

**Attachment B. GPC Air Construction Permits**

# Iowa Department of Natural Resources

## Air Quality Construction Permit

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### Permit Holder

**Firm:** Grain Processing Corporation

**Contact:**

Mick Durham  
Director of Environmental Services

563.264.4569

1600 Oregon Street  
Muscatine, IA 52761

**Responsible Party:**

Ron Zitzow  
Senior Vice President

1600 Oregon Street  
Muscatine, IA 52761

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### Permitted Equipment

**Emission Unit(s):** Power House- Boilers No. 1, No. 2, No.3, No.4, No.6, No.7  
(see condition 11 for Emission Unit Description)

**Control Equipment:** None

**Emission Point:** EP001.0

**Equipment Location:** 1600 Oregon Street  
Muscatine, IA 52761

**Plant Number:** 70-01-004

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Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Project No.	Description	Date	Stack Testing
95-A-374-S4	15-050	Establish PM2.5 & SO2 Limit, Eliminate Coal Combustion & Limit to Natural Gas Combustion Only	12/10/15	Yes



Under the Direction of the Director of  
the Department of Natural Resources

## PERMIT CONDITIONS

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### 1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

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### 2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) "*Maintenance and Repair*".

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### 3. Transferability

As limited by 567 IAC 22.3(3)"f", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment<sup>1</sup> (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

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<sup>1</sup> A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

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### 4. Construction

#### A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

#### 4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:

- (1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
- (2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
- (3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

#### B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:

- (1) Any changes are made to the final plans and specifications submitted for the proposed project; or
- (2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

#### C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:

- (1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
- (2) This current amendment becomes void.

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### 5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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### 6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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## 7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to \$10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

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## 8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:

- (1) Per 567 IAC 22.3(3)"b":
  - (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
  - (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
- (2) Per 567 IAC 22.3(3)"P", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
  - (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
  - (b) at least seven (7) days before equipment relocation.
- (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324

and include the following information:

- The date of ownership change,
  - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
  - The construction permit number(s) of the equipment changing ownership.
- (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
    - the time,
    - the place,
    - the name of the person who will conduct the tests,
    - and other information as required by the Department;

If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:

- (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
- (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
- (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
- (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.

## **8. Notification, Reporting, and Recordkeeping (Continued)**

- (5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;
- C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)
- D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9549  
Fax: (515) 725-9501

- E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9545  
Fax: (515) 725-9502

- F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	DNR Field Office 6 1023 West Madison Washington, IA 52353 Telephone: (319) 653-2135 Fax: (319) 653-2856
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## **9. Appeal Rights**

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

Director Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319
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## 10. Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr <sup>1</sup>	tons/yr <sup>2</sup>	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	6.78 <sup>3</sup>	NA	0.238 lbs/MMBtu <sup>1,4</sup>	23.3(2)"b"
PM <sub>10</sub>	6.78 <sup>3</sup>	NA	NA	NAAQS
PM <sub>2.5</sub>	6.78 <sup>5</sup>	NA	NA	NAAQS
Opacity	NA	NA	40% <sup>6,7</sup>	23.3(3)"d"
Sulfur Dioxide (SO <sub>2</sub> )-24hr NAAQs	3,915 <sup>8</sup>	NA	500 ppm <sub>v</sub>	23.3(3)"e"
Sulfur Dioxide (SO <sub>2</sub> )-1hr NAAQS	0.55 <sup>9</sup>	NA	NA	RACT
Nitrogen Oxides (NO <sub>x</sub> )	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	NA	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

- The emission limit is expressed as the average of three (3) runs.
- The emission limit is a twelve (12) month rolling total.
- The limit for PM<sub>10</sub> emissions is established to correspond to the emission rate used in the dispersion modeling required by the consent decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV016788, Iowa District Court in and for Muscatine County (July 17, 2006)].
- Emission limit established in Project 95-266.
- The limit for PM<sub>2.5</sub> emissions is established to address the "Finding of Substantial Inadequacy of Implementation Plan; Call for Iowa SIP Revision" for PM<sub>2.5</sub> published in the Federal Register (76 FR 9706) on February 22, 2011.
- The emission limit is a six (6) minute average.
- An exceedance of the indicator opacity of "No Visible Emissions" will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).
- This the combined total emission limit for Boilers No.1, No.2, No.3 No.4 No.6 and No.7. This limit is the averaged over 24-hour calendar day.
- The SO<sub>2</sub> limit is established to address the nonattainment designation for a portion of Muscatine County published in the Federal Register (78 FR 47191) on August 5, 2013. The nonattainment designation is for the 1-hour SO<sub>2</sub> primary national ambient air quality standard promulgated by EPA in 2010 (75 FR 35519, June 22, 2010).

## 11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	219 Feet
Discharge Style	Vertical Unobstructed Discharge
Stack Opening (inches, diameter)	180 inch Diameter
Exhaust Temperature (°F)	379 °F
Exhaust Flowrate (scfm)	263,400 scfm

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

The following emission units and control equipment are vented directly or indirectly through this emission point:

Emission Unit Description	Maximum Capacity
Power House-No.1 Boiler (EU5201.0)	120 MMBtu/hr
Power House-No.2 Boiler (EU5202.0)	120 MMBtu/hr
Power House-No.3 Boiler (EU5203.0)	105 MMBtu/hr
Power House-No.4 Boiler (EU5204.0)	105 MMBtu/hr
Power House-No.6 Boiler (EU5206.0)	230 MMBtu/hr
Power House-No.7 Boiler (EU5207.0)	230 MMBtu/hr

## 12. Compliance Demonstration(s)

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	Performance Testing	NA
PM – State	Yes	Performance Testing	One-Time
PM <sub>10</sub>	Yes <sup>1</sup>	Performance Testing	One-Time
PM <sub>2.5</sub>	Yes <sup>1</sup>	Performance Testing	One-Time
Opacity	No	Performance Testing	NA
SO <sub>2</sub>	No	Performance Testing	NA
NO <sub>x</sub>	No	Performance Testing	NA
VOC	No	Performance Testing	NA
CO	No	Performance Testing	NA
Pb	No	Performance Testing	NA
HAP	No	Performance Testing	NA

<sup>1</sup> Performance testing may be conducted for total particulate matter to demonstrate compliance with PM<sub>10</sub> and PM<sub>2.5</sub> limit as specified in permit condition 10.

**If an initial compliance demonstration specified above is testing,** the owner or the owner's authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 no later than one hundred eighty (180) days after the issuance date of this permit.

**If subsequent testing is specified above,** the owner or the owner's authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner's authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.



**12. Compliance Demonstration(s) (continued)**

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM <sub>10</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
PM <sub>2.5</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO <sub>2</sub>	1 hour	40 CFR 60, Appendix A, Method 6C
NO <sub>x</sub>	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18 or 40 CFR 63, Appendix A, Method 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

Per 567 IAC 25.1(7)"a", at the Department's request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

**13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability**

Power House- Boilers No. 1, No. 2, No.3, No.4, No.6, and No.7 are not subject to any New Source Performance Standard at this time. There are no applicable subparts at this time.

**For information only:** Power House- Boilers No. 1, No. 2, No.3, No.4, No.6, and No.7 are of the source category affected by the following federal regulations: National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers [40 CFR Part 63 Subpart DDDDD].

#### 14. Operating Limits

- A. The owner or operator shall not vent emissions from Boiler No.1, No.2 No. 3, No.4, No.6, and No.7 through the Bypass Stacks, i.e. "Short Stacks" associated with each boiler.
- B. The owner or operator shall permanently cease operation and decommission the combustion of coal in Power House Boilers No.1, No.2, No.3, No.4, No.6, and No.7 by July 15, 2015. As required by the consent order, judgment, and decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV020979, Iowa District Court for Muscatine County (March 27, 2014)].
- C. The owner or operator shall combust natural gas fuel only in Power House Boilers No.1, No.2, No.3, No.4, No.6, and No.7 after July 15, 2015. As required by the consent order, judgment, and decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV020979, Iowa District Court for Muscatine County (March 27, 2014)].

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#### 15. Operating Condition Monitoring and Recordkeeping

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. The owner or operator shall maintain a record of the date that coal combustion permanently ceased in Power House Boilers No.1, No.2, No.3, No.4, No.6, and No.7.

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#### 16. Continuous Emission Monitoring

After the owner or operator permanently ceases operation and decommissions the combustion of coal in Power House Boilers No.1, No.2, No.3, No.4, No.6, and No.7 by or before July 15, 2015, the owner or operator is no longer required to maintain or operate continuous emission monitoring systems (CEMS) to measure Sulfur Dioxide and opacity. Continuous emission monitoring is not required by this permit at this time.

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#### 17. Permit History

Permit No.	Project No.	Description	Date	Stack Testing
95-A-374	95-266	Original Permit	09/18/95	Yes
95-A-374-S1	02-547	List All Control Equipment	10/28/02	None
95-A-374-S2	03-277	Amended Capacities	06/24/03	None
95-A-374-S3	06-566	Add Baghouse, Subpart DDDDD Standards, Remove ESP on Boiler 7	03/29/07	Yes

## 18. Description of Terms and Acronyms

*The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.*

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
PM <sub>2.5</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM <sub>10</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm <sub>v</sub>	parts per million by volume
ppm <sub>w</sub>	parts per million by weight
RACT	Reasonable Available Control Technology
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

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**END OF PERMIT**

# Iowa Department of Natural Resources

## Air Quality Construction Permit

### Permit Holder

**Firm:** Grain Processing Corporation

**Contact:**

Mick Durham  
Director of Environmental Services

(563) 264-4569

1600 Oregon Street  
Muscatine, IA 52761

**Responsible Party:**

Ron Zitzow  
Senior Vice President

1600 Oregon Street  
Muscatine, IA 52761

### Permitted Equipment

**Emission Unit(s):** #1 Wet Germ Cyclone to the #1 North Top Rotary Germ Drier (EU 2801.0)  
Maximum Capacity: 6.65 tons of wet germ per hour

**Control Equipment:** Carter-Day Cyclone (CE2801-1)

**Emission Point:** EP014.0

**Equipment Location:** 1600 Oregon Street  
Muscatine, IA 52761

**Plant Number:** 70-01-004

Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Proj. No.	Description	Date	Stack Testing
15-A-078	15-050	Establish PM, PM <sub>10</sub> , PM <sub>2.5</sub> , and SO <sub>2</sub> Emission Limits for a Grandfathered Unit	12/10/15	Yes



Under the Direction of the Director of  
the Department of Natural Resources

## PERMIT CONDITIONS

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### 1. Departmental Review

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No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

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Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) "*Maintenance and Repair*".

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As limited by 567 IAC 22.3(3)"F", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment<sup>1</sup> (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

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<sup>1</sup> A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

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### 4. Construction

#### A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

#### 4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:

- (1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
- (2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
- (3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

#### B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:

- (1) Any changes are made to the final plans and specifications submitted for the proposed project; or
- (2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

#### C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:

- (1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
- (2) This current amendment becomes void.

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### 5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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### 6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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## 7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to \$10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

## 8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:

- (1) Per 567 IAC 22.3(3)"b":
  - (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
  - (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
- (2) Per 567 IAC 22.3(3)"P", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
  - (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
  - (b) at least seven (7) days before equipment relocation.
- (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324

and include the following information:

- The date of ownership change,
  - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
  - The construction permit number(s) of the equipment changing ownership.
- (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
- the time,
  - the place,
  - the name of the person who will conduct the tests,
  - and other information as required by the Department;

If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:

- (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
- (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
- (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
- (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.

**8. Notification, Reporting, and Recordkeeping (Continued)**

- (5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;
- C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)
- D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9549  
Fax: (515) 725-9501

- E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9545  
Fax: (515) 725-9502

- F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	DNR Field Office 6 1023 West Madison Washington, IA 52353-1623 Telephone: (319) 653-2135 Fax: (319) 653-2856
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**9. Appeal Rights**

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

Director Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319
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## 10. Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr <sup>1</sup>	tons/yr <sup>2</sup>	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	0.11 <sup>3</sup>	NA	0.1 gr/dscf	Requested limit, 23.4(7)
PM <sub>10</sub>	0.11 <sup>4</sup>	NA	NA	NAAQS
PM <sub>2.5</sub>	0.028 <sup>5</sup>	NA	NA	NAAQS
Opacity	NA	NA	40% <sup>6,7</sup>	23.3(2)"d"
Sulfur Dioxide (SO <sub>2</sub> )	0.40 <sup>8</sup>	NA	500 ppm <sub>v</sub>	RACT and 23.3(3)"e"
Nitrogen Oxides (NO <sub>x</sub> )	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	NA	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

<sup>1</sup> The emission limit is expressed as the average of three (3) runs.

<sup>2</sup> The emission limit is a twelve (12) month rolling total.

<sup>3</sup> Limit requested by GPC to restrict potential emissions.

<sup>4</sup> The limit for PM<sub>10</sub> emissions is established to correspond to the emission rate used in the dispersion modeling required by the consent decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV016788, Iowa District Court in and for Muscatine County (July 17, 2006)].

<sup>5</sup> The limit for PM<sub>2.5</sub> emissions is established to address the "Finding of Substantial Inadequacy of Implementation Plan; Call for Iowa SIP Revision" for PM<sub>2.5</sub> published in the Federal Register (76 FR 9706) on February 22, 2011.

<sup>6</sup> The emission limit is a six (6) minute average.

<sup>7</sup> An exceedance of the indicator opacity of (10%) will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).

<sup>8</sup> The SO<sub>2</sub> limit is established to address the nonattainment designation for a portion of Muscatine County published in the Federal Register (78 FR 47191) on August 5, 2013. The nonattainment designation is for the 1-hour SO<sub>2</sub> primary national ambient air quality standard promulgated by EPA in 2010 (75 FR 35519, June 22, 2010).

## 11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	56 Feet
Discharge Style	Vertical, unobstructed
Stack Opening (inches)	8 inches x 13 inches
Exhaust Temperature (°F)	Ambient
Exhaust Flowrate (scfm)	890 scfm

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**12. Compliance Demonstration(s)**

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	NA	NA
PM – State	Yes	Stack Test	One Time
PM <sub>10</sub>	Yes <sup>1</sup>	Stack Test	One Time
PM <sub>2.5</sub>	Yes <sup>2</sup>	Stack Test	One Time
Opacity	Yes	Stack Test	One Time
SO <sub>2</sub>	Yes	Stack Test	One Time
NO <sub>x</sub>	No	NA	NA
VOC	No	NA	NA
CO	No	NA	NA
Pb	No	NA	NA
HAP	No	NA	NA

<sup>1</sup> It is acceptable to test for PM and to assume that all PM emissions are PM<sub>10</sub> emissions.

<sup>2</sup> If method 40 CFR 51, Appendix M, 201A cannot be performed due to stack blockage, then the owner operator shall add a temporary stack extension to perform method 40 CFR 51, Appendix M, 201A. The temporary stack extension shall conform to 40 CFR Part 60, Appendix A, Method 1.

**If an initial compliance demonstration specified above is testing**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 within 6-months from the issuance date of this permit.

**If subsequent testing is specified above**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner’s authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM <sub>10</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
PM <sub>2.5</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO <sub>2</sub>	1 hour	40 CFR 60, Appendix A, Method 6C
NO <sub>x</sub>	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18 or 40 CFR 63, Appendix A, Method 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

Per 567 IAC 25.1(7)"a", at the Department’s request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

**12. Compliance Demonstration(s) (Continued)**

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

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**13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability**

- A. This emission unit is not subject to the New Source Performance Standards (NSPS) as there are no subparts for this source category.
- B. This emission unit is not subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) as there are no subparts for this source category at this time.

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**14. Operating Limits**

Operating limits for this emission unit shall be:

- A. The owner or operator shall develop an operating and maintenance plan for the cyclone (CE2801-1), including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.

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**15. Operating Condition Monitoring and Recordkeeping**

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the cyclone (CE2801-1).

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**16. Continuous Emission Monitoring**

Continuous emission monitoring is not required by this permit at this time.

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**17. Permit History**

Permit No.	Proj. No.	Description	Date	Stack Testing

## 18. Description of Terms and Acronyms

*The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.*

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
PM <sub>2.5</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM <sub>10</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm <sub>v</sub>	parts per million by volume
ppm <sub>w</sub>	parts per million by weight
RACT	Reasonably Available Control Technology
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

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**END OF PERMIT**

# Iowa Department of Natural Resources

## Air Quality Construction Permit

### Permit Holder

**Firm:** Grain Processing Corporation

**Contact:**

Mick Durham  
Director of Environmental Services

(563) 264-4569  
1600 Oregon Street  
Muscatine, IA 52761

**Responsible Party:**

Ron Zitzow  
Senior Vice President

### Permitted Equipment

**Emission Unit(s):**

#1 North Top Rotary Germ Drier (EU 2802.0), #2 North Bottom Rotary Germ Drier (EU 2802.1), maximum capacity of 13.3 tons per hour of dried germ

**or**

#1 North Top Rotary Germ Drier (EU 2802.0), maximum capacity of 6.65 tons per hour of dried germ  
#2 North Bottom Rotary Germ Drier (EU 2802.1), maximum capacity of 6.65 tons per hour of dried germ

**Control Equipment:**

Cyclone (CE2802-1)  
Packed Bed Scrubber (CE2802-2)

**Emission Point:**

EP15.0

**Equipment Location:**

1600 Oregon Street  
Muscatine, IA 52761

**Plant Number:**

70-01-004

Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Project No.	Description	Date	Stack Testing
79-A-194-S2	15-050	Add PM <sub>10</sub> and PM <sub>2.5</sub> Emission Limits; Add Scrubber; Modify SO <sub>2</sub> Limit; Modify EU Description	12/10/15	Yes



Under the Direction of the Director of  
the Department of Natural Resources  
CPFP|7001004|121015|15050|79A194S2

## PERMIT CONDITIONS

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### 1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

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### 2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) "*Maintenance and Repair*".

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### 3. Transferability

As limited by 567 IAC 22.3(3)"f", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment<sup>1</sup> (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

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<sup>1</sup> A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

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### 4. Construction

#### A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

#### 4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:

- (1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
- (2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
- (3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

#### B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:

- (1) Any changes are made to the final plans and specifications submitted for the proposed project; or
- (2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

#### C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:

- (1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
- (2) This current amendment becomes void.

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### 5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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### 6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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## 7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to \$10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

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## 8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:

- (1) Per 567 IAC 22.3(3)"b":
  - (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
  - (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
- (2) Per 567 IAC 22.3(3)"P", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
  - (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
  - (b) at least seven (7) days before equipment relocation.
- (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324

and include the following information:

- The date of ownership change,
  - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
  - The construction permit number(s) of the equipment changing ownership.
- (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
    - the time,
    - the place,
    - the name of the person who will conduct the tests,
    - and other information as required by the Department;

If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:

- (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
- (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
- (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
- (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.



**8. Notification, Reporting, and Recordkeeping (Continued)**

(5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;

C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)

D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9549  
Fax: (515) 725-9501

E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9545  
Fax: (515) 725-9502

F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	DNR Field Office 6 1023 West Madison Washington, IA 52353 Telephone: (319) 653-2135 Fax: (319) 653-2856
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**9. Appeal Rights**

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

Director Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319
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**10. Emission Limits**

The following emission limits shall not be exceeded:

Pollutant	lb/hr <sup>1</sup>	tons/yr <sup>2</sup>	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	0.84 <sup>3</sup>	NA	0.1 gr/dscf	23.4(7)
PM <sub>10</sub>	0.84 <sup>4</sup>	NA	NA	NAAQS
PM <sub>2.5</sub>	0.239 <sup>5</sup>	NA	NA	NAAQS
Opacity	NA	NA	40% <sup>6,7</sup>	23.3(2)"d"
Sulfur Dioxide (SO <sub>2</sub> )	1.50 <sup>8</sup>	NA	500 ppm <sub>v</sub>	RACT, 23.3(3)"e"
Nitrogen Oxides (NO <sub>x</sub> )	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	NA	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

1. The emission limit is expressed as the average of three (3) runs.
2. The emission limit is a twelve (12) month rolling total.
3. The PM limit maintains Projects 79-222 and 79-265 as minor for purposes of LAER.
4. The limit for PM<sub>10</sub> emissions is established to correspond to the emission rate used in the dispersion modeling required by the consent decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV016788, Iowa District Court in and for Muscatine County (July 17, 2006)].
5. The limit for PM<sub>2.5</sub> emissions is established to address the "Finding of Substantial Inadequacy of Implementation Plan; Call for Iowa SIP Revision" for PM<sub>2.5</sub> published in the Federal Register (76 FR 9706) on February 22, 2011.
6. The emission limit is a six (6) minute average.
7. An exceedance of the indicator opacity of 10% will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).
8. The SO<sub>2</sub> limit is established to address the nonattainment designation for a portion of Muscatine County published in the Federal Register (78 FR 47191) on August 5, 2013. The nonattainment designation is for the 1-hour SO<sub>2</sub> primary national ambient air quality standard promulgated by EPA in 2010 (75 FR 35519, June 22, 2010).

**11. Emission Point Characteristics**

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	94 Feet
Discharge Style	Vertical Unobstructed
Stack Opening (inches, diameter)	18.5 inches x 21.5 inches
Exhaust Temperature (°F)	226 °F
Exhaust Flowrate (scfm)	5,500 scfm

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**12. Compliance Demonstration(s)**

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	Performance Testing	NA
PM – State	Yes	Performance Testing	Once Every 3 Calendar Years <sup>1</sup>
PM <sub>10</sub>	Yes <sup>2</sup>	Performance Testing	Once Every 3 Calendar Years <sup>1</sup>
PM <sub>2.5</sub>	Yes <sup>3</sup>	Performance Testing	Once Every 3 Calendar Years <sup>1</sup>
Opacity	Yes	Performance Testing	Once Every 3 Calendar Years <sup>1</sup>
SO <sub>2</sub>	Yes	Performance Testing	Once Every 3 Calendar Years <sup>1</sup>
NO <sub>x</sub>	No	Performance Testing	NA
VOC	No	Performance Testing	NA
CO	No	Performance Testing	NA
Pb	No	Performance Testing	NA
HAP	No	Performance Testing	NA

<sup>1</sup> After the initial performance test, performance testing for PM, PM<sub>10</sub>, PM<sub>2.5</sub>, opacity, and SO<sub>2</sub> shall be conducted once every 3 calendar years. After completion of three consecutive performance tests that demonstrate compliance with the PM, PM<sub>10</sub>, PM<sub>2.5</sub>, opacity, and SO<sub>2</sub> emission limits in Condition 10, the owner or operator may request to modify the performance testing frequency for PM, PM<sub>10</sub>, PM<sub>2.5</sub>, opacity, and SO<sub>2</sub>.

<sup>2</sup> It is acceptable to test for PM and to assume that all PM emissions are PM<sub>10</sub> emissions.

<sup>3</sup> If performance testing using methods specified in 40 CFR Part 51, Appendix M, 201A with 202 are not performed due to high moisture content (stack saturation), the owner or operator shall demonstrate compliance with the PM<sub>2.5</sub> limit as specified in Condition 10 by using methods specified in 40 CFR Part 60, Appendix A, Method 5 and 40 CFR Part 51, Appendix M, Method 202. Using Method 5, the filterable PM<sub>2.5</sub> fraction shall be determined by conducting internal particle sizing of the dried germ product (immediately following the dryer) to determine the PM<sub>2.5</sub> fraction of the measured total filterable particulate. The entire condensable fraction, measured by using Method 202, shall be considered PM<sub>2.5</sub>.

**If an initial compliance demonstration specified above is testing**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 no later than one hundred and twenty days (120) days after the installation of the Packed Bed Scrubber (CE2802-2) is completed.

**If subsequent testing is specified above**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner’s authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM <sub>10</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
PM <sub>2.5</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO <sub>2</sub>	1 hour	40 CFR 60, Appendix A, Method 6C
NO <sub>x</sub>	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18 or 40 CFR 63, Appendix A, Method 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

## 12. Compliance Demonstration(s) (Continued)

Per 567 IAC 25.1(7)"a", at the Department's request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

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## 13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability

These emission units are not subject to any New Source Performance Standard or National Emission Standards for Hazardous Air Pollutants (NESHAP) at this time. There are no applicable subparts.

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## 14. Operating Limits

Operating limits for this emission unit shall be:

- A. The owner or operator shall develop an operating and maintenance plan for the cyclone (CE2802-1), including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routing and long-term maintenance.
- B. By no later than August 30, 2017, the owner or operator shall install the Packed Bed Scrubber (CE2802-2) to control SO<sub>2</sub> emissions from Germ Driers #1 and #2 (EU2802.0, EU2802.1).
- C. No later than 60 days prior to initiating modification of Germ Driers #1 and #2 (EU2802.0, EU2802.1) by installing the Packed Bed Scrubber (CE2802-2), the owner or operator shall apply to modify this construction permit. In the application, the owner or operator shall include, at a minimum, the following information to the Department: the manufacturer and model number of the scrubber, the total liquor flow rate to the scrubber, the recycled liquor flow rate to the scrubber, the pH of the liquor used in the scrubber, the reagents used in the liquor of the scrubber, the pressure drop range across the scrubber, the pollutants controlled and an estimate of the scrubber's control efficiency for the different air pollutants.

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## 15. Operating Condition Monitoring and Recordkeeping

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the cyclone (CE2802-1).
- B. The owner or operator shall maintain a record of the completion date for the installation of the Packed Bed Scrubber (CE2802-2).

- C. The owner or operator shall develop for the Packed Bed Scrubber (CE2802-2) a monitoring system that will monitor and record continuously scrubber operating parameters to ensure continuous compliance with the emission limits. Such parameters shall include, but are not limited to, the total liquor flow rate to the scrubber, the pressure drop across the scrubber, and the pH of the scrubber's liquor.

## 16. Continuous Emission Monitoring

Continuous emission monitoring is not required by this permit at this time.

## 17. Permit History

Permit No.	Project No.	Description	Date	Stack Testing
79-A-194	79-265	Original Permit	08/17/79	No
79-A-194-S1	95-266	Add SO <sub>2</sub> Emission Limit	09/18/95	No

## 18. Description of Terms and Acronyms

*The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.*

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
PM <sub>2.5</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM <sub>10</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm <sub>v</sub>	parts per million by volume
ppm <sub>w</sub>	parts per million by weight

RACT	Reasonably Available Control Technology
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

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**END OF PERMIT**

# Iowa Department of Natural Resources

## Air Quality Construction Permit

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### Permit Holder

**Firm:** Grain Processing Corporation

**Contact:**

Mick Durham  
Director of Environmental Services

(563) 264-4569

1600 Oregon Street  
Muscatine, IA 52761

**Responsible Party:**

Ron Zitzow  
Senior Vice President

1600 Oregon Street  
Muscatine, IA 52761

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### Permitted Equipment

**Emission Unit(s):** Gluten Day Bin (EU1213.0)  
Maximum Capacity: 6.85 tons of gluten per hour (load-in rate)

**Control Equipment:** Fabric Filter Baghouse (CE1213-1)

**Emission Point:** EP38.0


**Equipment Location:** 1600 Oregon Street  
Muscatine, IA 52761

**Plant Number:** 70-01-004

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Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Proj. No.	Description	Date	Stack Testing
71-A-067-S4	15-050	Modify PM and PM <sub>10</sub> emission limit, add PM <sub>2.5</sub> and SO <sub>2</sub> emission limits	12/10/15	Yes



Under the Direction of the Director of  
the Department of Natural Resources

## PERMIT CONDITIONS

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### 1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

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### 2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) "*Maintenance and Repair*".

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### 3. Transferability

As limited by 567 IAC 22.3(3)"P", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment<sup>1</sup> (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

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<sup>1</sup> A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

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### 4. Construction

#### A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.



#### 4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:

- (1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
- (2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
- (3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

##### B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:

- (1) Any changes are made to the final plans and specifications submitted for the proposed project; or
- (2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

##### C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:

- (1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
- (2) This current amendment becomes void.

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#### 5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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#### 6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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## 7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to \$10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

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## 8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:

- (1) Per 567 IAC 22.3(3)"b":
  - (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
  - (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
- (2) Per 567 IAC 22.3(3)"f", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
  - (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
  - (b) at least seven (7) days before equipment relocation.
- (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324

and include the following information:

- The date of ownership change,
  - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
  - The construction permit number(s) of the equipment changing ownership.
- (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
- the time,
  - the place,
  - the name of the person who will conduct the tests,
  - and other information as required by the Department;

If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:

- (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
- (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
- (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
- (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.

**8. Notification, Reporting, and Recordkeeping (Continued)**

(5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;

C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)

D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9549  
Fax: (515) 725-9501

E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9545  
Fax: (515) 725-9502

F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	DNR Field Office 6 1023 West Madison Washington, IA 52353-1623 Telephone: (319) 653-2135 Fax: (319) 653-2856
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**9. Appeal Rights**

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

Director Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319
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## 10. Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr <sup>1</sup>	tons/yr <sup>2</sup>	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	0.14 <sup>3</sup>	NA	0.1 gr/dscf	23.4(7)
PM <sub>10</sub>	0.14 <sup>4</sup>	NA	NA	NAAQS
PM <sub>2.5</sub>	0.027 <sup>5</sup>	NA	NA	NAAQS
Opacity	NA	NA	40% <sup>6,7</sup>	23.3(2)"d"
Sulfur Dioxide (SO <sub>2</sub> )	0.16 <sup>8</sup>	NA	5.0 ppm <sub>v,d</sub> <sup>9</sup>	RACT
Nitrogen Oxides (NO <sub>x</sub> )	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	5.0 ppm <sub>v,d</sub> <sup>9</sup>	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

<sup>1</sup> The emission limit is expressed as the average of three (3) runs.

<sup>2</sup> The emission limit is a twelve (12) month rolling total.

<sup>3</sup> Limit requested by GPC to restrict potential emissions.

<sup>4</sup> The limit for PM<sub>10</sub> emissions is established to correspond to the emission rate used in the dispersion modeling required by the consent decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV016788, Iowa District Court in and for Muscatine County (July 17, 2006)].

<sup>5</sup> The limit for PM<sub>2.5</sub> emissions is established to address the "Finding of Substantial Inadequacy of Implementation Plan; Call for Iowa SIP Revision" for PM<sub>2.5</sub> published in the Federal Register (76 FR 9706) on February 22, 2011.

<sup>6</sup> The emission limit is a six (6) minute average.

<sup>7</sup> An exceedance of the indicator opacity of no visible emissions will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).

<sup>8</sup> The SO<sub>2</sub> limit is established to address the nonattainment designation for a portion of Muscatine County published in the Federal Register (78 FR 47191) on August 5, 2013. The nonattainment designation is for the 1-hour SO<sub>2</sub> primary national ambient air quality standard promulgated by EPA in 2010 (75 FR 35519, June 22, 2010).

<sup>9</sup> The limit for SO<sub>2</sub> and VOC emissions as required by the consent order, judgment, and decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV020979, Iowa District Court for Muscatine County (March 27, 2014)].

## 11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	43 Feet
Discharge Style	Vertical, unobstructed
Stack Opening (inches)	12 inches
Exhaust Temperature (°F)	77 °F
Exhaust Flowrate (scfm)	3293 scfm

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**12. Compliance Demonstration(s)**

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	NA	NA
PM – State	Yes	Performance Testing	One Time
PM <sub>10</sub>	Yes <sup>1</sup>	Performance Testing	One Time
PM <sub>2.5</sub>	Yes <sup>2</sup>	Performance Testing	One Time
Opacity	Yes	Performance Testing	One Time
SO <sub>2</sub>	Yes	Performance Testing	One Time
NO <sub>x</sub>	No	NA	NA
VOC	Yes	Performance Testing	One Time
CO	No	NA	NA
Pb	No	NA	NA
HAP	No	NA	NA

<sup>1</sup> It is acceptable to test for PM and to assume that all PM emissions are PM<sub>10</sub> emissions.

<sup>2</sup> If method 40 CFR 51, Appendix M, 201A cannot be performed due to stack blockage, then the owner operator shall add a temporary stack extension to perform method 40 CFR 51, Appendix M, 201A. The temporary stack extension shall conform to 40 CFR Part 60, Appendix A, Method 1.

**If an initial compliance demonstration specified above is testing**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 no later than one hundred and twenty (120) days after the issuance date of this permit.

**If subsequent testing is specified above**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner’s authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hours	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM <sub>10</sub>	1 hours	40 CFR 51, Appendix M, 201A with 202
PM <sub>2.5</sub>	3 hours	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO <sub>2</sub>	1 hour	40 CFR 60, Appendix A, Method 6C
NO <sub>x</sub>	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18 or 40 CFR 63, Appendix A, Method 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

## **12. Compliance Demonstration(s) (Continued)**

Per 567 IAC 25.1(7)"a", at the Department's request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

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## **13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability**

- A. This emission unit is not subject to the New Source Performance Standards (NSPS) as there are no subparts for this source category.
- B. This emission unit is not subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) as there are no subparts for this source category at this time.

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## **14. Operating Limits**

Operating limits for this emission unit shall be:

- A. The Baghouse's (CE1213-1) differential pressure drop shall be maintained between 0.1 and 4 inches water column.
  - B. The owner or operator shall properly operate and maintain equipment to periodically monitor the differential pressure drop across the Baghouse (CE1213-1). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
  - C. The owner or operator shall develop an operating and maintenance plan for the Baghouse (CE1213-1), including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
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**15. Operating Condition Monitoring and Recordkeeping**

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. The owner or operator shall collect and record the pressure drop across the Baghouse (CE1213-1), in inches of water, at least once per day. If the pressure drop across the Baghouse (CE1213-1) falls outside the range specified in Condition 14 A., the owner or operator shall investigate the Baghouse (CE1213-1) and make corrections to it. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the Baghouse (CE1213-1) is not in operation.
- B. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Baghouse (CE1213-1).

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**16. Continuous Emission Monitoring**

Continuous emission monitoring is not required by this permit at this time.

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**17. Permit History**

Permit No.	Proj. No.	Description	Date	Stack Testing
71-A-067		Original Permit	10/22/71	No
71-A-067-S1		Change Elevation to Cyclone B and discharge into two bins	07/22/75	No
71-A-067-S2	06-163	Replace Control Equipment with New Baghouse	07/20/06	Yes
71-A-067-S3	07-354	Corrected Exhaust Flowrate	07/05/07	No

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## 18. Description of Terms and Acronyms

*The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.*

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
PM <sub>2.5</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM <sub>10</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm <sub>v</sub>	parts per million by volume
ppm <sub>w</sub>	parts per million by weight
RACT	Reasonably Available Control Technology
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

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**END OF PERMIT**



# Iowa Department of Natural Resources

## Air Quality Construction Permit

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### Permit Holder

**Firm:** Grain Processing Corporation

**Contact:**

Mick Durham  
Director of Environmental Services

(563) 264-4569

1600 Oregon Street  
Muscatine, IA 52761

**Responsible Party:**

Ron Zitzow  
Senior Vice President

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### Permitted Equipment

**Emission Unit(s):**

#1 Gluten Flash Dryer (EU 1217.0)  
#1 Gluten Flash Dryer Direct Fired Burner (EU1217.1)  
#2 Gluten Flash Dryer (EU 1217.2)  
#2 Gluten Flash Dryer Direct Fired Burner (EU1217.3)  
Maximum feed rate capacity of 1.35 tons per hour of gluten for each dryer  
Maximum capacity of 16 MMBtu/hr heat input for each burner, (natural gas combustion only)

**Control Equipment:**

Product Recovery Cyclones, Venturi Scrubber (CE1217-1) and Packed Bed Scrubber (CE1217-2)

**Emission Point:**

EP43.1

**Equipment Location:**

1600 Oregon Street  
Muscatine, IA 52761

**Plant Number:**

70-01-004

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Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Project No.	Description	Date	Stack Testing
75-A-087-S1	15-050	Modify Scrubbers; Add PM <sub>10</sub> , PM <sub>2.5</sub> and SO <sub>2</sub> Emission Limits	12/10/15	Yes



Under the Direction of the Director of  
the Department of Natural Resources

## PERMIT CONDITIONS

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### 1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

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### 2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) "*Maintenance and Repair*".

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### 3. Transferability

As limited by 567 IAC 22.3(3)"F", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment<sup>1</sup> (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

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<sup>1</sup> A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

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### 4. Construction

#### A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

#### 4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:

- (1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
- (2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
- (3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

#### B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:

- (1) Any changes are made to the final plans and specifications submitted for the proposed project; or
- (2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

#### C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:

- (1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
- (2) This current amendment becomes void.

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#### 5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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#### 6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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## 7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to \$10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

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## 8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:

- (1) Per 567 IAC 22.3(3)"b":
  - (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
  - (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
- (2) Per 567 IAC 22.3(3)"f", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
  - (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
  - (b) at least seven (7) days before equipment relocation.
- (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324

and include the following information:

- The date of ownership change,
  - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
  - The construction permit number(s) of the equipment changing ownership.
- (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
- the time,
  - the place,
  - the name of the person who will conduct the tests,
  - and other information as required by the Department;

If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:

- (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
- (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
- (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
- (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.

- C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)
- D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9549  
Fax: (515) 725-9501

- E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9545  
Fax: (515) 725-9502

- F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	DNR Field Office 6 1023 West Madison Washington, IA 52353 Telephone: (319) 653-2135 Fax: (319) 653-2856
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## 9. Appeal Rights

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

Director Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319
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## 10. Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr <sup>1</sup>	tons/yr <sup>2</sup>	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	6.0 <sup>3</sup>	NA	0.1 gr/dscf	Requested limit, 23.4(7)
PM <sub>10</sub>	6.0 <sup>4</sup>	NA	NA	NAAQS
PM <sub>2.5</sub>	1.140 <sup>5</sup>	NA	NA	NAAQS
Opacity	NA	NA	40% <sup>6,7</sup>	23.3(2)"d"
Sulfur Dioxide (SO <sub>2</sub> )	0.95 <sup>8</sup>	NA	500 ppm <sub>v</sub>	RACT, 23.3(3)"e"
Nitrogen Oxides (NO <sub>x</sub> )	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	NA	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
Carbon Dioxide equivalents (CO <sub>2</sub> e)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

1. The emission limit is expressed as the average of three (3) runs.
2. The emission limit is a twelve (12) month rolling total.
3. Limit requested by GPC to restrict potential emissions.
4. The limit for PM<sub>10</sub> emissions is established to correspond to the emission rate used in the dispersion modeling required by the consent decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV016788, Iowa District Court in and for Muscatine County (July 17, 2006)].
5. The limit for PM<sub>2.5</sub> emissions is established to address the "Finding of Substantial Inadequacy of Implementation Plan; Call for Iowa SIP Revision" for PM<sub>2.5</sub> published in the Federal Register (76 FR 9706) on February 22, 2011.
6. The emission limit is a six (6) minute average.
7. An exceedance of the indicator opacity of 10% will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).
8. The SO<sub>2</sub> limit is established to address the nonattainment designation for a portion of Muscatine County published in the Federal Register (78 FR 47191) on August 5, 2013. The nonattainment designation is for the 1-hour SO<sub>2</sub> primary national ambient air quality standard promulgated by EPA in 2010 (75 FR 35519, June 22, 2010).

## 11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	140 Feet
Discharge Style	Vertical Unobstructed
Stack Opening (inches, diameter)	42 inches
Exhaust Temperature (°F)	131 °F
Exhaust Flowrate (scfm)	34,481 scfm

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**12. Compliance Demonstration(s)**

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	Performance Testing	NA
PM – State	Yes	Performance Testing	Once Every 3 Calendar Years <sup>1</sup>
PM <sub>10</sub>	Yes <sup>2</sup>	Performance Testing	Once Every 3 Calendar Years <sup>1</sup>
PM <sub>2.5</sub>	Yes <sup>3</sup>	Performance Testing	Once Every 3 Calendar Years <sup>1</sup>
Opacity	Yes	Performance Testing	Once Every 3 Calendar Years <sup>1</sup>
SO <sub>2</sub>	Yes	Performance Testing	Once Every 3 Calendar Years <sup>1</sup>
NO <sub>x</sub>	No	Performance Testing	NA
VOC	No	Performance Testing	NA
CO	No	Performance Testing	NA
Pb	No	Performance Testing	NA
HAP	No	Performance Testing	NA

<sup>1</sup> After the initial performance test, performance testing for PM, PM<sub>10</sub>, PM<sub>2.5</sub>, opacity, and SO<sub>2</sub> shall be conducted once every 3 calendar years. After completion of three consecutive performance tests that demonstrate compliance with the PM, PM<sub>10</sub>, PM<sub>2.5</sub>, opacity, and SO<sub>2</sub> emission limits in Condition 10, the owner or operator may request to modify the performance testing frequency for PM, PM<sub>10</sub>, PM<sub>2.5</sub>, opacity and SO<sub>2</sub>.

<sup>2</sup> It is acceptable to test for PM and to assume that all PM emissions are PM<sub>10</sub> emissions.

<sup>3</sup> If performance testing using methods specified in 40 CFR Part 51, Appendix M, 201A with 202 are not performed due to high moisture content (stack saturation), the owner or operator shall demonstrate compliance with the PM<sub>2.5</sub> limit as specified in Condition 10 by using methods specified in 40 CFR Part 60, Appendix A, Method 5 and 40 CFR Part 51, Appendix M, Method 202. Using Method 5, the filterable PM<sub>2.5</sub> fraction shall be determined by conducting internal particle sizing of the dried gluten product (immediately following the dryer) to determine the PM<sub>2.5</sub> fraction of the measured total filterable particulate. The entire condensable fraction, measured by using Method 202, shall be considered PM<sub>2.5</sub>.

**If an initial compliance demonstration specified above is testing**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 for PM, PM<sub>10</sub>, PM<sub>2.5</sub>, opacity, and SO<sub>2</sub> within one hundred and twenty days (120) days after the modifications to the Venturi Scrubber (CE1217-1) and the Packed Bed Scrubber (CE1217-2) are completed.

**If subsequent testing is specified above**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner’s authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM <sub>10</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
PM <sub>2.5</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO <sub>2</sub>	1 hour	40 CFR 60, Appendix A, Method 6C
NO <sub>x</sub>	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18 or 40 CFR 63, Appendix A, Method 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
HAP	1 hour	40 CFR 60, Appendix A, Method 18

## **12. Compliance Demonstration(s) (Continued)**

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

Per 567 IAC 25.1(7)"a", at the Department's request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

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## **13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability**

- A. This emission unit is not subject to the New Source Performance Standards (NSPS) as there are no subparts for this source category.
- B. This emission unit is not subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) as there are no subparts for this source category at this time.

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## **14. Operating Limits**

Operating limits for this emission unit shall be:

- A. The owner or operator shall modify the Venturi Scrubber (CE1217-1) and the Packed Bed Scrubber (CE1217-2) by improving operation and by changing to a higher collection efficiency packing by August 1, 2016.
  - B. No later than 60 days prior to initiating modification of the Venturi Scrubber (CE1217-1) and the Packed Bed Scrubber (CE1217-2), the owner or operator shall apply to modify this construction permit. In the application, the owner or operator shall include, at a minimum, the following information to the Department for each scrubber: the manufacturer and model number of the scrubber, the total liquor flow rate to the scrubber, the recycled liquor flow rate to the scrubber, the pH of the liquor used in the scrubber, the reagents used in the liquor of the scrubber, the pressure drop range across the scrubber, the pollutants controlled and an estimate of the scrubber's control efficiency for the different air pollutants.
  - C. The owner or operator shall develop an operating and maintenance plan for the Product Recovery Cyclones, including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
  - D. The owner or operator shall increase the stack height of EP43.1 from 96 feet to 140 feet above ground by August 1, 2016.
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**15. Operating Condition Monitoring and Recordkeeping**

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. The owner or operator shall maintain a record of the completion date for the modification to the Venturi Scrubber (CE1217-1) and the Packed Bed Scrubber (CE1217-2) to improve operation and to change to a higher collection efficiency packing.
- B. The owner or operator shall develop for the Venturi Scrubber (CE1217-1) a monitoring system that will monitor and record continuously scrubber operating parameters to ensure continuous compliance with the emission limits. Such parameters shall include, but are not limited to, the total liquor flow rate to the scrubber, the pressure drop across the scrubber, and the pH of the scrubber's liquor.
- C. The owner or operator shall develop for the Packed Bed Scrubber (CE1217-2) a monitoring system that will monitor and record continuously scrubber operating parameters to ensure continuous compliance with the emission limits. Such parameters shall include, but are not limited to, the total liquor flow rate to the scrubber, the pressure drop across the scrubber, and the pH of the scrubber's liquor.
- D. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Product Recovery Cyclones.
- E. The owner or operator shall maintain a record of the completion date that EP43.1 was raised from 96 feet to 140 feet above ground.

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**16. Continuous Emission Monitoring**

Continuous emission monitoring is not required by this permit at this time.

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**17. Permit History**

Permit No.	Project No.	Description	Date	Stack Testing
75-A-087	75-087	Add Venturi and Packed Bed Scrubbers to Existing Dryers.	05/06/75	Yes

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## 18. Description of Terms and Acronyms

*The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.*

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
CO <sub>2</sub> e	Carbon dioxide equivalent which is the aggregate emissions of greenhouse gas (GHG) emissions based on global warming potentials
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
GHG	Greenhouse Gas which is defined as being the group of carbon dioxide (CO <sub>2</sub> ), methane (CH <sub>4</sub> ), nitrous oxide (N <sub>2</sub> O), hydrofluorocarbons (HFC), perfluorocarbons (PFC) and sulfur hexafluoride (SF <sub>6</sub> )
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
PM <sub>2.5</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM <sub>10</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm <sub>v</sub>	parts per million by volume
ppm <sub>w</sub>	parts per million by weight
RACT	Reasonably Available Control Technology
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

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**END OF PERMIT**

# Iowa Department of Natural Resources

## Air Quality Construction Permit

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### Permit Holder

**Firm:** Grain Processing Corporation

**Contact:**

Mick Durham  
Director of Environmental Services  
  
(563) 264-4569

**Responsible Party:**

Ron Zitzow  
Senior Vice President

1600 Oregon Street  
Muscatine, IA 52761

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### Permitted Equipment

**Emission Unit(s):** Maltrin #1 Spray Dryer (EU3101.0)  
Maltrin #1 Spray Dryer Direct-Fired Burner (EU3101.1)  
Maximum Dryer Feed Rate: 1.50 tons of maltrin per hour, dry solids basis  
Maximum Natural Gas Firing Rate: 6 MMBtu/hr

**Control Equipment:** Impingement Scrubber (CE3101-1)

**Emission Point:** EP66.0

**Equipment Location:** 1600 Oregon Street  
Muscatine, IA 52761

**Plant Number:** 70-01-004

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Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Project No.	Description	Date	Stack Testing
72-A-199-S2	15-050	Increase Stack Height, Decrease PM <sub>10</sub> Emission Limit, Add PM <sub>2.5</sub> and SO <sub>2</sub> Emission Limits	12/10/15	Yes



Under the Direction of the Director of  
the Department of Natural Resources

## PERMIT CONDITIONS

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### 1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

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### 2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) "*Maintenance and Repair*".

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### 3. Transferability

As limited by 567 IAC 22.3(3)"f", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment<sup>1</sup> (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

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<sup>1</sup> A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

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### 4. Construction

#### A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

#### 4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:

- (1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
- (2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
- (3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

##### B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:

- (1) Any changes are made to the final plans and specifications submitted for the proposed project; or
- (2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

##### C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:

- (1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
- (2) This current amendment becomes void.

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#### 5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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#### 6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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## 7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to \$10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

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## 8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:

- (1) Per 567 IAC 22.3(3)"b":
  - (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
  - (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
- (2) Per 567 IAC 22.3(3)"f", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
  - (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
  - (b) at least seven (7) days before equipment relocation.
- (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324

and include the following information:

- The date of ownership change,
  - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
  - The construction permit number(s) of the equipment changing ownership.
- (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
- the time,
  - the place,
  - the name of the person who will conduct the tests,
  - and other information as required by the Department;

If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:

- (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
- (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
- (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
- (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.
- (5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;

**8. Notification, Reporting, and Recordkeeping (Continued)**

C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)

D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9549  
Fax: (515) 725-9501

E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9545  
Fax: (515) 725-9502

F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	DNR Field Office 6 1023 West Madison Washington, IA 52353 Telephone: (319) 653-2135 Fax: (319) 653-2856
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**9. Appeal Rights**

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

Director Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319
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## 10. Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr <sup>1</sup>	tons/yr <sup>2</sup>	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	2.34 <sup>3</sup>	NA	0.1 gr/dscf	23.4(7)
PM <sub>10</sub>	2.34 <sup>3,4</sup>	NA	NA	NAAQS
PM <sub>2.5</sub>	0.872 <sup>5</sup>	NA	NA	NAAQS
Opacity	NA	NA	40% <sup>6,7</sup>	23.3(2)"d"
Sulfur Dioxide (SO <sub>2</sub> )	0.006 <sup>8</sup>	NA	500 ppm <sub>v</sub>	RACT, 23.3(3)"e"
Nitrogen Oxides (NO <sub>x</sub> )	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	NA	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

1. The emission limit is expressed as the average of three (3) runs.
2. The emission limit is a twelve (12) month rolling total.
3. Requested emission limits maintain project 03-500 below PSD significance rates.
4. The limit for PM<sub>10</sub> emissions is established to correspond to the emission rate used in the dispersion modeling required by the consent decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV016788, Iowa District Court in and for Muscatine County (July 17, 2006)].
5. The limit for PM<sub>2.5</sub> emissions is established to address the "Finding of Substantial Inadequacy of Implementation Plan; Call for Iowa SIP Revision" for PM<sub>2.5</sub> published in the Federal Register (76 FR 9706) on February 22, 2011.
6. The emission limit is a six (6) minute average.
7. An exceedance of the indicator opacity of 10% will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).
8. The SO<sub>2</sub> limit is established to address the nonattainment designation for a portion of Muscatine County published in the Federal Register (78 FR 47191) on August 5, 2013. The nonattainment designation is for the 1-hour SO<sub>2</sub> primary national ambient air quality standard promulgated by EPA in 2010 (75 FR 35519, June 22, 2010).

## 11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	144 Feet
Discharge Style	Vertical Unobstructed
Stack Opening (inches, diameter)	36 inches
Exhaust Temperature (°F)	126 °F
Exhaust Flowrate (scfm)	17,650 scfm

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.



**12. Compliance Demonstration(s)**

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	Performance Testing	NA
PM – State	Yes	Performance Testing	Once Every 3 Calendar Years <sup>1</sup>
PM <sub>10</sub>	Yes <sup>2</sup>	Performance Testing	Once Every 3 Calendar Years <sup>1</sup>
PM <sub>2.5</sub>	Yes <sup>3</sup>	Performance Testing	Once Every 3 Calendar Years <sup>1</sup>
Opacity	Yes	Performance Testing	Once Every 3 Calendar Years <sup>1</sup>
SO <sub>2</sub>	No	Performance Testing	NA
NO <sub>x</sub>	No	Performance Testing	NA
VOC	No	Performance Testing	NA
CO	No	Performance Testing	NA
Pb	No	Performance Testing	NA
HAP	No	Performance Testing	NA

<sup>1</sup> After the initial performance test, performance testing for PM, PM<sub>10</sub>, PM<sub>2.5</sub> and opacity shall be conducted once every 3 calendar years. After completion of three consecutive performance tests that demonstrate compliance with the PM, PM<sub>10</sub>, and PM<sub>2.5</sub> emission limits in condition 10, the owner or operator may request to modify the performance testing frequency for PM, PM<sub>10</sub>, PM<sub>2.5</sub> and opacity.

<sup>2</sup> It is acceptable to test for PM and to assume that all PM emissions are PM<sub>10</sub> emissions.

<sup>3</sup> If performance testing using methods specified in 40 CFR Part 51, Appendix M, 201A with 202 are not performed due to high moisture content (stack saturation), the owner or operator shall demonstrate compliance with the PM<sub>2.5</sub> limit as specified in Condition 10 by using methods specified in 40 CFR Part 60, Appendix A, Method 5 and 40 CFR Part 51, Appendix M, Method 202. Using Method 5, the filterable PM<sub>2.5</sub> fraction shall be determined by conducting internal particle sizing of the dried maltodextrin product (immediately following the dryer) to determine the PM<sub>2.5</sub> fraction of the measured total filterable particulate. The entire condensable fraction, measured by using Method 202, shall be considered PM<sub>2.5</sub>.

**If an initial compliance demonstration specified above is testing**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 within one hundred and twenty (120) days after the issuance date of the permit.

**If subsequent testing is specified above**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner’s authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM <sub>10</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
PM <sub>2.5</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO <sub>2</sub>	1 hour	40 CFR 60, Appendix A, Method 6C
NO <sub>x</sub>	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18 or 40 CFR 63, Appendix A, Method 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

## **12. Compliance Demonstration(s) (Continued)**

Per 567 IAC 25.1(7)"a", at the Department's request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

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## **13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability**

This emission unit is not subject to any New Source Performance Standard or National Emission Standards for Hazardous Air Pollutants (NESHAP) at this time. There are no applicable subparts.

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## **14. Operating Limits**

Operating limits for this emission unit shall be:

- A. The total flowrate of the Impingement scrubber's (CE3101-1) liquor shall be maintained at or above 175 gallons per minute.
  - B. The differential pressure drop across the Impingement scrubber (CE3101-1) shall be maintained between 0.1 and 6 inches of water column.
  - C. The owner or operator shall properly operate and maintain equipment to monitor the total liquor flow rate and the differential pressure drop across the Impingement scrubber (CE3101-1). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
  - D. The owner or operator shall develop an operating and maintenance plan for the scrubber, including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
  - E. The owner or operator shall increase the stack height of EP66.0 from 124 feet to 144 feet above ground by September 1, 2016.
-

### 15. Operating Condition Monitoring and Recordkeeping

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. The owner or operator shall collect and record the total liquor flow rate to the Impingement scrubber (CE3101-1), in gallons per minute, at least once per day. If the liquor flow rate to the Impingement scrubber (CE3101-1) falls below the value specified in Condition 14 A., the owner or operator shall investigate the Impingement scrubber (CE3101-1) and make corrections to it. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the Impingement scrubber (CE3101-1) is not in operation.
- B. The owner or operator shall collect and record the pressure drop across the Impingement scrubber (CE3101-1), in inches of water, at least once per day. If the pressure drop across the Impingement scrubber (CE3101-1) falls outside the range specified in Condition 14 B., the owner or operator shall investigate the Impingement scrubber (CE3101-1) and make corrections to it. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the Impingement scrubber (CE3101-1) is not in operation.
- C. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the control equipment and the monitoring devices.
- D. The owner or operator shall maintain a record of the completion date that EP66.0 was raised from 124 feet to 144 feet above ground.

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### 16. Continuous Emission Monitoring

Continuous emission monitoring is not required by this permit at this time.

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### 17. Permit History

Permit No.	Project No.	Description	Date	Stack Testing
72-A-199	72-201	Original Permit	12/14/72	No
72-A-199-S1	03-500	Modify Airflow and Emission Limits.	01/06/04	Yes

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## 18. Description of Terms and Acronyms

*The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.*

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
PM <sub>2.5</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM <sub>10</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm <sub>v</sub>	parts per million by volume
ppm <sub>w</sub>	parts per million by weight
RACT	Reasonably Available Control Technology
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

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**END OF PERMIT**

# Iowa Department of Natural Resources

## Air Quality Construction Permit

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### Permit Holder

**Firm:** Grain Processing Corporation

**Contact:**

Mick Durham  
Director of Environmental Services

563.264.4569

1600 Oregon Street  
Muscatine, IA 52761

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**Responsible Party:**

Ron Zitzow  
Senior Vice President

### Permitted Equipment

**Emission Unit(s):** #2 Wet Germ Cyclone to #3 South Top Rotary Germ Drier (EU2803.0)  
Maximum nameplate capacity of 9.0 tons per hour, dry germ  
Maximum process design capacity of 6.65 tons per hour, dry germ

**Control Equipment:** Cyclone (CE2803-1)

**Emission Point:** EP96.0

**Equipment Location:** 1600 Oregon Street  
Muscatine, IA 52761

**Plant Number:** 70-01-004

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Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Project No.	Description	Date	Stack Testing
74-A-014-S1	15-050	Add PM <sub>10</sub> , PM <sub>2.5</sub> and SO <sub>2</sub> Emission Limits	12/10/15	Yes



Under the Direction of the Director of  
the Department of Natural Resources

## PERMIT CONDITIONS

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### 1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

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### 2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) "*Maintenance and Repair*".

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### 3. Transferability

As limited by 567 IAC 22.3(3)"f", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment<sup>1</sup> (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

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<sup>1</sup> A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

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### 4. Construction

#### A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

#### 4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:

- (1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
- (2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
- (3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

##### B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:

- (1) Any changes are made to the final plans and specifications submitted for the proposed project; or
- (2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

##### C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:

- (1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
- (2) This current amendment becomes void.

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#### 5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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#### 6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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## 7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to \$10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

## 8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:

- (1) Per 567 IAC 22.3(3)"b":
  - (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
  - (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
- (2) Per 567 IAC 22.3(3)"f", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
  - (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
  - (b) at least seven (7) days before equipment relocation.
- (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324

and include the following information:

- The date of ownership change,
  - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
  - The construction permit number(s) of the equipment changing ownership.
- (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
- the time,
  - the place,
  - the name of the person who will conduct the tests,
  - and other information as required by the Department;

If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:

- (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
- (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
- (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
- (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.



**8. Notification, Reporting, and Recordkeeping (Continued)**

- (5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;
- C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)
- D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9549  
Fax: (515) 725-9501

- E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9545  
Fax: (515) 725-9502

- F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	DNR Field Office 6 1023 West Madison Washington, IA 52353 Telephone: (319) 653-2135 Fax: (319) 653-2856
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**9. Appeal Rights**

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

Director Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319
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## 10. Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr <sup>1</sup>	tons/yr <sup>2</sup>	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	0.044 <sup>3</sup>	NA	0.1 gr/dscf	23.4(7), requested limit
PM <sub>10</sub>	0.044 <sup>4</sup>	NA	NA	NAAQS
PM <sub>2.5</sub>	0.013 <sup>5</sup>	NA	NA	NAAQS
Opacity	NA	NA	40% <sup>6,7</sup>	23.3(2)"d"
Sulfur Dioxide (SO <sub>2</sub> )	0.20 <sup>8</sup>	NA	500 ppm <sub>v</sub>	23.3(3)"e"
Nitrogen Oxides (NO <sub>x</sub> )	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	NA	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

1. The emission limit is expressed as the average of three (3) runs.
2. The emission limit is a twelve (12) month rolling total.
3. Limit requested by GPC to restrict potential emissions.
4. The limit for PM<sub>10</sub> emissions is established to correspond to the emission rate used in the dispersion modeling required by the consent decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV016788, Iowa District Court in and for Muscatine County (July 17, 2006)].
5. The limit for PM<sub>2.5</sub> emissions is established to address the "Finding of Substantial Inadequacy of Implementation Plan; Call for Iowa SIP Revision" for PM<sub>2.5</sub> published in the Federal Register (76 FR 9706) on February 22, 2011.
6. The emission limit is a six (6) minute average.
7. An exceedance of the indicator opacity of 10% will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).
8. The SO<sub>2</sub> limit is established to address the nonattainment designation for a portion of Muscatine County published in the Federal Register (78 FR 47191) on August 5, 2013. The nonattainment designation is for the 1-hour SO<sub>2</sub> primary national ambient air quality standard promulgated by EPA in 2010 (75 FR 35519, June 22, 2010).

## 11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	53 Feet
Discharge Style	Vertical Unobstructed
Stack Opening (inches, diameter)	10.75 inches
Exhaust Temperature (°F)	120 °F
Exhaust Flowrate (scfm)	514 scfm

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**12. Compliance Demonstration(s)**

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	NA	NA
PM – State	Yes	Performance Testing	One Time
PM <sub>10</sub>	Yes <sup>1</sup>	Performance Testing	One Time
PM <sub>2.5</sub>	Yes <sup>2</sup>	Performance Testing	One Time
Opacity	Yes	Performance Testing	One Time
SO <sub>2</sub>	Yes	Performance Testing	One Time
NO <sub>x</sub>	No	NA	NA
VOC	No	NA	NA
CO	No	NA	NA
Pb	No	NA	NA
HAP	No	NA	NA

<sup>1</sup> It is acceptable to test for PM and to assume that all PM emissions are PM<sub>10</sub> emissions.

<sup>2</sup> If method 40 CFR 51, Appendix M, 201A cannot be performed due to stack blockage, then the owner operator shall add a temporary stack extension to perform method 40 CFR 51, Appendix M, 201A. The temporary stack extension shall conform to 40 CFR Part 60, Appendix A, Method 1.

**If an initial compliance demonstration specified above is testing**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 within 6-months after the issuance date of the permit.

**If subsequent testing is specified above**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner’s authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM <sub>10</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
PM <sub>2.5</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO <sub>2</sub>	1 hour	40 CFR 60, Appendix A, Method 6C
NO <sub>x</sub>	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18 or 40 CFR 63, Appendix A, Method 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

**12. Compliance Demonstration(s) (Continued)**

Per 567 IAC 25.1(7)"a", at the Department's request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

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**13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability**

This emission unit is not subject to any New Source Performance Standard or National Emission Standards for Hazardous Air Pollutants (NESHAP) at this time. There are no applicable subparts.

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**14. Operating Limits**

Operating limits for this emission unit shall be:

- A. The owner or operator shall develop an operating and maintenance plan for the cyclone (CE2803-1), including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.

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**15. Operating Condition Monitoring and Recordkeeping**

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the cyclone (CE2803-1).

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**16. Continuous Emission Monitoring**

Continuous emission monitoring is not required by this permit at this time.

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**17. Permit History**

Permit No.	Project No.	Description	Date	Stack Testing
74-A-014	74-017	Original Permit.	01/16/74	No

## 18. Description of Terms and Acronyms

*The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.*

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
PM <sub>2.5</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM <sub>10</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm <sub>v</sub>	parts per million by volume
ppm <sub>w</sub>	parts per million by weight
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

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**END OF PERMIT**

# Iowa Department of Natural Resources

## Air Quality Construction Permit

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### Permit Holder

**Firm:** Grain Processing Corporation

**Contact:**

Mick Durham  
Director of Environmental Services

563.264.4569

1600 Oregon Street  
Muscatine, IA 52761

**Responsible Party:**

Ron Zitzow  
Senior Vice President

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### Permitted Equipment

**Emission Unit(s):** #3 South Top Rotary Germ Drier (EU 2804.0)  
Maximum capacity of 9.0 tons per hour, dry germ  
Process design capacity of 6.65 tons per hour, dry germ

**Control Equipment:** Cyclone (CE2804-1)  
Packed Bed Scrubber (CE2804-2)

**Emission Point:** EP97.0

**Equipment Location:** 1600 Oregon Street  
Muscatine, IA 52761

**Plant Number:** 70-01-004

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Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Project No.	Description	Date	Stack Testing
74-A-015-S2	15-050	Add PM <sub>10</sub> and PM <sub>2.5</sub> Emission Limits; Modify SO <sub>2</sub> Emission Limit; Add Scrubber; Re-identify EU	12/10/15	Yes



Under the Direction of the Director of  
the Department of Natural Resources

## PERMIT CONDITIONS

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### 1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

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### 2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) "*Maintenance and Repair*".

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### 3. Transferability

As limited by 567 IAC 22.3(3)"P", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment<sup>1</sup> (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

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<sup>1</sup> A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

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### 4. Construction

#### A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

#### 4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:

- (1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
- (2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
- (3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

#### B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:

- (1) Any changes are made to the final plans and specifications submitted for the proposed project; or
- (2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

#### C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:

- (1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
- (2) This current amendment becomes void.

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#### 5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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#### 6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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## 7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to \$10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

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## 8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:

- (1) Per 567 IAC 22.3(3)"b":
  - (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
  - (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
- (2) Per 567 IAC 22.3(3)"f", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
  - (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
  - (b) at least seven (7) days before equipment relocation.
- (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324

and include the following information:

- The date of ownership change,
  - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
  - The construction permit number(s) of the equipment changing ownership.
- (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
- the time,
  - the place,
  - the name of the person who will conduct the tests,
  - and other information as required by the Department;

If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:

- (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
- (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
- (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
- (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.

**8. Notification, Reporting, and Recordkeeping (Continued)**

- (5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;
- C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)
- D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9549  
Fax: (515) 725-9501

- E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9545  
Fax: (515) 725-9502

- F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9550  
Fax: (515) 725-9502

DNR Field Office 6  
1023 West Madison  
Washington, IA 52353  
Telephone: (319) 653-2135  
Fax: (319) 653-2856

**9. Appeal Rights**

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

Director  
Iowa Department of Natural Resources  
502 East 9<sup>th</sup> Street  
Des Moines, IA 50319

Bureau Chief  
Legal Services Bureau  
Iowa Department of Natural Resources  
502 East 9<sup>th</sup> Street  
Des Moines, IA 50319

## 10. Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr <sup>1</sup>	tons/yr <sup>2</sup>	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	0.47 <sup>3</sup>	NA	0.1 gr/dscf	23.4(7)
PM <sub>10</sub>	0.47 <sup>4</sup>	NA	NA	NAAQS
PM <sub>2.5</sub>	0.134 <sup>5</sup>	NA	NA	NAAQS
Opacity	NA	NA	40% <sup>6,7</sup>	23.3(2) <sup>d</sup>
Sulfur Dioxide (SO <sub>2</sub> )	0.90 <sup>8</sup>	NA	500 ppm <sub>v</sub>	RACT, 23.3(3) <sup>e</sup>
Nitrogen Oxides (NO <sub>x</sub> )	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	NA	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

1. The emission limit is expressed as the average of three (3) runs.
2. The emission limit is a twelve (12) month rolling total.
3. The PM limit maintains Projects 79-222 and 79-265 as minor for purposes of LAER.
4. The limit for PM<sub>10</sub> emissions is established to correspond to the emission rate used in the dispersion modeling required by the consent decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV016788, Iowa District Court in and for Muscatine County (July 17, 2006)].
5. The limit for PM<sub>2.5</sub> emissions is established to address the “Finding of Substantial Inadequacy of Implementation Plan; Call for Iowa SIP Revision” for PM<sub>2.5</sub> published in the Federal Register (76 FR 9706) on February 22, 2011.
6. The emission limit is a six (6) minute average.
7. An exceedance of the indicator opacity of no visible emissions will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).
8. The SO<sub>2</sub> limit is established to address the nonattainment designation for a portion of Muscatine County published in the Federal Register (78 FR 47191) on August 5, 2013. The nonattainment designation is for the 1-hour SO<sub>2</sub> primary national ambient air quality standard promulgated by EPA in 2010 (75 FR 35519, June 22, 2010).

## 11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	84 Feet
Discharge Style	Vertical Unobstructed
Stack Opening (inches, diameter)	18 inches
Exhaust Temperature (°F)	212 °F
Exhaust Flowrate (scfm)	5,562 scfm

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**12. Compliance Demonstration(s)**

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	Performance Testing	NA
PM – State	Yes	Performance Testing	Once Every 3 Calendar Years <sup>1</sup>
PM <sub>10</sub>	Yes <sup>2</sup>	Performance Testing	Once Every 3 Calendar Years <sup>1</sup>
PM <sub>2.5</sub>	Yes <sup>3</sup>	Performance Testing	Once Every 3 Calendar Years <sup>1</sup>
Opacity	Yes	Performance Testing	Once Every 3 Calendar Years <sup>1</sup>
SO <sub>2</sub>	Yes	Performance Testing	Once Every 3 Calendar Years <sup>1</sup>
NO <sub>x</sub>	No	Performance Testing	NA
VOC	No	Performance Testing	NA
CO	No	Performance Testing	NA
Pb	No	Performance Testing	NA
HAP	No	Performance Testing	NA

<sup>1</sup> After the initial performance test, performance testing for PM, PM<sub>10</sub>, PM<sub>2.5</sub>, opacity, and SO<sub>2</sub> shall be conducted once every 3 calendar years. After completion of three consecutive performance tests that demonstrate compliance with the PM, PM<sub>10</sub>, PM<sub>2.5</sub>, opacity, and SO<sub>2</sub> emission limits in Condition 10, the owner or operator may request to modify the performance testing frequency for PM, PM<sub>10</sub>, PM<sub>2.5</sub>, opacity, and SO<sub>2</sub>.

<sup>2</sup> It is acceptable to test for PM and to assume that all PM emissions are PM<sub>10</sub> emissions.

<sup>3</sup> If performance testing using methods specified in 40 CFR Part 51, Appendix M, 201A with 202 are not performed due to the presence of water droplets (stack saturation), the owner or operator shall demonstrate compliance with the PM<sub>2.5</sub> limit as specified in Condition 10 by using methods specified in 40 CFR Part 60, Appendix A, Method 5 and 40 CFR Part 51, Appendix M, Method 202. Using Method 5, the filterable PM<sub>2.5</sub> fraction shall be determined by conducting internal particle sizing of the dried germ product (immediately following the dryer) to determine the PM<sub>2.5</sub> fraction of the measured total filterable particulate. The entire condensable fraction, measured by using Method 202, shall be considered PM<sub>2.5</sub>.

**If an initial compliance demonstration specified above is testing**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 no later than one hundred and twenty days (120) days after the installation of the Packed Bed scrubber (CE2804-2) is completed.

**If subsequent testing is specified above**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner’s authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM <sub>10</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
PM <sub>2.5</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO <sub>2</sub>	1 hour	40 CFR 60, Appendix A, Method 6C
NO <sub>x</sub>	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18 or 40 CFR 63, Appendix A, Method 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

## **12. Compliance Demonstration(s) (Continued)**

Per 567 IAC 25.1(7)"a", at the Department's request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

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## **13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability**

These emission units are not subject to any New Source Performance Standard or National Emission Standards for Hazardous Air Pollutants (NESHAP) at this time. There are no applicable subparts.

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## **14. Operating Limits**

Operating limits for this emission unit shall be:

- A. The owner or operator shall develop an operating and maintenance plan for the cyclone (CE2804-1), including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routing and long-term maintenance.
- B. By no later than August 30, 2017, the owner or operator shall install the Packed Bed Scrubber (CE2804-2) to control SO<sub>2</sub> emissions from Germ Drier #3.
- C. No later than 60 days prior to initiating modification of Germ Drier #3 (EU2804.0) by installing the Packed Bed Scrubber (CE2804-2), the owner or operator shall apply to modify this construction permit. In the application, the owner or operator shall include, at a minimum, the following information to the Department: the manufacturer and model number of the scrubber, the total liquor flow rate to the scrubber, the recycled liquor flow rate to the scrubber, the pH of the liquor used in the scrubber, the reagents used in the liquor of the scrubber, the pressure drop range across the scrubber, the pollutants controlled and an estimate of the scrubber's control efficiency for the different air pollutants.

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## **15. Operating Condition Monitoring and Recordkeeping**

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the cyclone (CE2804-1).
- B. The owner or operator shall maintain a record of the completion date for the installation of the Packed Bed Scrubber (CE2804-2).

- C. The owner or operator shall develop for the Packed Bed Scrubber (CE2804-2) a monitoring system that will monitor and record continuously scrubber operating parameters to ensure continuous compliance with the emission limits. Such parameters shall include, but are not limited to, the total liquor flow rate to the scrubber, the pressure drop across the scrubber, and the pH of the scrubber's liquor.

## 16. Continuous Emission Monitoring

Continuous emission monitoring is not required by this permit at this time.

## 17. Permit History

Permit No.	Project No.	Description	Date	Stack Testing
74-A-015	74-018	Original Permit	01/16/74	No
74-A-015-S1	95-266	Add SO <sub>2</sub> Emission Limit	09/18/95	No

## 18. Description of Terms and Acronyms

*The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.*

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
CO <sub>2</sub> e	Carbon dioxide equivalent which is the aggregate emissions of greenhouse gas (GHG) emissions based on global warming potentials
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
GHG	Greenhouse Gas which is defined as being the group of carbon dioxide (CO <sub>2</sub> ), methane (CH <sub>4</sub> ), nitrous oxide (N <sub>2</sub> O), hydrofluorocarbons (HFC), perfluorocarbons (PFC) and sulfur hexafluoride (SF <sub>6</sub> )
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
PM <sub>2.5</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM <sub>10</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM

PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm <sub>v</sub>	parts per million by volume
ppm <sub>w</sub>	parts per million by weight
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

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**END OF PERMIT**

# Iowa Department of Natural Resources

## Air Quality Construction Permit

### Permit Holder

**Firm:** Grain Processing Corporation

**Contact:**

Mick Durham  
Director of Environmental Services

563.264.4569

1600 Oregon Street  
Muscatine, IA 52761

**Responsible Party:**

Ron Zitzow  
Senior Vice President

1600 Oregon Street  
Muscatine, IA 52761

### Permitted Equipment

**Emission Unit(s):** Dryer House Warehouse #1 Crown Feed Cooler (EU 1234.0)  
Maximum capacity of 25 tons per hour of dry feed

**Control Equipment:** Pulse Jet Baghouse (CE1234-2)

**Emission Point:** EP119.0

**Equipment Location:** 1600 Oregon Street  
Muscatine, IA 52761

**Plant Number:** 70-01-004

Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Project No.	Description	Date	Stack Testing
75-A-353-S2	15-051	Stack Height Increase, Establish PM <sub>2.5</sub> & SO <sub>2</sub> limit	07/06/15	Yes



Under the Direction of the Director of  
the Department of Natural Resources



## PERMIT CONDITIONS

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### 1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

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No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

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### 2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) "*Maintenance and Repair*".

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### 3. Transferability

As limited by 567 IAC 22.3(3)"F", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment<sup>1</sup> (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

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<sup>1</sup> A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

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### 4. Construction

#### A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

#### 4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are

specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:

- (1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
- (2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
- (3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

#### B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:

- (1) Any changes are made to the final plans and specifications submitted for the proposed project; or
- (2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

#### C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:

- (1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
- (2) This current amendment becomes void.

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### 5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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### 6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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### 7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to \$10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

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## 8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:

- (1) Per 567 IAC 22.3(3)"b":
  - (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
  - (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
- (2) Per 567 IAC 22.3(3)"f", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
  - (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
  - (b) at least seven (7) days before equipment relocation.
- (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324

and include the following information:

- The date of ownership change,
  - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
  - The construction permit number(s) of the equipment changing ownership.
- (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
- the time,
  - the place,
  - the name of the person who will conduct the tests,
  - and other information as required by the Department;

If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:

- (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
- (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
- (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
- (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.

**8. Notification, Reporting, and Recordkeeping (Continued)**

(5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;

C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)

D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9549  
Fax: (515) 725-9501

E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9545  
Fax: (515) 725-9502

F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	DNR Field Office 6 1023 West Madison Washington, IA 52353 Telephone: (319) 653-2135 Fax: (319) 653-2856
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**9. Appeal Rights**

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

Director Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319
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### 10. Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr <sup>1</sup>	tons/yr <sup>2</sup>	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	0.42 <sup>3</sup>	NA	0.1 gr/dscf	23.4(7)
PM <sub>10</sub>	0.42 <sup>4</sup>	NA	NA	NAAQS
PM <sub>2.5</sub>	0.10 <sup>5</sup>	NA	NA	NAAQS
Opacity	NA	NA	40% <sup>6,7</sup>	23.3(2)"d"
Sulfur Dioxide (SO <sub>2</sub> )	0.20 <sup>8</sup>	NA	500 ppm <sub>v</sub>	RACT, 23.3(3)"e"
Nitrogen Oxides (NO <sub>x</sub> )	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	NA	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

- The emission limit is expressed as the average of three (3) runs.
- The emission limit is a twelve (12) month rolling total.
- Requested by facility to restrict potential emissions of PM.
- The limit for PM<sub>10</sub> emissions is established to correspond to the emission rate used in the dispersion modeling required by the consent decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV016788, Iowa District Court in and for Muscatine County (July 17, 2006)].
- The limit for PM<sub>2.5</sub> emissions is established to address the "Finding of Substantial Inadequacy of Implementation Plan; Call for Iowa SIP Revision" for PM<sub>2.5</sub> published in the Federal Register (76 FR 9706) on February 22, 2011.
- The emission limit is a six (6) minute average.
- An exceedance of the indicator opacity of "No Visible Emissions" will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).
- The SO<sub>2</sub> limit is established to address the nonattainment designation for a portion of Muscatine County published in the Federal Register (78 FR 47191) on August 5, 2013. The nonattainment designation is for the 1-hour SO<sub>2</sub> primary national ambient air quality standard promulgated by EPA in 2010 (75 FR 35519, June 22, 2010).

### 11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	80.0 Feet
Discharge Style	Vertical Unobstructed Discharge
Stack Opening (inches, diameter)	24 inches Diameter
Exhaust Temperature (°F)	89 °F
Exhaust Flowrate (scfm)	9860 scfm

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**12. Compliance Demonstration(s)**

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	Performance Testing	NA
PM – State	Yes <sup>(1)</sup>	Performance Testing	One Time
PM <sub>10</sub>	Yes <sup>(1)</sup>	Performance Testing	One Time
PM <sub>2.5</sub>	Yes <sup>(1)</sup>	Performance Testing	One Time
Opacity	Yes <sup>(1)</sup>	Performance Testing	One Time
SO <sub>2</sub>	Yes <sup>(1)</sup>	Performance Testing	One Time
NO <sub>x</sub>	No	NA	NA
VOC	No	NA	NA
CO	No	NA	NA
Pb	No	NA	NA
HAP	No	NA	NA

(1) Performance testing results conducted on DHWSE #2 Crown Feed Cooler (EP167.0) for PM, PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and visible observation shall be used to demonstrate compliance with emission limits specified in condition 10 of this permit. If performance testing results conducted on EP167.0 demonstrate compliance with emission limits specified in condition 10 of this permit no further testing of EP119.0 is required at this time.

**If an initial compliance demonstration specified above is testing**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 within 90 days after permit issuance.

**If subsequent testing is specified above**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner’s authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM <sub>10</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
PM <sub>2.5</sub>	2 hours	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO <sub>2</sub>	1 hour	40 CFR 60, Appendix A, Method 6C
NO <sub>x</sub>	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18 or 40 CFR 63, Appendix A, Method 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
CO <sub>2</sub>	1 hour	40 CFR 60, Appendix A, Method 3
CH <sub>4</sub>	1 hour	40 CFR 60, Appendix A, Method 18
N <sub>2</sub> O	1 hour	40 CFR 60, Appendix A, Method 320
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

## **12. Compliance Demonstration(s) (continued)**

Per 567 IAC 25.1(7)"a", at the Department's request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

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## **13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability**

This emission unit is not subject to any New Source Performance Standard or National Emission Standards for Hazardous Air Pollutants (NESHAP) at this time. There are no applicable subparts at this time.

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## **14. Operating Limits**

Operating limits for this emission unit shall be:

- A. The differential pressure drop across Baghouse (CE1234-2) shall be maintained between 0.3 and 6 inches water column while the equipment is in operation.
  - B. The owner or operator shall properly operate and maintain equipment to monitor the differential pressure drop across the Baghouse (CE1234-2). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
  - C. The owner or operator shall develop an operating and maintenance plan for the Baghouse (CE1234-2) including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
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### 15. Operating Condition Monitoring and Recordkeeping

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. The owner or operator shall collect and record the pressure drop across the Baghouse (CE1234-2), in inches of water, on a continuous basis. If the pressure drop across Baghouse (CE1234-2) falls outside the range specified in Condition 14a, the owner or operator shall investigate Baghouse (CE1234-2) and make corrections to Baghouse (CE2436-3). The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that Baghouse (CE1234-2) is not in operation.
- B. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Baghouse (CE1234-2).

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### 16. Continuous Emission Monitoring

Continuous emission monitoring is not required by this permit at this time.

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### 17. Permit History

Permit No.	Project No.	Description	Date	Stack Testing
75-A-353	75-423	Original Permit	12/04/75	Yes
75-A-353-S1	09-281	Replace Cyclone with Baghouse and Add PM/PM10 Emission Limits	07/16/09	No

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## 18. Description of Terms and Acronyms

*The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.*

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
PM <sub>2.5</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM <sub>10</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm <sub>v</sub>	parts per million by volume
ppm <sub>w</sub>	parts per million by weight
RACT	Reasonable Available Control Technology
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

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**END OF PERMIT**

# Iowa Department of Natural Resources

## Air Quality Construction Permit

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### Permit Holder

**Firm:** Grain Processing Corporation

**Contact:**

Mick Durham  
Director of Environmental Services  
563.264.4569

**Responsible Party:**

Ron Zitzow  
Senior Vice President

1600 Oregon Street  
Muscatine, IA 52761

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### Permitted Equipment

**Emission Unit(s):** #4 South Bottom Rotary Germ Drier (EU2807.0)  
Maximum capacity of 13.3 tons per hour of dry germ

**Control Equipment:** Cyclone (CE2807-1)  
Packed Bed Scrubber (CE2807-2)

**Emission Point:** EP126.0

**Equipment Location:** 1600 Oregon Street  
Muscatine, IA 52761

**Plant Number:** 70-01-004

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Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Project No.	Description	Date	Stack Testing
79-A-195-S2	15-050	Add PM <sub>10</sub> and PM <sub>2.5</sub> Emission Limits; Add Wet Scrubber; Modify SO <sub>2</sub> limit; Re-identify EU	12/10/15	Yes



Under the Direction of the Director of  
the Department of Natural Resources

## PERMIT CONDITIONS

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### 1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

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### 2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) "*Maintenance and Repair*".

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### 3. Transferability

As limited by 567 IAC 22.3(3)"P", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment<sup>1</sup> (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

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<sup>1</sup> A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

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### 4. Construction

#### A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

#### 4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:

- (1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
- (2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
- (3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

##### B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:

- (1) Any changes are made to the final plans and specifications submitted for the proposed project; or
- (2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

##### C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:

- (1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
- (2) This current amendment becomes void.

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#### 5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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#### 6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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## 7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to \$10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

## 8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:

- (1) Per 567 IAC 22.3(3)"b":
  - (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
  - (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
- (2) Per 567 IAC 22.3(3)"f", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
  - (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
  - (b) at least seven (7) days before equipment relocation.
- (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324

and include the following information:

- The date of ownership change,
  - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
  - The construction permit number(s) of the equipment changing ownership.
- (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
- the time,
  - the place,
  - the name of the person who will conduct the tests,
  - and other information as required by the Department;

If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:

- (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
- (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
- (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
- (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.

**8. Notification, Reporting, and Recordkeeping (Continued)**

- (5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;
- C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)
- D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9549  
Fax: (515) 725-9501

- E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9545  
Fax: (515) 725-9502

- F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	DNR Field Office 6 1023 West Madison Washington, IA 52353 Telephone: (319) 653-2135 Fax: (319) 653-2856
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**9. Appeal Rights**

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

Director Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319
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## 10. Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr <sup>1</sup>	tons/yr <sup>2</sup>	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	0.42 <sup>3</sup>	NA	0.1 gr/dscf	23.4(7)
PM <sub>10</sub>	0.42 <sup>4</sup>	NA	NA	NAAQS
PM <sub>2.5</sub>	0.120 <sup>5</sup>	NA	NA	NAAQS
Opacity	NA	NA	40% <sup>6,7</sup>	23.3(2)“d”
Sulfur Dioxide (SO <sub>2</sub> )	1.10 <sup>8</sup>	NA	500 ppm <sub>v</sub>	RACT, 23.3(3)“e”
Nitrogen Oxides (NO <sub>x</sub> )	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	NA	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

1. The emission limit is expressed as the average of three (3) runs.
2. The emission limit is a twelve (12) month rolling total.
3. The PM limit maintains Projects 79-222 and 79-265 as minor for purposes of LAER.
4. The limit for PM<sub>10</sub> emissions is established to correspond to the emission rate used in the dispersion modeling required by the consent decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV016788, Iowa District Court in and for Muscatine County (July 17, 2006)].
5. The limit for PM<sub>2.5</sub> emissions is established to address the “Finding of Substantial Inadequacy of Implementation Plan; Call for Iowa SIP Revision” for PM<sub>2.5</sub> published in the Federal Register (76 FR 9706) on February 22, 2011.
6. The emission limit is a six (6) minute average.
7. An exceedance of the indicator opacity of 10% will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).
8. The SO<sub>2</sub> limit is established to address the nonattainment designation for a portion of Muscatine County published in the Federal Register (78 FR 47191) on August 5, 2013. The nonattainment designation is for the 1-hour SO<sub>2</sub> primary national ambient air quality standard promulgated by EPA in 2010 (75 FR 35519, June 22, 2010).

## 11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	75 Feet
Discharge Style	Vertical Unobstructed
Stack Opening (inches, diameter)	18 inches
Exhaust Temperature (°F)	210 °F
Exhaust Flowrate (scfm)	3,480 scfm

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**12. Compliance Demonstration(s)**

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	Performance Testing	NA
PM – State	Yes	Performance Testing	Once Every 3 Calendar Years <sup>1</sup>
PM <sub>10</sub>	Yes <sup>2</sup>	Performance Testing	Once Every 3 Calendar Years <sup>1</sup>
PM <sub>2.5</sub>	Yes <sup>3</sup>	Performance Testing	Once Every 3 Calendar Years <sup>1</sup>
Opacity	Yes	Performance Testing	Once Every 3 Calendar Years <sup>1</sup>
SO <sub>2</sub>	Yes	Performance Testing	Once Every 3 Calendar Years <sup>1</sup>
NO <sub>x</sub>	No	Performance Testing	NA
VOC	No	Performance Testing	NA
CO	No	Performance Testing	NA
Pb	No	Performance Testing	NA
HAP	No	Performance Testing	NA

<sup>1</sup> After the initial performance test, performance testing for PM, PM<sub>10</sub>, PM<sub>2.5</sub>, opacity, and SO<sub>2</sub> shall be conducted once every 3 calendar years. After completion of three consecutive performance tests that demonstrate compliance with the PM, PM<sub>10</sub>, PM<sub>2.5</sub>, opacity, and SO<sub>2</sub> emission limits in Condition 10, the owner or operator may request to modify the performance testing frequency for PM, PM<sub>10</sub>, PM<sub>2.5</sub>, opacity, and SO<sub>2</sub>.

<sup>2</sup> It is acceptable to test for PM and to assume that all PM emissions are PM<sub>10</sub> emissions.

<sup>3</sup> If performance testing using methods specified in 40 CFR Part 51, Appendix M, 201A with 202 are not performed due high moisture content (stack saturation), the owner or operator shall demonstrate compliance with the PM<sub>2.5</sub> limit as specified in Condition 10 by using methods specified in 40 CFR Part 60, Appendix A, Method 5 and 40 CFR Part 51, Appendix M, Method 202. Using Method 5, the filterable PM<sub>2.5</sub> fraction shall be determined by conducting internal particle sizing of the dried germ product (immediately following the dryer) to determine the PM<sub>2.5</sub> fraction of the measured total filterable particulate. The entire condensable fraction, measured by using Method 202, shall be considered PM<sub>2.5</sub>.

**If an initial compliance demonstration specified above is testing**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 no later than one hundred and twenty days (120) days after the installation of the Packed Bed scrubber (CE2807-2) is completed.

**If subsequent testing is specified above**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner’s authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM <sub>10</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
PM <sub>2.5</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO <sub>2</sub>	1 hour	40 CFR 60, Appendix A, Method 6C
NO <sub>x</sub>	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18 or 40 CFR 63, Appendix A, Method 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.



## **12. Compliance Demonstration(s) (Continued)**

Per 567 IAC 25.1(7)"a", at the Department's request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

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## **13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability**

These emission units are not subject to any New Source Performance Standard or National Emission Standards for Hazardous Air Pollutants (NESHAP) at this time. There are no applicable subparts.

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## **14. Operating Limits**

Operating limits for this emission unit shall be:

- A. The owner or operator shall develop an operating and maintenance plan for the cyclone (CE2807-1), including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routing and long-term maintenance.
- B. By no later than August 30, 2017, the owner or operator shall install the Packed Bed Scrubber (CE2807-2) to control SO<sub>2</sub> emissions from Germ Drier #4 (EU2807.0).
- C. No later than 60 days prior to initiating modification of Germ Drier #4 (EU2807.0) by installing the Packed Bed Scrubber (CE2807-2), the owner or operator shall apply to modify this construction permit. In the application, the owner or operator shall include, at a minimum, the following information to the Department: the manufacturer and model number of the scrubber, the total liquor flow rate to the scrubber, the recycled liquor flow rate to the scrubber, the pH of the liquor used in the scrubber, the reagents used in the liquor of the scrubber, the pressure drop range across the scrubber, the pollutants controlled and an estimate of the scrubber's control efficiency for the different air pollutants.

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## **15. Operating Condition Monitoring and Recordkeeping**

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the cyclone (CE2807-1).
- B. The owner or operator shall maintain a record of the completion date for the installation of the Packed Bed Scrubber (CE2807-2).

- C. The owner or operator shall develop for the Packed Bed Scrubber (CE2807-2) a monitoring system that will monitor and record continuously scrubber operating parameters to ensure continuous compliance with the emission limits. Such parameters shall include, but are not limited to, the total liquor flow rate to the scrubber, the pressure drop across the scrubber, and the pH of the scrubber's liquor.

## 16. Continuous Emission Monitoring

Continuous emission monitoring is not required by this permit at this time.

## 17. Permit History

Permit No.	Project No.	Description	Date	Stack Testing
79-A-195	79-222	Original Permit	08/17/79	Yes
79-A-195-S1	95-266	Add SO <sub>2</sub> Emission Limit	09/18/95	No

## 18. Description of Terms and Acronyms

*The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.*

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
PM <sub>2.5</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM <sub>10</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million

ppm <sub>v</sub>	parts per million by volume
ppm <sub>w</sub>	parts per million by weight
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

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**END OF PERMIT**

# Iowa Department of Natural Resources

## Air Quality Construction Permit

### Permit Holder

**Firm:** Grain Processing Corporation

**Contact:**

Mick Durham  
Director of Environmental Services

(563) 264-4569

1600 Oregon Street  
Muscatine, IA 52761

**Responsible Party:**

Ron Zitzow  
Senior Vice President

### Permitted Equipment

**Emission Unit(s):** Maltrin #3 Spray Dryer (EU3111.0)  
Maltrin #3 Spray Dryer Direct-Fired Burner (EU3111.1)  
Maximum Dryer Feed Rate: 3.13 tons of maltrin per hour, dry solids basis  
Maximum Natural Gas Firing Rate: 18 MMBtu/hr

**Control Equipment:** Product Recovery Cyclones, Venturi Scrubber (CE3111-1)

**Emission Point:** EP132.1

**Equipment Location:** 1600 Oregon Street  
Muscatine, IA 52761

**Plant Number:** 70-01-004

Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Project No.	Description	Date	Stack Testing
80-A-149-S5	15-050	Increase Stack Height, Modify Scrubber, Decrease PM <sub>10</sub> Emission Limit and Add PM <sub>2.5</sub> and SO <sub>2</sub> Emission Limits	12/10/15	Yes



Under the Direction of the Director of  
the Department of Natural Resources

## PERMIT CONDITIONS

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### 1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

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### 2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) "*Maintenance and Repair*".

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### 3. Transferability

As limited by 567 IAC 22.3(3)"f", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment<sup>1</sup> (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

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<sup>1</sup> A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

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### 4. Construction

#### A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

#### 4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:

- (1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
- (2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
- (3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

#### B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:

- (1) Any changes are made to the final plans and specifications submitted for the proposed project; or
- (2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

#### C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:

- (1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
- (2) This current amendment becomes void.

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### 5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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### 6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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## 7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to \$10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

## 8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:

- (1) Per 567 IAC 22.3(3)"b":
  - (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
  - (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
- (2) Per 567 IAC 22.3(3)"P", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
  - (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
  - (b) at least seven (7) days before equipment relocation.
- (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324

and include the following information:

- The date of ownership change,
  - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
  - The construction permit number(s) of the equipment changing ownership.
- (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
- the time,
  - the place,
  - the name of the person who will conduct the tests,
  - and other information as required by the Department;

If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:

- (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
- (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
- (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
- (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.

### 8. Notification, Reporting, and Recordkeeping (Continued)

- (5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;
- C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)
- D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9549  
Fax: (515) 725-9501

- E. The owner or operator shall send correspondence concerning stack testing to:

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Telephone: (515) 725-9545  
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- F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	DNR Field Office 6 1023 West Madison Washington, IA 52353 Telephone: (319) 653-2135 Fax: (319) 653-2856
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### 9. Appeal Rights

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

Director Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319
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### 10. Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr <sup>1</sup>	tons/yr <sup>2</sup>	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	2.40 <sup>3</sup>	NA	0.1 gr/dscf	23.4(7)
Particulate Matter (PM) – State	NA	NA	0.030 gr/scf	31.20(1)"d", LAER
PM <sub>10</sub>	2.40 <sup>3,4</sup>	NA	NA	NAAQS
PM <sub>2.5</sub>	0.900 <sup>3,5</sup>	NA	NA	NAAQS
Opacity	NA	NA	40% <sup>6,7</sup>	23.3(2)"d"
Sulfur Dioxide (SO <sub>2</sub> )	0.011 <sup>8,9</sup>	NA	500 ppm <sub>v</sub>	RACT, 23.3(3)"e"
Nitrogen Oxides (NO <sub>x</sub> )	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	NA	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

1. The emission limit is expressed as the average of three (3) runs.
2. The emission limit is a twelve (12) month rolling total.
3. Requested limits restrict potential PM, PM<sub>10</sub> and PM<sub>2.5</sub> below PSD significance levels, and Project 15-050 is minor for the purposes of PSD.
4. The limit for PM<sub>10</sub> emissions is established to correspond to the emission rate used in the dispersion modeling required by the consent decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV016788, Iowa District Court in and for Muscatine County (July 17, 2006)].
5. The limit for PM<sub>2.5</sub> emissions is established to address the "Finding of Substantial Inadequacy of Implementation Plan; Call for Iowa SIP Revision" for PM<sub>2.5</sub> published in the Federal Register (76 FR 9706) on February 22, 2011.
6. The emission limit is a six (6) minute average.
7. An exceedance of the indicator opacity of no visible emissions will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).
8. The SO<sub>2</sub> limit is established to address the nonattainment designation for a portion of Muscatine County published in the Federal Register (78 FR 47191) on August 5, 2013. The nonattainment designation is for the 1-hour SO<sub>2</sub> primary national ambient air quality standard promulgated by EPA in 2010 (75 FR 35519, June 22, 2010).
9. Combined emission limit for EP132.1 and EP132.2.

### 11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	150 Feet
Discharge Style	Vertical Unobstructed
Stack Opening (inches, diameter)	42 inches
Exhaust Temperature (°F)	125 °F
Exhaust Flowrate (scfm)	31,550 scfm

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**12. Compliance Demonstration(s)**

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	Performance Testing	NA
PM – State	Yes	Performance Testing	Once Every 3 Calendar Years <sup>1</sup>
PM <sub>10</sub>	Yes <sup>2</sup>	Performance Testing	Once Every 3 Calendar Years <sup>1</sup>
PM <sub>2.5</sub>	Yes <sup>3</sup>	Performance Testing	Once Every 3 Calendar Years <sup>1</sup>
Opacity	Yes	Performance Testing	Once Every 3 Calendar Years <sup>1</sup>
SO <sub>2</sub>	No	Performance Testing	NA
NO <sub>x</sub>	No	Performance Testing	NA
VOC	No	Performance Testing	NA
CO	No	Performance Testing	NA
Pb	No	Performance Testing	NA
HAP	No	Performance Testing	NA

<sup>1</sup> After the initial performance test, performance testing for PM, PM<sub>10</sub>, PM<sub>2.5</sub> and opacity shall be conducted once every 3 calendar years. After completion of three consecutive performance tests that demonstrate compliance with the PM, PM<sub>10</sub>, and PM<sub>2.5</sub> emission limits in condition 10, the owner or operator may request to modify the performance testing frequency for PM, PM<sub>10</sub>, PM<sub>2.5</sub> and opacity.

<sup>2</sup> It is acceptable to test for PM and to assume that all PM emissions are PM<sub>10</sub> emissions.

<sup>3</sup> If performance testing using methods specified in 40 CFR Part 51, Appendix M, 201A with 202 are not performed due to high moisture content (stack saturation), the owner or operator shall demonstrate compliance with the PM<sub>2.5</sub> limit as specified in Condition 10 by using methods specified in 40 CFR Part 60, Appendix A, Method 5 and 40 CFR Part 51, Appendix M, Method 202. Using Method 5, the filterable PM<sub>2.5</sub> fraction shall be determined by conducting internal particle sizing of the dried maltodextrin product (immediately following the dryer) to determine the PM<sub>2.5</sub> fraction of the measured total filterable particulate. The entire condensable fraction, measured by using Method 202, shall be considered PM<sub>2.5</sub>.

**If an initial compliance demonstration specified above is testing**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 within one hundred and twenty (120) days after the modifications to the Venturi Scrubber (CE3111-1) are completed.

**If subsequent testing is specified above**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner’s authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM <sub>10</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
PM <sub>2.5</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO <sub>2</sub>	1 hour	40 CFR 60, Appendix A, Method 6C
NO <sub>x</sub>	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18 or 40 CFR 63, Appendix A, Method 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

## **12. Compliance Demonstration(s) (Continued)**

Per 567 IAC 25.1(7)"a", at the Department's request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

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## **13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability**

This emission unit is not subject to any New Source Performance Standard or National Emission Standards for Hazardous Air Pollutants (NESHAP) at this time. There are no applicable subparts.

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## **14. Operating Limits**

Operating limits for this emission unit shall be:

- A. The owner or operator shall make improvements to the Venturi scrubber (CE3111-1) by adding packed bed sections and by insulating the stack by September 1, 2016.
  - B. The owner or operator shall increase the stack height of EP132.1 from 126 feet to 150 feet above ground by September 1, 2016.
  - C. No later than 60 days prior to initiating modification of the Venturi Scrubber (CE3111-1), the owner or operator shall apply to modify this construction permit. In the application, the owner or operator shall include, at a minimum, the following information to the Department for the scrubber: the manufacturer and model number of the scrubber, the total liquor flow rate to the scrubber, the recycled liquor flow rate to the scrubber, the pH of the liquor used in the scrubber, the reagents used in the liquor of the scrubber, the pressure drop range across the scrubber, the pollutants controlled and an estimate of the scrubber's control efficiency for the different air pollutants.
  - D. The owner or operator shall develop an operating and maintenance plan for the Product Recovery Cyclones, including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
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### 15. Operating Condition Monitoring and Recordkeeping

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. The owner or operator shall maintain a record of the completion date for the modification to the Venturi Scrubber (CE3111-1) by adding packed bed sections and by insulating the stack.
- B. The owner or operator shall maintain a record of the completion date that EP132.1 was raised from 126 feet to 150 feet above ground.
- C. The owner or operator shall develop for the Venturi Scrubber (CE3111-1) a monitoring system that will monitor and record continuously scrubber operating parameters to ensure continuous compliance with the emission limits. Such parameters shall include, but are not limited to, the total liquor flow rate to the scrubber, and the pressure drop across the scrubber.
- D. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Product Recovery Cyclones.

### 16. Continuous Emission Monitoring

Continuous emission monitoring is not required by this permit at this time.

### 17. Permit History

Permit No.	Project No.	Description	Date	Stack Testing
80-A-149	80-210	Original Permit	09/24/80	Yes
80-A-149-S1	_____	Amended PM LAER Limit based on compliance testing	08/29/83	No
80-A-149-S2	01-467	Increased airflow through the dryer by about 10% (as-built)	10/15/02	Yes
80-A-149-S3	03-072	Amended PM & PM <sub>10</sub> allowables	02/07/02	Yes
80-A-149-S4	03-113	Amended PM <sub>10</sub> allowable	06/24/03	No

## 18. Description of Terms and Acronyms

*The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.*

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
PM <sub>2.5</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM <sub>10</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm <sub>v</sub>	parts per million by volume
ppm <sub>w</sub>	parts per million by weight
RACT	Reasonably Available Control Technology
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

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**END OF PERMIT**

# Iowa Department of Natural Resources

## Air Quality Construction Permit

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### Permit Holder

**Firm:** Grain Processing Corporation

**Contact:**

Mick Durham  
Director of Environmental Services

(563) 264-4569

1600 Oregon Street  
Muscatine, IA 52761

**Responsible Party:**

Ron Zitzow  
Senior Vice President

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### Permitted Equipment

**Emission Unit(s):** Maltrin #3 Spray Dryer (EU3111.0)  
Maltrin #3 Spray Dryer Direct-Fired Burner (EU3111.1)  
Maximum Dryer Feed Rate: 3.13 tons of maltrin per hour, dry solids basis  
Maximum Natural Gas Firing Rate: 18 MMBtu/hr

**Control Equipment:** Product Recovery Cyclones, Venturi Scrubber (CE3111-2)

**Emission Point:** EP132.2

**Equipment Location:** 1600 Oregon Street  
Muscatine, IA 52761

**Plant Number:** 70-01-004

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Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Project No.	Description	Date	Stack Testing
80-A-150-S5	15-050	Increase Stack Height, Modify Scrubber, Decrease PM <sub>10</sub> Emission Limit and Add PM <sub>2.5</sub> and SO <sub>2</sub> Emission Limits.	12/10/15	Yes



Under the Direction of the Director of  
the Department of Natural Resources

## PERMIT CONDITIONS

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### 1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

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### 2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) "*Maintenance and Repair*".

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### 3. Transferability

As limited by 567 IAC 22.3(3)"F", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment<sup>1</sup> (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

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<sup>1</sup> A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

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### 4. Construction

#### A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

#### 4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:

- (1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
- (2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
- (3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

#### B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:

- (1) Any changes are made to the final plans and specifications submitted for the proposed project; or
- (2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

#### C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:

- (1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
- (2) This current amendment becomes void.

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### 5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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### 6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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## 7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to \$10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

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## 8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:

- (1) Per 567 IAC 22.3(3)"b":
  - (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
  - (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
- (2) Per 567 IAC 22.3(3)"f", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
  - (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
  - (b) at least seven (7) days before equipment relocation.
- (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324

and include the following information:

- The date of ownership change,
  - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
  - The construction permit number(s) of the equipment changing ownership.
- (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
- the time,
  - the place,
  - the name of the person who will conduct the tests,
  - and other information as required by the Department;

If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:

- (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
- (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
- (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
- (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.

**8. Notification, Reporting, and Recordkeeping (Continued)**

(5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;

C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)

D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9549  
Fax: (515) 725-9501

E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9545  
Fax: (515) 725-9502

F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	DNR Field Office 6 1023 West Madison Washington, IA 52353 Telephone: (319) 653-2135 Fax: (319) 653-2856
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**9. Appeal Rights**

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

Director Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319
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### 10. Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr <sup>1</sup>	tons/yr <sup>2</sup>	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	2.40 <sup>3</sup>	NA	0.1 gr/dscf	23.4(7)
Particulate Matter (PM) – State	NA	NA	0.030 gr/scf	31.20(1)"d", LAER
PM <sub>10</sub>	2.40 <sup>3,4</sup>	NA	NA	NAAQS
PM <sub>2.5</sub>	0.900 <sup>3,5</sup>	NA	NA	NAAQS
Opacity	NA	NA	40% <sup>6,7</sup>	23.3(2)"d"
Sulfur Dioxide (SO <sub>2</sub> )	0.011 <sup>8,9</sup>	NA	500 ppm <sub>v</sub>	RACT, 23.3(3)"e"
Nitrogen Oxides (NO <sub>x</sub> )	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	NA	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
Carbon Dioxide equivalents (CO <sub>2e</sub> )	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

1. The emission limit is expressed as the average of three (3) runs.
2. The emission limit is a twelve (12) month rolling total.
3. Requested limits restrict potential PM, PM<sub>10</sub> and PM<sub>2.5</sub> below PSD significance levels, and Project 15-050 is minor for the purposes of PSD.
4. The limit for PM<sub>10</sub> emissions is established to correspond to the emission rate used in the dispersion modeling required by the consent decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV016788, Iowa District Court in and for Muscatine County (July 17, 2006)].
5. The limit for PM<sub>2.5</sub> emissions is established to address the "Finding of Substantial Inadequacy of Implementation Plan; Call for Iowa SIP Revision" for PM<sub>2.5</sub> published in the Federal Register (76 FR 9706) on February 22, 2011.
6. The emission limit is a six (6) minute average.
7. An exceedance of the indicator opacity of 10% will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).
8. The SO<sub>2</sub> limit is established to address the nonattainment designation for a portion of Muscatine County published in the Federal Register (78 FR 47191) on August 5, 2013. The nonattainment designation is for the 1-hour SO<sub>2</sub> primary national ambient air quality standard promulgated by EPA in 2010 (75 FR 35519, June 22, 2010).
9. Combined emission limit for EP132.1 and EP132.2.

### 11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	150 Feet
Discharge Style	Vertical Unobstructed
Stack Opening (inches, diameter)	42 inches
Exhaust Temperature (°F)	125 °F
Exhaust Flowrate (scfm)	22,388 scfm

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**12. Compliance Demonstration(s)**

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	Performance Testing	NA
PM – State	Yes	Performance Testing	Once Every 3 Calendar Years <sup>1</sup>
PM <sub>10</sub>	Yes <sup>2</sup>	Performance Testing	Once Every 3 Calendar Years <sup>1</sup>
PM <sub>2.5</sub>	Yes <sup>3</sup>	Performance Testing	Once Every 3 Calendar Years <sup>1</sup>
Opacity	Yes	Performance Testing	Once Every 3 Calendar Years <sup>1</sup>
SO <sub>2</sub>	No	Performance Testing	NA
NO <sub>x</sub>	No	Performance Testing	NA
VOC	No	Performance Testing	NA
CO	No	Performance Testing	NA
Pb	No	Performance Testing	NA
HAP	No	Performance Testing	NA

<sup>1</sup> After the initial performance test, performance testing for PM, PM<sub>10</sub>, PM<sub>2.5</sub> and opacity shall be conducted once every 3 calendar years. After completion of three consecutive performance tests that demonstrate compliance with the PM, PM<sub>10</sub>, and PM<sub>2.5</sub> emission limits in condition 10, the owner or operator may request to modify the performance testing frequency for PM, PM<sub>10</sub>, PM<sub>2.5</sub> and opacity.

<sup>2</sup> It is acceptable to test for PM and to assume that all PM emissions are PM<sub>10</sub> emissions.

<sup>3</sup> If performance testing using methods specified in 40 CFR Part 51, Appendix M, 201A with 202 are not performed due to high moisture content (stack saturation), the owner or operator shall demonstrate compliance with the PM<sub>2.5</sub> limit as specified in condition 10 by using methods specified in 40 CFR Part 60, Appendix A, Method 5 and 40 CFR Part 51, Appendix M, Method 202. Using Method 5, the filterable PM<sub>2.5</sub> fraction shall be determined by conducting internal particle sizing of the dried maltodextrin product (immediately following the dryer) to determine the PM<sub>2.5</sub> fraction of the measured total filterable particulate. The entire condensable fraction, measured by using Method 202, shall be considered PM<sub>2.5</sub>.

**If an initial compliance demonstration specified above is testing**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 within one hundred and twenty (120) days after the modifications to the Venturi Scrubber (CE3111-2) are completed.

**If subsequent testing is specified above**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner’s authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM <sub>10</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
PM <sub>2.5</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO <sub>2</sub>	1 hour	40 CFR 60, Appendix A, Method 6C
NO <sub>x</sub>	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 25A
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

## **12. Compliance Demonstration(s) (Continued)**

Per 567 IAC 25.1(7)"a", at the Department's request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

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## **13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability**

This emission unit is not subject to any New Source Performance Standard or National Emission Standards for Hazardous Air Pollutants (NESHAP) at this time. There are no applicable subparts.

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## **14. Operating Limits**

Operating limits for this emission unit shall be:

- A. The owner or operator shall make improvements to the Venturi Scrubber (CE3111-2) by adding packed bed sections and by insulating the stack by September 1, 2016.
  - B. The owner or operator shall increase the stack height of EP132.2 from 126 feet to 150 feet above ground by September 1, 2016.
  - C. No later than 60 days prior to initiating modification of the Venturi Scrubber (CE3111-2), the owner or operator shall apply to modify this construction permit. In the application, the owner or operator shall include, at a minimum, the following information to the Department for the scrubber: the manufacturer and model number of the scrubber, the total liquor flow rate to the scrubber, the recycled liquor flow rate to the scrubber, the pH of the liquor used in the scrubber, the reagents used in the liquor of the scrubber, the pressure drop range across the scrubber, the pollutants controlled and an estimate of the scrubber's control efficiency for the different air pollutants.
  - D. The owner or operator shall develop an operating and maintenance plan for the Product Recovery Cyclones, including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
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### 15. Operating Condition Monitoring and Recordkeeping

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. The owner or operator shall maintain a record of the completion date for the modification to the Venturi Scrubber (CE3111-1) by adding packed bed sections and by insulating the stack.
- B. The owner or operator shall maintain a record of the completion date that EP132.1 was raised from 126 feet to 150 feet above ground.
- C. The owner or operator shall develop for the Venturi Scrubber (CE3111-1) a monitoring system that will monitor and record continuously scrubber operating parameters to ensure continuous compliance with the emission limits. Such parameters shall include, but are not limited to, the total liquor flow rate to the scrubber, and the pressure drop across the scrubber.
- D. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Product Recovery Cyclones.

### 16. Continuous Emission Monitoring

Continuous emission monitoring is not required by this permit at this time.

### 17. Permit History

Permit No.	Project No.	Description	Date	Stack Testing
80-A-150	80-210	Original Permit	09/24/80	Yes
80-A-150-S1	_____	Amended PM LAER Limit based on compliance testing	02/14/84	No
80-A-150-S2	01-467	Increased airflow through the dryer by about 10% (as-built)	10/15/02	Yes
80-A-150-S3	03-072	Amended PM & PM <sub>10</sub> allowables	02/07/02	Yes
80-A-150-S4	03-113	Amended PM <sub>10</sub> allowable	06/24/03	No

## 18. Description of Terms and Acronyms

*The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.*

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
PM <sub>2.5</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM <sub>10</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm <sub>v</sub>	parts per million by volume
ppm <sub>w</sub>	parts per million by weight
RACT	Reasonably Available Control Technology
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

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**END OF PERMIT**

# Iowa Department of Natural Resources

## Air Quality Construction Permit

### Permit Holder

**Firm:** Grain Processing Corporation

**Contact:**

Mick Durham  
Director of Environmental Services

(563) 264-4569

1600 Oregon Street  
Muscatine, IA 52761

**Responsible Party:**

Ron Zitzow  
Senior Vice President

### Permitted Equipment

**Emission Unit(s):** Maltrin #4 Spray Dryer, East Stack (EU3110.0)  
Maltrin #4 Spray Dryer Direct-Fired Burner (EU3110.1)  
Maximum Dryer Feed Rate: 4.17 tons of maltrin per hour, dry solids basis  
Maximum Natural Gas Firing Rate: 24 MMBtu/hr

**Control Equipment:** Product Recovery Cyclone, Packed Bed Scrubber (CE3110-1)

**Emission Point:** EP135.0

**Equipment Location:** 1600 Oregon Street  
Muscatine, IA 52761

**Plant Number:** 70-01-004

Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Project No.	Description	Date	Stack Testing
85-A-031-S2	15-050	Increase Stack Height, Add PM <sub>2.5</sub> , SO <sub>2</sub> and VOC Emission Limits	12/10/15	Yes



Under the Direction of the Director of  
the Department of Natural Resources



## PERMIT CONDITIONS

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### 1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

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### 2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) "*Maintenance and Repair*".

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### 3. Transferability

As limited by 567 IAC 22.3(3)"f", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment<sup>1</sup> (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

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<sup>1</sup> A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

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### 4. Construction

#### A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

#### 4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:

- (1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
- (2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
- (3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

#### B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:

- (1) Any changes are made to the final plans and specifications submitted for the proposed project; or
- (2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

#### C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:

- (1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
- (2) This current amendment becomes void.

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### 5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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### 6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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## 7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to \$10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

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## 8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:

- (1) Per 567 IAC 22.3(3)"b":
  - (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
  - (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
- (2) Per 567 IAC 22.3(3)"f", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
  - (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
  - (b) at least seven (7) days before equipment relocation.
- (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324

and include the following information:

- The date of ownership change,
  - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
  - The construction permit number(s) of the equipment changing ownership.
- (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
- the time,
  - the place,
  - the name of the person who will conduct the tests,
  - and other information as required by the Department;

If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:

- (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
- (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
- (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
- (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.

**8. Notification, Reporting, and Recordkeeping (Continued)**

- (5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;
- C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)
- D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9549  
Fax: (515) 725-9501

- E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9545  
Fax: (515) 725-9502

- F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	DNR Field Office 6 1023 West Madison Washington, IA 52353 Telephone: (319) 653-2135 Fax: (319) 653-2856
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**9. Appeal Rights**

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

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Director Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319
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### 10. Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr <sup>1</sup>	tons/yr <sup>2</sup>	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	2.12 <sup>3</sup>	NA	0.1 gr/dscf	23.4(7)
Particulate Matter (PM) – State	NA	NA	0.03 gr/dscf	31.20(1) <sup>d</sup> , LAER
PM <sub>10</sub>	2.12 <sup>4</sup>	NA	NA	NAAQS
PM <sub>2.5</sub>	0.800 <sup>5</sup>	NA	NA	NAAQS
Opacity	NA	NA	40% <sup>6,7</sup>	23.3(2) <sup>d</sup>
Sulfur Dioxide (SO <sub>2</sub> )	0.014 <sup>8,9</sup>	NA	500 ppm <sub>v</sub>	RACT, 23.3(3) <sup>e</sup>
Nitrogen Oxides (NO <sub>x</sub> )	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	4.7 ppm <sub>v,d</sub> <sup>10</sup>	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

1. The emission limit is expressed as the average of three (3) runs.
2. The emission limit is a twelve (12) month rolling total.
3. Requested by facility to restrict potential emissions of PM.
4. The limit for PM<sub>10</sub> emissions is established to correspond to the emission rate used in the dispersion modeling required by the consent decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV016788, Iowa District Court in and for Muscatine County (July 17, 2006)].
5. The limit for PM<sub>2.5</sub> emissions is established to address the “Finding of Substantial Inadequacy of Implementation Plan; Call for Iowa SIP Revision” for PM<sub>2.5</sub> published in the Federal Register (76 FR 9706) on February 22, 2011.
6. The emission limit is a six (6) minute average.
7. An exceedance of the indicator opacity of no visible emissions will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).
8. The SO<sub>2</sub> limit is established to address the nonattainment designation for a portion of Muscatine County published in the Federal Register (78 FR 47191) on August 5, 2013. The nonattainment designation is for the 1-hour SO<sub>2</sub> primary national ambient air quality standard promulgated by EPA in 2010 (75 FR 35519, June 22, 2010).
9. Combined emission limit for EP135.0 and EP136.0.
10. The limit for VOC emissions as required by the consent order, judgment, and decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV020979, Iowa District Court for Muscatine County (March 27, 2014)].

### 11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	164 Feet
Discharge Style	Vertical Unobstructed
Stack Opening (inches, diameter)	42 inches
Exhaust Temperature (°F)	125 °F
Exhaust Flowrate (scfm)	25,272 scfm

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**12. Compliance Demonstration(s)**

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	Performance Testing	NA
PM – State	Yes	Performance Testing	Once Every 3 Calendar Years <sup>1</sup>
PM <sub>10</sub>	Yes <sup>2</sup>	Performance Testing	Once Every 3 Calendar Years <sup>1</sup>
PM <sub>2.5</sub>	Yes <sup>3</sup>	Performance Testing	Once Every 3 Calendar Years <sup>1</sup>
Opacity	Yes	Performance Testing	Once Every 3 Calendar Years <sup>1</sup>
SO <sub>2</sub>	No	Performance Testing	NA
NO <sub>x</sub>	No	Performance Testing	NA
VOC	Yes	Performance Testing	One-Time
CO	No	Performance Testing	NA
Pb	No	Performance Testing	NA
HAP	No	Performance Testing	NA

<sup>1</sup> After the initial performance test, performance testing for PM, PM<sub>10</sub>, PM<sub>2.5</sub> and opacity shall be conducted once every 3 calendar years. After completion of three consecutive performance tests that demonstrate compliance with the PM, PM<sub>10</sub>, and PM<sub>2.5</sub> emission limits in condition 10, the owner or operator may request to modify the performance testing frequency for PM, PM<sub>10</sub>, PM<sub>2.5</sub> and opacity.

<sup>2</sup> It is acceptable to test for PM and to assume that all PM emissions are PM<sub>10</sub> emissions.

<sup>3</sup> If performance testing using methods specified in 40 CFR Part 51, Appendix M, 201A with 202 are not performed due to high moisture content (stack saturation), the owner or operator shall demonstrate compliance with the PM<sub>2.5</sub> limit as specified in Condition 10 by using methods specified in 40 CFR Part 60, Appendix A, Method 5 and 40 CFR Part 51, Appendix M, Method 202. Using Method 5, the filterable PM<sub>2.5</sub> fraction shall be determined by conducting internal particle sizing of the dried maltodextrin product (immediately following the dryer) to determine the PM<sub>2.5</sub> fraction of the measured total filterable particulate. The entire condensable fraction, measured by using Method 202, shall be considered PM<sub>2.5</sub>.

**If an initial compliance demonstration specified above is testing**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 by no later than one hundred and twenty (120) days after the issuance date of the permit.

**If subsequent testing is specified above**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner’s authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM <sub>10</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
PM <sub>2.5</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO <sub>2</sub>	1 hour	40 CFR 60, Appendix A, Method 6C
NO <sub>x</sub>	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18 or 40 CFR 63, Appendix A, Method 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
HAP	1 hour	40 CFR 60, Appendix A, Method 18

## 12. Compliance Demonstration(s) (Continued)

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

Per 567 IAC 25.1(7)"a", at the Department's request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

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## 13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability

This emission unit is not subject to any New Source Performance Standard or National Emission Standards for Hazardous Air Pollutants (NESHAP) at this time. There are no applicable subparts.

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## 14. Operating Limits

Operating limits for this emission unit shall be:

- A. The total flowrate of the Packed Bed Scrubber's (CE3110-1) liquor shall be maintained at or above 400 gallons per minute.
- B. The differential pressure drop across the Packed Bed Scrubber (CE3110-1) shall be maintained between 0.3 and 5 inches water column.
- C. The owner or operator shall properly operate and maintain equipment to monitor the total liquor flow rate and the differential pressure drop across the Packed Bed Scrubber (CE3110-1). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
- D. The owner or operator shall develop an operating and maintenance plan for the Product Recovery Cyclone, including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
- E. The owner or operator shall develop an operating and maintenance plan for the Packed Bed Scrubber (CE3110-1), including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
- F. The owner or operator shall increase the stack height of EP135.0 from 94 feet to 164 feet above ground by September 1, 2016.

- G. The owner or operator shall tune burner (EU3110.1) on an annual basis to maintain good combustion. The annual burner tune-up activity shall include at a minimum:
- Inspect the burner-Clean and replace any components, as necessary
  - Inspect the flame pattern and flame dimensions-Adjust the burner as necessary to optimize the flame pattern and dimensions. The adjustment should be consistent with manufacturer's specifications, if available.
  - Inspect the air-to fuel ratio control system-Ensure the control system is calibrated and functioning properly, if such a system is installed.
  - Optimize emissions of carbon dioxide- Optimize emissions consistent with the manufacturer's specifications, if available, and with any nitrogen oxide requirement to which unit may be subject.
  - Verify that emissions (carbon dioxide and nitrogen oxide) and oxygen levels in the exhaust have been optimized consistent per manufactures specifications.

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## 15. Operating Condition Monitoring and Recordkeeping

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. The owner or operator shall collect and record the total liquor flow rate to the Packed Bed Scrubber (CE3110-1), in gallons per minute, at least once per day. If the liquor flow rate to the Packed Bed Scrubber (CE3110-1) falls below the value specified in Condition 14 A., the owner or operator shall investigate the Packed Bed Scrubber (CE3110-1) and make corrections to it. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the Packed Bed Scrubber (CE3110-1) is not in operation.
- B. The owner or operator shall collect and record the pressure drop across the Packed Bed Scrubber (CE3110-1), in inches of water, at least once per day. If the pressure drop across the Packed Bed Scrubber (CE3110-1) falls outside the range specified in Condition 14 B., the owner or operator shall investigate the Packed Bed Scrubber (CE3110-1) and make corrections to it. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the Packed Bed Scrubber (CE3110-1) is not in operation.
- C. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Product Recovery Cyclone.
- D. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Packed Bed Scrubber (CE3110-1).
- E. The owner or operator shall maintain a record of the completion date that EP135.0 was raised from 94 feet to 164 feet above ground.
- F. The owner or operator shall maintain record on annual basis of the following:
- The completion date of burner (EU3110.1) tuning as specified in condition 14G,
  - Burner (EU3110.1) emissions (carbon dioxide and nitrogen oxide) and oxygen levels in the exhaust have been optimized consistent per manufactures specifications.
- G. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the burner (EU3110.1).

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## 16. Continuous Emission Monitoring

Continuous emission monitoring is not required by this permit at this time.

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**17. Permit History**

Permit No.	Project No.	Description	Date	Stack Testing
85-A-031	85-030	Original Permit	03/26/85	Yes
85-A-031-S1	09-281	Increase Stack Height and Modify PM/PM <sub>10</sub> Emission Limits	07/16/09	No

**18. Description of Terms and Acronyms**

*The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.*

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
PM <sub>2.5</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM <sub>10</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm <sub>v</sub>	parts per million by volume
ppm <sub>w</sub>	parts per million by weight
RACT	Reasonably Available Control Technology
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

**END OF PERMIT**

# Iowa Department of Natural Resources

## Air Quality Construction Permit

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### Permit Holder

**Firm:** Grain Processing Corporation

**Contact:**

Mick Durham  
Director of Environmental Services

(563) 264-4569

1600 Oregon Street  
Muscatine, IA 52761

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**Responsible Party:**

Ron Zitzow  
Senior Vice President

### Permitted Equipment

**Emission Unit(s):** Maltrin #4 Spray Dryer, West Stack (EU3110.0)  
Maltrin #4 Spray Dryer Direct-Fired Burner (EU3110.1)  
Maximum Dryer Feed Rate: 4.17 tons of maltrin per hour, dried solids basis  
Maximum Natural Gas Firing Rate: 24 MMBtu/hr

**Control Equipment:** Product Recovery Cyclone and Baghouse (CE3110-3), Packed Bed Scrubber (CE3110-2)

**Emission Point:** EP136.0

**Equipment Location:** 1600 Oregon Street  
Muscatine, IA 52761

**Plant Number:** 70-01-004

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Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Project No.	Description	Date	Stack Testing
85-A-032-S2	15-050	Increase Stack Height, Add PM <sub>2.5</sub> , SO <sub>2</sub> and VOC Emission Limits.	12/10/15	Yes



Under the Direction of the Director of  
the Department of Natural Resources

## PERMIT CONDITIONS

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### 1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

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### 2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) "*Maintenance and Repair*".

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### 3. Transferability

As limited by 567 IAC 22.3(3)"f", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment<sup>1</sup> (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

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<sup>1</sup> A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

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### 4. Construction

#### A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

#### 4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:

- (1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
- (2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
- (3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

#### B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:

- (1) Any changes are made to the final plans and specifications submitted for the proposed project; or
- (2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

#### C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:

- (1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
- (2) This current amendment becomes void.

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### 5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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### 6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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## 7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to \$10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

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## 8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:

- (1) Per 567 IAC 22.3(3)"b":
  - (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
  - (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
- (2) Per 567 IAC 22.3(3)"f", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
  - (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
  - (b) at least seven (7) days before equipment relocation.
- (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324

and include the following information:

- The date of ownership change,
  - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
  - The construction permit number(s) of the equipment changing ownership.
- (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
    - the time,
    - the place,
    - the name of the person who will conduct the tests,
    - and other information as required by the Department;

If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:

- (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
- (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
- (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
- (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.

### 8. Notification, Reporting, and Recordkeeping (Continued)

(5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;

C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)

D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9549  
Fax: (515) 725-9501

E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9545  
Fax: (515) 725-9502

F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	DNR Field Office 6 1023 West Madison Washington, IA 52353 Telephone: (319) 653-2135 Fax: (319) 653-2856
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### 9. Appeal Rights

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

Director Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319
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### 10. Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr <sup>1</sup>	tons/yr <sup>2</sup>	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	3.26 <sup>3</sup>	NA	0.1 gr/dscf	23.4(7)
Particulate Matter (PM) – State	NA	NA	0.03 gr/dscf	31.20(1)"d", LAER
PM <sub>10</sub>	3.26 <sup>4</sup>	NA	NA	NAAQS
PM <sub>2.5</sub>	1.000 <sup>5</sup>	NA	NA	NAAQS
Opacity	NA	NA	40% <sup>6,7</sup>	23.3(2)"d"
Sulfur Dioxide (SO <sub>2</sub> )	0.014 <sup>8,9</sup>	NA	500 ppm <sub>v</sub>	RACT, 23.3(3)"e"
Nitrogen Oxides (NO <sub>x</sub> )	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	4.7 ppm <sub>v,d</sub> <sup>10</sup>	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

1. The emission limit is expressed as the average of three (3) runs.
2. The emission limit is a twelve (12) month rolling total.
3. Requested by facility to restrict potential emissions of PM.
4. The limit for PM<sub>10</sub> emissions is established to correspond to the emission rate used in the dispersion modeling required by the consent decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV016788, Iowa District Court in and for Muscatine County (July 17, 2006)].
5. The limit for PM<sub>2.5</sub> emissions is established to address the "Finding of Substantial Inadequacy of Implementation Plan; Call for Iowa SIP Revision" for PM<sub>2.5</sub> published in the Federal Register (76 FR 9706) on February 22, 2011.
6. The emission limit is a six (6) minute average.
7. An exceedance of the indicator opacity of 10% will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).
8. The SO<sub>2</sub> limit is established to address the nonattainment designation for a portion of Muscatine County published in the Federal Register (78 FR 47191) on August 5, 2013. The nonattainment designation is for the 1-hour SO<sub>2</sub> primary national ambient air quality standard promulgated by EPA in 2010 (75 FR 35519, June 22, 2010).
9. Combined emission limit for EP135.0 and EP136.0.
10. The limit for VOC emissions as required by the consent order, judgment, and decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV020979, Iowa District Court for Muscatine County (March 27, 2014)].

### 11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	164 Feet
Discharge Style	Vertical Unobstructed
Stack Opening (inches, diameter)	42 inches
Exhaust Temperature (°F)	125 °F
Exhaust Flowrate (scfm)	26,942 scfm

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**12. Compliance Demonstration(s)**

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	Performance Testing	NA
PM – State	Yes	Performance Testing	Once Every 3 Calendar Years <sup>1</sup>
PM <sub>10</sub>	Yes <sup>2</sup>	Performance Testing	Once Every 3 Calendar Years <sup>1</sup>
PM <sub>2.5</sub>	Yes <sup>3</sup>	Performance Testing	Once Every 3 Calendar Years <sup>1</sup>
Opacity	Yes	Performance Testing	Once Every 3 Calendar Years <sup>1</sup>
SO <sub>2</sub>	No	Performance Testing	NA
NO <sub>x</sub>	No	Performance Testing	NA
VOC	Yes	Performance Testing	One-Time
CO	No	Performance Testing	NA
Pb	No	Performance Testing	NA
HAP	No	Performance Testing	NA

<sup>1</sup> After the initial performance test, performance testing for PM, PM<sub>10</sub>, PM<sub>2.5</sub> and opacity shall be conducted once every 3 calendar years. After completion of three consecutive performance tests that demonstrate compliance with the PM, PM<sub>10</sub>, and PM<sub>2.5</sub> emission limits in condition 10, the owner or operator may request to modify the performance testing frequency for PM, PM<sub>10</sub>, PM<sub>2.5</sub> and opacity.

<sup>2</sup> It is acceptable to test for PM and to assume that all PM emissions are PM<sub>10</sub> emissions.

<sup>3</sup> If performance testing using methods specified in 40 CFR Part 51, Appendix M, 201A with 202 are not performed due to high moisture content (stack saturation), the owner or operator shall demonstrate compliance with the PM<sub>2.5</sub> limit as specified in Condition 10 by using methods specified in 40 CFR Part 60, Appendix A, Method 5 and 40 CFR Part 51, Appendix M, Method 202. Using Method 5, the filterable PM<sub>2.5</sub> fraction shall be determined by conducting internal particle sizing of the dried maltodextrin product (immediately following the dryer) to determine the PM<sub>2.5</sub> fraction of the measured total filterable particulate. The entire condensable fraction, measured by using Method 202, shall be considered PM<sub>2.5</sub>.

**If an initial compliance demonstration specified above is testing**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 by no later than one hundred and twenty (120) days after the issuance date of the permit.

**If subsequent testing is specified above**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner’s authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM <sub>10</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
PM <sub>2.5</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO <sub>2</sub>	1 hour	40 CFR 60, Appendix A, Method 6C
NO <sub>x</sub>	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18 or 40 CFR 63, Appendix A, Method 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.



## **12. Compliance Demonstration(s) (Continued)**

Per 567 IAC 25.1(7)"a", at the Department's request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

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## **13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability**

This emission unit is not subject to any New Source Performance Standard or National Emission Standards for Hazardous Air Pollutants (NESHAP) at this time. There are no applicable subparts.

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## **14. Operating Limits**

Operating limits for this emission unit shall be:

- A. The total flowrate of the Packed Bed Scrubber's (CE3110-2) liquor shall be maintained at or above 400 gallons per minute.
- B. The differential pressure drop across the Packed Bed Scrubber (CE3110-2) shall be maintained between 0.3 and 5 inches water column.
- C. The differential pressure drop across the Baghouse (CE3110-3) shall be maintained between 1 and 6 inches water column.
- D. The owner or operator shall properly operate and maintain equipment to monitor the total liquor flow rate and the differential pressure drop across the Packed Bed Scrubber (CE3110-2). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
- E. The owner or operator shall properly operate and maintain equipment to monitor the differential pressure drop across the Baghouse (CE3110-3). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
- F. The owner or operator shall develop an operating and maintenance plan for the Product Recovery Cyclone, including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
- G. The owner or operator shall develop an operating and maintenance plan for the Packed Bed Scrubber (CE3110-2), including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
- H. The owner or operator shall develop an operating and maintenance plan for the Baghouse (CE3110-3), including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.

#### 14. Operating Limits (continued)

- I. The owner or operator shall increase the stack height of EP136.0 from 94 feet to 164 feet above ground by September 1, 2016.
  - J. The owner or operator shall tune burner (EU3110.1) on an annual basis to maintain good combustion. The annual burner tune-up activity shall include at a minimum:
    - Inspect the burner-Clean and replace any components, as necessary
    - Inspect the flame pattern and flame dimensions-Adjust the burner as necessary to optimize the flame pattern and dimensions. The adjustment should be consistent with manufacturer's specifications, if available.
    - Inspect the air-to fuel ratio control system-Ensure the control system is calibrated and functioning properly, if such a system is installed.
    - Optimize emissions of carbon dioxide- Optimize emissions consistent with the manufacturer's specifications, if available, and with any nitrogen oxide requirement to which unit may be subject.
    - Verify that emissions (carbon dioxide and nitrogen oxide) and oxygen levels in the exhaust have been optimized consistent per manufactures specifications.
- 

#### 15. Operating Condition Monitoring and Recordkeeping

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. The owner or operator shall collect and record the total liquor flow rate to the Packed Bed Scrubber (CE3110-2), in gallons per minute, at least once per day. If the liquor flow rate to the Packed Bed Scrubber (CE3110-2) falls below the value specified in Condition 14 A., the owner or operator shall investigate the Packed Bed Scrubber (CE3110-2) and make corrections to it. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the Packed Bed Scrubber (CE3110-2) is not in operation.
- B. The owner or operator shall collect and record the pressure drop across the Packed Bed Scrubber (CE3110-2), in inches of water, at least once per day. If the pressure drop across the Packed Bed Scrubber (CE3110-2) falls outside the range specified in Condition 14 B., the owner or operator shall investigate the Packed Bed Scrubber (CE3110-2) and make corrections to it. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the Packed Bed Scrubber (CE3110-2) is not in operation.
- C. The owner or operator shall collect and record the pressure drop across the Baghouse (CE3110-3), in inches of water, at least once per day. If the pressure drop across the Baghouse (CE3110-3) falls outside the range specified in Condition 14 C., the owner or operator shall investigate the Baghouse (CE3110-3) and make corrections to it. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the Baghouse (CE3110-3) is not in operation.
- D. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Product Recovery Cyclone.
- E. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Packed Bed Scrubber (CE3110-2).
- F. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Baghouse (CE3110-3).
- G. The owner or operator shall maintain a record of the completion date that EP135.0 was raised from 94 feet to 164 feet above ground.

H. The owner or operator shall maintain record on annual basis of the following:

- The completion date of burner (EU3110.1) tuning as specified in condition 14J,
- Burner (EU3110.1) emissions (carbon dioxide and nitrogen oxide) and oxygen levels in the exhaust have been optimized consistent per manufactures specifications.

I. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the burner (EU3110.1).

### 16. Continuous Emission Monitoring

Continuous emission monitoring is not required by this permit at this time.

### 17. Permit History

Permit No.	Project No.	Description	Date	Stack Testing
85-A-032	85-031	Original Permit	03/26/85	Yes
85-A-032-S1	09-281	Increase Stack Height and Modify PM/PM <sub>10</sub> Emission Limits	07/16/09	No

### 18. Description of Terms and Acronyms

*The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.*

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
PM <sub>2.5</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM <sub>10</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm <sub>v</sub>	parts per million by volume
ppm <sub>w</sub>	parts per million by weight

RACT	Reasonably Available Control Technology
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

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**END OF PERMIT**

# Iowa Department of Natural Resources Air Quality PSD Construction Permit

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## Permit Holder

**Firm:** Grain Processing Corporation

**Contact:**

Mick Durham  
Director of Environmental Services

(563) 264-4569

1600 Oregon Street  
Muscatine, IA 52761

**Responsible Party:**

Ron Zitzow  
Senior Vice President

1600 Oregon Street  
Muscatine, IA 52761

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## Permitted Equipment

**Emission Unit(s):** Combustion Engineering Natural Gas Fired Boiler – Boiler #10 (EU5210.0)  
Maximum Capacity: 162 MMBTU/hr heat input (natural gas combustion only)

**Control Measure:** Low Excess Air (CE5210.0)

**Emission Point:** EP142.0

**Equipment Location:** 1600 Oregon Street  
Muscatine, IA 52761

**Plant Number:** 70-01-004

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Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Proj. No.	Description	Date	Stack Testing
85-A-038-P1	15-050	Add PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> , VOC and CO emission limits	12/10/15	Yes



Under the Direction of the Director of  
the Department of Natural Resources

## PERMIT CONDITIONS

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### 1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

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### 2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) "*Maintenance and Repair*".

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### 3. Transferability

As limited by 567 IAC 22.3(3)"P", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment<sup>1</sup> (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

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<sup>1</sup> A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

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### 4. Construction

#### A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

#### 4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:

- (1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
- (2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
- (3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

##### B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:

- (1) Any changes are made to the final plans and specifications submitted for the proposed project; or
- (2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

##### C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:

- (1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
- (2) This current amendment becomes void.

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#### 5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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#### 6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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## 7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to \$10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

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## 8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:

- (1) Per 567 IAC 22.3(3)"b":
  - (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
  - (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
- (2) Per 567 IAC 22.3(3)"f", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
  - (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
  - (b) at least seven (7) days before equipment relocation.
- (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324

and include the following information:

- The date of ownership change,
  - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
  - The construction permit number(s) of the equipment changing ownership.
- (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
- the time,
  - the place,
  - the name of the person who will conduct the tests,
  - and other information as required by the Department;

If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:

- (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
- (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
- (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
- (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.
- (5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;



## 8. Notification, Reporting, and Recordkeeping (Continued)

- C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)
- D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9549  
Fax: (515) 725-9501

- E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9545  
Fax: (515) 725-9502

- F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	DNR Field Office 6 1023 West Madison Washington, IA 52353-1623 Telephone: (319) 653-2135 Fax: (319) 653-2856
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## 9. Appeal Rights

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

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Director Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319
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### 10a. Best Available Control Technology (BACT) Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr <sup>1</sup>	tons/yr <sup>2</sup>	Additional Limits	Reference (567 IAC)
Nitrogen Oxides (NO <sub>x</sub> )	NA	NA	0.25 lb/MMBtu <sup>3</sup>	BACT <sup>4</sup>

<sup>1</sup> The emission limit is expressed as the average of three (3) runs.

<sup>2</sup> The emission limit is a twelve (12) month rolling total.

<sup>3</sup> Based on a 24-hour average

<sup>4</sup> BACT limit in permit issued by US EPA 03/11/86.

### 10b. Other Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr <sup>1</sup>	tons/yr <sup>2</sup>	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	1.28 <sup>3</sup>	NA	0.02 lb/MMBTU	31.20(1)"d", LAER
PM <sub>10</sub>	1.28 <sup>4</sup>	NA	NA	NAAQS
PM <sub>2.5</sub>	0.700 <sup>5</sup>	NA	NA	NAAQS
Opacity	NA	NA	40% <sup>6,7</sup>	23.3(2)"d"
Sulfur Dioxide (SO <sub>2</sub> )	0.10 <sup>8</sup>	NA	500 ppm <sub>v</sub>	RACT and 23.3(3)"e"
Nitrogen Oxides (NO <sub>x</sub> )	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	0.008 lbs/MMBtu <sup>9</sup>	NA
Carbon Monoxide (CO)	NA	NA	0.05 lbs/MMBtu <sup>9</sup>	NA
Lead (Pb)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

<sup>1</sup> The emission limit is expressed as the average of three (3) runs.

<sup>2</sup> The emission limit is a twelve (12) month rolling total.

<sup>3</sup> Requested emission limit to restrict potential to emit.

<sup>4</sup> The limit for PM<sub>10</sub> emissions is established to correspond to the emission rate used in the dispersion modeling required by the consent decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV016788, Iowa District Court in and for Muscatine County (July 17, 2006)].

<sup>5</sup> The limit for PM<sub>2.5</sub> emissions is established to address the "Finding of Substantial Inadequacy of Implementation Plan; Call for Iowa SIP Revision" for PM<sub>2.5</sub> published in the Federal Register (76 FR 9706) on February 22, 2011.

<sup>6</sup> The emission limit is a six (6) minute average.

<sup>7</sup> An exceedance of the indicator opacity of no visible emissions will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).

<sup>8</sup> The SO<sub>2</sub> limit is established to address the nonattainment designation for a portion of Muscatine County published in the Federal Register (78 FR 47191) on August 5, 2013. The nonattainment designation is for the 1-hour SO<sub>2</sub> primary national ambient air quality standard promulgated by EPA in 2010 (75 FR 35519, June 22, 2010).

<sup>9</sup> The limit for VOC and CO emissions as required by the consent order, judgment, and decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV020979, Iowa District Court for Muscatine County (March 27, 2014)].

**11. Emission Point Characteristics**

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	110 Feet
Discharge Style	Vertical, unobstructed
Stack Opening (inches)	60 inches
Exhaust Temperature (°F)	300° F
Exhaust Flowrate (scfm)	33,000 scfm

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**12. Compliance Demonstration(s)**

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	NA	NA
PM – State	No	NA	NA
PM <sub>10</sub>	No	NA	NA
PM <sub>2.5</sub>	Yes	Performance Testing	One Time
Opacity	No	NA	NA
SO <sub>2</sub>	No	NA	NA
NO <sub>x</sub>	Yes	Performance Testing	One Time
VOC	Yes	Performance Testing	One Time
CO	Yes	Performance Testing	One Time
Pb	No	NA	NA
HAP	No	NA	NA

**If an initial compliance demonstration specified above is testing**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 no later than one hundred and twenty (120) days after the issuance date of this permit.

**If subsequent testing is specified above**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner’s authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM <sub>10</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
PM <sub>2.5</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO <sub>2</sub>	1 hour	40 CFR 60, Appendix A, Method 6C
NO <sub>x</sub>	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18 or 40 CFR 63, Appendix A, Method 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
HAP	1 hour	40 CFR 60, Appendix A, Method 18

## 12. Compliance Demonstration(s) (continued)

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

Per 567 IAC 25.1(7)"a", at the Department's request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

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## 13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability

- A. This emission unit (EU5210.0) is not subject to NSPS Subpart Db – Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units (IAC 23.1(2)"ccc"). The boiler was originally built in 1972. This pre-dates the applicability date for Subpart Db. The boiler has not been modified or reconstructed in accordance with the definitions in §60.14 or §60.15.
- B. **For information only:** This emission unit (EU5210.0) is of the source category affected by the following federal regulations: National Emission Standards for Hazardous Air Pollutants: 40 CFR Part 63 Subpart DDDDD.

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## 14. Operating Limits

Operating limits for this emission unit shall be:

- A. The owner or operator shall tune Power House Boiler No. 10 burners on an annual basis to maintain good combustion. The annual burner tune-up activity shall include at a minimum:
- Inspect the burner-Clean and replace any components, as necessary
  - Inspect the flame pattern and flame dimensions-Adjust the burner as necessary to optimize the flame pattern and dimensions. The adjustment should be consistent with manufacturer's specifications, if available.
  - Inspect the air-to fuel ratio control system-Ensure the control system is calibrated and functioning properly, if such a system is installed.
  - Optimize emissions of carbon dioxide- Optimize emissions consistent with the manufacturer's specifications, if available, and with any nitrogen oxide requirement to which unit may be subject.
  - Verify that emissions (carbon dioxide and nitrogen oxide) and oxygen levels in the exhaust have been optimized consistent per manufactures specifications.

### 15. Operating Condition Monitoring and Recordkeeping

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. The owner or operator shall maintain record on annual basis of the following:
  - The completion date of Power House Boiler No. 10 burners tuning as specified in condition 14A,
  - Power House Boiler No. 10 burners emissions (carbon dioxide and nitrogen oxide) and oxygen levels in the exhaust have been optimized consistent per manufactures specifications.
- B. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Power House Boiler No. 10 burners.

### 16. Continuous Emission Monitoring

Continuous emission monitoring is not required by this permit at this time.

### 17. Permit History

Permit No.	Proj. No.	Description	Date	Stack Testing
85-A-038	85-037	Iowa DNR Permit Issued	03/26/85	Yes
		EPA PSD Permit Issued	03/11/86	Yes

### 18. Description of Terms and Acronyms

*The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.*

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter

mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
PM <sub>2.5</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM <sub>10</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm <sub>v</sub>	parts per million by volume
ppm <sub>w</sub>	parts per million by weight
RACT	Reasonably Available Control Technology
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

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**END OF PERMIT**

# Iowa Department of Natural Resources Air Quality PSD Construction Permit

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## Permit Holder

**Firm:** Grain Processing Corporation

**Contact:**

Mick Durham  
Director of Environmental Services

(563) 264-4569

1600 Oregon Street  
Muscatine, IA 52761

**Responsible Party:**

Ron Zitzow  
Senior Vice President

1600 Oregon Street  
Muscatine, IA 52761

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## Permitted Equipment

**Emission Unit(s):** Boiler #11: Combustion Engineering Natural Gas Fired Boiler (EU5211.0)  
Maximum Capacity: 162 MMBTU/hr heat input (natural gas combustion only)

**Control Measure:** Low Excess Air (CE5211.0)

**Emission Point:** EP153.0

**Equipment Location:** 1600 Oregon Street  
Muscatine, IA 52761

**Plant Number:** 70-01-004

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Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Proj. No.	Description	Date	Stack Testing
85-A-135-P1	15-050	Add PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> , VOC and CO emission limits	12/10/15	Yes



Under the Direction of the Director of  
the Department of Natural Resources

## PERMIT CONDITIONS

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### 1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

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### 2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) "*Maintenance and Repair*".

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### 3. Transferability

As limited by 567 IAC 22.3(3)<sup>F</sup>, this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment<sup>1</sup> (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

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<sup>1</sup> A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

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### 4. Construction

#### A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.



#### 4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:

- (1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
- (2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
- (3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

#### B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:

- (1) Any changes are made to the final plans and specifications submitted for the proposed project; or
- (2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

#### C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:

- (1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
- (2) This current amendment becomes void.

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### 5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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### 6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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## 7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to \$10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

## 8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:

- (1) Per 567 IAC 22.3(3)"b":
  - (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
  - (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
- (2) Per 567 IAC 22.3(3)"f", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
  - (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
  - (b) at least seven (7) days before equipment relocation.
- (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324

and include the following information:

- The date of ownership change,
  - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
  - The construction permit number(s) of the equipment changing ownership.
- (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
- the time,
  - the place,
  - the name of the person who will conduct the tests,
  - and other information as required by the Department;

If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:

- (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
- (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
- (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
- (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.

**8. Notification, Reporting, and Recordkeeping (Continued)**

- (5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;
- C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)
- D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9549  
Fax: (515) 725-9501

- E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9545  
Fax: (515) 725-9502

- F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	DNR Field Office 6 1023 West Madison Washington, IA 52353-1623 Telephone: (319) 653-2135 Fax: (319) 653-2856
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**9. Appeal Rights**

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

Director Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319
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### 10a. Best Available Control Technology (BACT) Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr <sup>1</sup>	tons/yr <sup>2</sup>	Additional Limits	Reference (567 IAC)
Nitrogen Oxides (NO <sub>x</sub> )	NA	NA	0.25 lb/MMBTU <sup>3</sup>	BACT <sup>4</sup>

<sup>1</sup> The emission limit is expressed as the average of three (3) runs.

<sup>2</sup> The emission limit is a twelve (12) month rolling total.

<sup>3</sup> Based on a 24-hour average

<sup>4</sup> BACT limit in permit issued by US EPA 03/11/86.

### 10b. Other Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr <sup>1</sup>	tons/yr <sup>2</sup>	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	1.28 <sup>3</sup>	NA	0.02 lb/MMBTU	31.20(1)"d", LAER
PM <sub>10</sub>	1.28 <sup>4</sup>	NA	NA	NAAQS
PM <sub>2.5</sub>	0.700 <sup>5</sup>	NA	NA	NAAQS
Opacity	NA	NA	40% <sup>6,7</sup>	23.3(2)"d"
Sulfur Dioxide (SO <sub>2</sub> )	0.10 <sup>8</sup>	NA	500 ppm <sub>v</sub>	RACT and 23.3(3)"e"
Nitrogen Oxides (NO <sub>x</sub> )	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	0.008 lbs/MMBtu <sup>9</sup>	NA
Carbon Monoxide (CO)	NA	NA	0.05 lbs/MMBtu <sup>9</sup>	NA
Lead (Pb)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

<sup>1</sup> The emission limit is expressed as the average of three (3) runs.

<sup>2</sup> The emission limit is a twelve (12) month rolling total.

<sup>3</sup> Requested emission limit to restrict potential to emit.

<sup>4</sup> The limit for PM<sub>10</sub> emissions is established to correspond to the emission rate used in the dispersion modeling required by the consent decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV016788, Iowa District Court in and for Muscatine County (July 17, 2006)].

<sup>5</sup> The limit for PM<sub>2.5</sub> emissions is established to address the "Finding of Substantial Inadequacy of Implementation Plan; Call for Iowa SIP Revision" for PM<sub>2.5</sub> published in the Federal Register (76 FR 9706) on February 22, 2011.

<sup>6</sup> The emission limit is a six (6) minute average.

<sup>7</sup> An exceedance of the indicator opacity of no visible emissions will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).

<sup>8</sup> The SO<sub>2</sub> limit is established to address the nonattainment designation for a portion of Muscatine County published in the Federal Register (78 FR 47191) on August 5, 2013. The nonattainment designation is for the 1-hour SO<sub>2</sub> primary national ambient air quality standard promulgated by EPA in 2010 (75 FR 35519, June 22, 2010).

<sup>9</sup> The limit for VOC and CO emissions as required by the consent order, judgment, and decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV020979, Iowa District Court for Muscatine County (March 27, 2014)].

### 11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	110 Feet
Discharge Style	Vertical, unobstructed
Stack Opening (inches)	60 inches
Exhaust Temperature (°F)	300° F
Exhaust Flowrate (scfm)	33,000 scfm

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

### 12. Compliance Demonstration(s)

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	NA	NA
PM – State	No	NA	NA
PM <sub>10</sub>	No	NA	NA
PM <sub>2.5</sub>	Yes	Performance Testing	One Time
Opacity	No	NA	NA
SO <sub>2</sub>	No	NA	NA
NO <sub>x</sub>	Yes	Performance Testing	One Time
VOC	Yes	Performance Testing	One Time
CO	Yes	Performance Testing	One Time
Pb	No	NA	NA
HAP	No	NA	NA

**If an initial compliance demonstration specified above is testing**, the owner or the owner's authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 no later than one hundred and twenty (120) days after the issuance date of this permit.

**If subsequent testing is specified above**, the owner or the owner's authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner's authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM <sub>10</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
PM <sub>2.5</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO <sub>2</sub>	1 hour	40 CFR 60, Appendix A, Method 6C
NO <sub>x</sub>	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18 or 40 CFR 63, Appendix A, Method 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
HAP	1 hour	40 CFR 60, Appendix A, Method 18

## 12. Compliance Demonstration(s) (Continued)

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for

Per 567 IAC 25.1(7)"a", at the Department's request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

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## 13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability

- A. This emission unit (EU5211.0) is not subject to NSPS Subpart Db – Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units (IAC 23.1(2)"ccc"). The boiler was originally built in 1972. This pre-dates the applicability date for Subpart Db. The boiler has not been modified or reconstructed in accordance with the definitions in §60.14 or §60.15.
- B. **For information only:** This emission unit (EU5211.0) is of the source category affected by the following federal regulations: National Emission Standards for Hazardous Air Pollutants: 40 CFR Part 63 Subpart DDDDD.

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## 14. Operating Limits

Operating limits for this emission unit shall be:

- A. The owner or operator shall tune Power House Boiler No. 11 burners on an annual basis to maintain good combustion. The annual burner tune-up activity shall include at a minimum:
- Inspect the burner-Clean and replace any components, as necessary
  - Inspect the flame pattern and flame dimensions-Adjust the burner as necessary to optimize the flame pattern and dimensions. The adjustment should be consistent with manufacturer's specifications, if available.
  - Inspect the air-to fuel ratio control system-Ensure the control system is calibrated and functioning properly, if such a system is installed.
  - Optimize emissions of carbon dioxide- Optimize emissions consistent with the manufacturer's specifications, if available, and with any nitrogen oxide requirement to which unit may be subject.
  - Verify that emissions (carbon dioxide and nitrogen oxide) and oxygen levels in the exhaust have been optimized consistent per manufactures specifications.
-

### 15. Operating Condition Monitoring and Recordkeeping

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. The owner or operator shall maintain record on annual basis of the following:
  - The completion date of Power House Boiler No. 11 burners tuning as specified in condition 14A,
  - Power House Boiler No. 11 burners emissions (carbon dioxide and nitrogen oxide) and oxygen levels in the exhaust have been optimized consistent per manufactures specifications.
- B. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Power House Boiler No. 11 burners.

### 16. Continuous Emission Monitoring

Continuous emission monitoring is not required by this permit at this time.

### 17. Permit History

Permit No.	Proj. No.	Description	Date	Stack Testing
85-A-135	85-181	Iowa DNR Permit Issued	11/14/85	Yes
		EPA PSD Permit Issued	03/11/86	Yes

### 18. Description of Terms and Acronyms

*The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.*

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter

mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
PM <sub>2.5</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM <sub>10</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm <sub>v</sub>	parts per million by volume
ppm <sub>w</sub>	parts per million by weight
RACT	Reasonably Available Control Technology
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

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**END OF PERMIT**



# Iowa Department of Natural Resources

## Air Quality Construction Permit

### Permit Holder

**Firm:** Grain Processing Corporation

**Contact:**

Mick Durham  
Director of Environmental Services

563.264.4569

1600 Oregon Street  
Muscatine, IA 52761

**Responsible Party:**

Ron Zitzow  
Senior Vice President

1600 Oregon Street  
Muscatine, IA 52761

### Permitted Equipment

**Emission Unit(s):** Dryer House Warehouse #2 Crown Feed Cooler (EU 1242.0)  
Maximum capacity of 25 tons per hour of dry feed

**Control Equipment:** Pulse Jet Baghouse (CE1242-1)

**Emission Point:** EP167.0

**Equipment Location:** 1600 Oregon Street  
Muscatine, IA 52761

**Plant Number:** 70-01-004

Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Project No.	Description	Date	Stack Testing
90-A-111-S1	15-051	Stack Height Increase, Establish PM <sub>2.5</sub> & SO <sub>2</sub> limit	07/06/15	Yes



Under the Direction of the Director of  
the Department of Natural Resources

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## PERMIT CONDITIONS

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### 1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

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### 2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) "*Maintenance and Repair*".

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### 3. Transferability

As limited by 567 IAC 22.3(3)"f", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment<sup>1</sup> (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

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<sup>1</sup> A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

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### 4. Construction

#### A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

#### 4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:

- (1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
- (2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
- (3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

#### B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:

- (1) Any changes are made to the final plans and specifications submitted for the proposed project; or
- (2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

#### C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:

- (1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
- (2) This current amendment becomes void.

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### 5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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### 6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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### 7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to \$10,000 per day fine and two

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## 8. Notification, Reporting, and Recordkeeping

- A. The owner or operator shall furnish the Department the following written notifications:
- (1) Per 567 IAC 22.3(3)"b":
    - (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
    - (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
  - (2) Per 567 IAC 22.3(3)"f", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
    - (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
    - (b) at least seven (7) days before equipment relocation.
  - (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324

and include the following information:

- The date of ownership change,
  - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
  - The construction permit number(s) of the equipment changing ownership.
- (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
- the time,
  - the place,
  - the name of the person who will conduct the tests,
  - and other information as required by the Department;

If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

- B. The owner or operator shall furnish the Department with the following reports:
- (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
  - (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
  - (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
  - (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.

**8. Notification, Reporting, and Recordkeeping (Continued)**

(5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;

C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)

D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9549  
Fax: (515) 725-9501

E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9545  
Fax: (515) 725-9502

F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	DNR Field Office 6 1023 West Madison Washington, IA 52353 Telephone: (319) 653-2135 Fax: (319) 653-2856
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**9. Appeal Rights**

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

Director Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319
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### 10. Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr <sup>1</sup>	tons/yr <sup>2</sup>	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	0.20 <sup>3</sup>	NA	0.1 gr/dscf	23.4(7)
PM <sub>10</sub>	0.20 <sup>4</sup>	NA	NA	NAAQS
PM <sub>2.5</sub>	0.11 <sup>5</sup>	NA	NA	NAAQS
Opacity	NA	NA	40% <sup>6,7</sup>	23.3(2)"d"
Sulfur Dioxide (SO <sub>2</sub> )	0.20 <sup>8</sup>	NA	10 ppm <sub>v,d</sub> <sup>1,9</sup>	RACT
Nitrogen Oxides (NO <sub>x</sub> )	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	15 ppm <sub>v,d</sub> <sup>1,9</sup>	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

1. The emission limit is expressed as the average of three (3) runs.
2. The emission limit is a twelve (12) month rolling total.
3. Limit maintains Project 90-082 as minor project for the purposes of PSD review.
4. The limit for PM<sub>10</sub> emissions is established to correspond to the emission rate used in the dispersion modeling required by the consent decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV016788, Iowa District Court in and for Muscatine County (July 17, 2006)].
5. The limit for PM<sub>2.5</sub> emissions is established to address the "Finding of Substantial Inadequacy of Implementation Plan; Call for Iowa SIP Revision" for PM<sub>2.5</sub> published in the Federal Register (76 FR 9706) on February 22, 2011.
6. The emission limit is a six (6) minute average.
7. An exceedance of the indicator opacity of "No Visible Emissions" will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).
8. The SO<sub>2</sub> limit is established to address the nonattainment designation for a portion of Muscatine County published in the Federal Register (78 FR 47191) on August 5, 2013. The nonattainment designation is for the 1-hour SO<sub>2</sub> primary national ambient air quality standard promulgated by EPA in 2010 (75 FR 35519, June 22, 2010).
9. The limits for SO<sub>2</sub> and VOC emissions as required by the consent order, judgment, and decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV020979, Iowa District Court for Muscatine County (March 27, 2014)].

### 11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	80.0 Feet
Discharge Style	Vertical Unobstructed Discharge
Stack Opening (inches, diameter)	27 inches Diameter
Exhaust Temperature (°F)	82 °F
Exhaust Flowrate (scfm)	8500 scfm

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**12. Compliance Demonstration(s)**

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	Performance Testing	NA
PM – State	Yes	Performance Testing	One Time
PM <sub>10</sub>	Yes	Performance Testing	One Time
PM <sub>2.5</sub>	Yes	Performance Testing	One Time
Opacity	Yes	Performance Testing	One Time
SO <sub>2</sub>	Yes	Performance Testing	One Time
NO <sub>x</sub>	No	NA	NA
VOC	Yes	Performance Testing	One Time
CO	No	NA	NA
Pb	No	NA	NA
HAP	No	NA	NA

**If an initial compliance demonstration specified above is testing**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 within 90 days after permit issuance.

**If subsequent testing is specified above**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner’s authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM <sub>10</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
PM <sub>2.5</sub>	2 hours	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO <sub>2</sub>	1 hour	40 CFR 60, Appendix A, Method 6C
NO <sub>x</sub>	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18 or 40 CFR 63, Appendix A, Method 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
CO <sub>2</sub>	1 hour	40 CFR 60, Appendix A, Method 3
CH <sub>4</sub>	1 hour	40 CFR 60, Appendix A, Method 18
N <sub>2</sub> O	1 hour	40 CFR 60, Appendix A, Method 320
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

## **12. Compliance Demonstration(s) (continued)**

Per 567 IAC 25.1(7)"a", at the Department's request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

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## **13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability**

This emission unit is not subject to any New Source Performance Standard or National Emission Standards for Hazardous Air Pollutants (NESHAP) at this time. There are no applicable subparts at this time.

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## **14. Operating Limits**

Operating limits for this emission unit shall be:

- A. The differential pressure drop across Baghouse (CE1234-2) shall be maintained between 0.3 and 6 inches water column while the equipment is in operation.
  - B. The owner or operator shall properly operate and maintain equipment to monitor the differential pressure drop across the Baghouse (CE1234-2). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
  - C. The owner or operator shall develop an operating and maintenance plan for the Baghouse (CE1234-2) including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
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### 15. Operating Condition Monitoring and Recordkeeping

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. The owner or operator shall collect and record the pressure drop across the Baghouse (CE1234-2), in inches of water, on a continuous basis. If the pressure drop across Baghouse (CE1234-2) falls outside the range specified in Condition 14a, the owner or operator shall investigate Baghouse (CE1234-2) and make corrections to Baghouse (CE2436-3). The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that Baghouse (CE1234-2) is not in operation.
- B. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Baghouse (CE1234-2).

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### 16. Continuous Emission Monitoring

Continuous emission monitoring is not required by this permit at this time.

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### 17. Permit History

Permit No.	Project No.	Description	Date	Stack Testing
90-A-111	90-082	Original Permit	08/30/90	Yes

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## 18. Description of Terms and Acronyms

*The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.*

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
PM <sub>2.5</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM <sub>10</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm <sub>v</sub>	parts per million by volume
ppm <sub>w</sub>	parts per million by weight
RACT	Reasonable Available Control Technology
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

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**END OF PERMIT**

# Iowa Department of Natural Resources

## Air Quality Construction Permit

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### Permit Holder

**Firm:** Grain Processing Corporation

**Contact:**

Mick Durham  
Director of Environmental Services

(563) 264-4569

1600 Oregon Street  
Muscatine, IA 52761

**Responsible Party:**

Ron Zitzow  
Senior Vice President

1600 Oregon Street  
Muscatine, IA 52761

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### Permitted Equipment

**Emission Unit(s):** GP2 - #4 Gluten Pre-Mill Cooling System (EU1245.0) and Gluten Mill (EU1246.0)

Maximum Nameplate Capacity: 6.13 tons of dried gluten per hour

Maximum Process Design Capacity: 5.0 tons of dried gluten per hour

**Control Equipment:** GP2, Product Baghouse (CE1245-1)

**Emission Point:** EP174.0

**Equipment Location:** 1600 Oregon Street  
Muscatine, IA 52761

**Plant Number:** 70-01-004

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Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Proj. No.	Description	Date	Stack Testing
91-A-068-S2	15-050	Modify PM, PM <sub>10</sub> Emission Limits; add PM <sub>2.5</sub> , SO <sub>2</sub> and VOC Emission Limits	12/10/15	Yes



Under the Direction of the Director of  
the Department of Natural Resources

## PERMIT CONDITIONS

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### 1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

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### 2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) "*Maintenance and Repair*".

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### 3. Transferability

As limited by 567 IAC 22.3(3)"F", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment<sup>1</sup> (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

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<sup>1</sup> A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

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### 4. Construction

#### A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

#### 4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:

- (1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
- (2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
- (3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

#### B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:

- (1) Any changes are made to the final plans and specifications submitted for the proposed project; or
- (2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

#### C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:

- (1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
- (2) This current amendment becomes void.

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### 5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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### 6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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## 7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to \$10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

## 8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:

- (1) Per 567 IAC 22.3(3)"b":
  - (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
  - (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
- (2) Per 567 IAC 22.3(3)"f", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
  - (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
  - (b) at least seven (7) days before equipment relocation.
- (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324

and include the following information:

- The date of ownership change,
  - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
  - The construction permit number(s) of the equipment changing ownership.
- (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
- the time,
  - the place,
  - the name of the person who will conduct the tests,
  - and other information as required by the Department;

If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:

- (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
- (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
- (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
- (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.

**8. Notification, Reporting, and Recordkeeping (Continued)**

- (5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;
- C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)
- D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9549  
Fax: (515) 725-9501

- E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9545  
Fax: (515) 725-9502

- F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	DNR Field Office 6 1023 West Madison Washington, IA 52353-1623 Telephone: (319) 653-2135 Fax: (319) 653-2856
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**9. Appeal Rights**

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

Director Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319
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## 10. Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr <sup>1</sup>	tons/yr <sup>2</sup>	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	0.41 <sup>3</sup>	NA	0.1 gr/dscf	23.4(7)
PM <sub>10</sub>	0.41 <sup>3,4</sup>	NA	NA	NAAQS
PM <sub>2.5</sub>	0.150 <sup>5</sup>	NA	NA	NAAQS
Opacity	NA	NA	40% <sup>6,7</sup>	23.3(2) <sup>”d”</sup>
Sulfur Dioxide (SO <sub>2</sub> )	0.37 <sup>8</sup>	NA	10.0 ppm <sub>v,d</sub> <sup>9</sup>	RACT
Nitrogen Oxides (NO <sub>x</sub> )	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	15.0 ppm <sub>v,d</sub> <sup>9</sup>	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

<sup>1</sup> The emission limit is expressed as the average of three (3) runs.

<sup>2</sup> The emission limit is a twelve (12) month rolling total.

<sup>3</sup> Requested emission limits maintain project 90-257 below PSD significant rates for PM and PM<sub>10</sub>. Project 90-257 netted out of review for PM and PM<sub>10</sub> using credits obtained from the shutdown of several streets in December of 1990. Any future projects that reevaluate the netting for this time period will require the facility to submit a model examining the equivalency of the increased stack emissions to the credited road closure emissions.

<sup>4</sup> The limit for PM<sub>10</sub> emissions is established to correspond to the emission rate used in the dispersion modeling required by the consent decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV016788, Iowa District Court in and for Muscatine County (July 17, 2006)].

<sup>5</sup> The limit for PM<sub>2.5</sub> emissions is established to address the “Finding of Substantial Inadequacy of Implementation Plan; Call for Iowa SIP Revision” for PM<sub>2.5</sub> published in the Federal Register (76 FR 9706) on February 22, 2011.

<sup>6</sup> The emission limit is a six (6) minute average.

<sup>7</sup> An exceedance of the indicator opacity of no visible emissions will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).

<sup>8</sup> The SO<sub>2</sub> limit is established to address the nonattainment designation for a portion of Muscatine County published in the Federal Register (78 FR 47191) on August 5, 2013. The nonattainment designation is for the 1-hour SO<sub>2</sub> primary national ambient air quality standard promulgated by EPA in 2010 (75 FR 35519, June 22, 2010).

<sup>9</sup> The limit for SO<sub>2</sub> and VOC emissions as required by the consent order, judgment, and decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV020979, Iowa District Court for Muscatine County (March 27, 2014)].

## 11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	82 Feet
Discharge Style	Vertical, unobstructed
Stack Opening (inches)	18 inches
Exhaust Temperature (°F)	115 °F
Exhaust Flowrate (scfm)	8295 scfm

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.



**12. Compliance Demonstration(s)**

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	NA	NA
PM – State	No	NA	NA
PM <sub>10</sub>	No	NA	NA
PM <sub>2.5</sub>	No	NA	NA
Opacity	No	NA	NA
SO <sub>2</sub>	Yes	Performance Testing	One Time
NO <sub>x</sub>	No	NA	NA
VOC	Yes	Performance Testing	One Time
CO	No	NA	NA
Pb	No	NA	NA
HAP	No	NA	NA

**If an initial compliance demonstration specified above is testing**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 no later than one hundred and eighty (180) days from the issuance date of this permit.

**If subsequent testing is specified above**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner’s authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM <sub>10</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
PM <sub>2.5</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO <sub>2</sub>	1 hour	40 CFR 60, Appendix A, Method 6C
NO <sub>x</sub>	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18 or 40 CFR 63, Appendix A, Method 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

Per 567 IAC 25.1(7)“a”, at the Department’s request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

## **12. Compliance Demonstration(s) (Continued)**

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

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## **13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability**

- A. This emission unit is not subject to the New Source Performance Standards (NSPS) as there are no subparts for this source category.
  - B. This emission unit is not subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) as there are no subparts for this source category at this time.
- 

## **14. Operating Limits**

Operating limits for this emission unit shall be:

- A. The baghouse's (CE1245-1) differential pressure drop shall be maintained between 0.1 and 10 inches water column.
  - B. The owner or operator shall properly operate and maintain equipment to monitor the differential pressure drop across the baghouse (CE1245-1). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
  - C. The owner or operator shall develop an operating and maintenance plan for the baghouse, including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
- 

## **15. Operating Condition Monitoring and Recordkeeping**

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. The owner or operator shall collect and record the pressure drop across the baghouse (CE1245-1), in inches of water, at least once per day. If the pressure drop across the baghouse (CE1245-1) falls outside the range specified in Condition 14 A., the owner or operator shall investigate the baghouse (CE1245-1) and make corrections to it. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the baghouse (CE1245-1) is not in operation.
  - B. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the baghouse (CE1245-1).
-

**16. Continuous Emission Monitoring**

Continuous emission monitoring is not required by this permit at this time.

**17. Permit History**

Permit No.	Proj. No.	Description	Date	Stack Testing
91-A-068	90-257	Permit source	04/05/91	Yes
91-A-068-S1	05-697	Replace baghouse	12/22/05	No

**18. Description of Terms and Acronyms**

*The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.*

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
PM <sub>2.5</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM <sub>10</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm <sub>v</sub>	parts per million by volume
ppm <sub>w</sub>	parts per million by weight
RACT	Reasonably Available Control Technology
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

Grain Processing Corp.  
Muscatine, Iowa

#4 Gluten Pre-Mill Cooling (EP174.0)  
91-A-068-S2

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**END OF PERMIT**

# Iowa Department of Natural Resources

## Air Quality PSD Construction Permit

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### Permit Holder

**Firm:** Grain Processing Corporation

**Contact:**

Mick Durham  
Director of Environmental Services

563.264.4569

1600 Oregon Street  
Muscatine, IA 52761

**Responsible Party:**

Ron Zitzow  
Senior Vice President

1600 Oregon Street  
Muscatine, IA 52761

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### Permitted Equipment

**Emission Unit(s):** Power House- Boiler No.12 (EU5212.0)  
Maximum Heat Input: 359.6 MMBtu/hr, Natural Gas Only

**Control Equipment:** Low NOx Burner (CE5212.0)

**Emission Point:** EP177.0

**Equipment Location:** 1600 Oregon Street  
Muscatine, IA 52761

**Plant Number:** 70-01-004

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Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Project No.	Description	Date	Stack Testing
93-A-110-P1	15-050	Establish PM2.5 & SO2 Limit	12/10/15	Yes

Under the Direction of the Director of  
the Department of Natural Resources

## PERMIT CONDITIONS

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### 1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

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### 2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) "*Maintenance and Repair*".

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### 3. Transferability

As limited by 567 IAC 22.3(3)"f", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment<sup>1</sup> (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

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<sup>1</sup> A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

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### 4. Construction

#### A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

#### 4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:

- (1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
- (2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
- (3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

#### B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:

- (1) Any changes are made to the final plans and specifications submitted for the proposed project; or
- (2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

#### C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:

- (1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
- (2) This current amendment becomes void.

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### 5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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### 6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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## 7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to \$10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

## 8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:

- (1) Per 567 IAC 22.3(3)"b":
  - (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
  - (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
- (2) Per 567 IAC 22.3(3)"f", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
  - (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
  - (b) at least seven (7) days before equipment relocation.
- (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324

and include the following information:

- The date of ownership change,
  - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
  - The construction permit number(s) of the equipment changing ownership.
- (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
- the time,
  - the place,
  - the name of the person who will conduct the tests,
  - and other information as required by the Department;

If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:

- (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
- (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
- (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
- (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.



**8. Notification, Reporting, and Recordkeeping (Continued)**

- (5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;
- C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)
- D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9549  
Fax: (515) 725-9501

- E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9545  
Fax: (515) 725-9502

- F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	DNR Field Office 6 1023 West Madison Washington, IA 52353 Telephone: (319) 653-2135 Fax: (319) 653-2856
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**9. Appeal Rights**

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

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Director Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319
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## 10. Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr <sup>1</sup>	tons/yr <sup>2</sup>	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	2.68 <sup>3</sup>	NA	0.6 lbs/MMBtu <sup>1</sup>	23.3(2)"b"
PM <sub>10</sub>	2.68 <sup>4,5</sup>	NA	NA	NAAQS
PM <sub>2.5</sub>	1.50 <sup>6</sup>	NA	NA	NAAQS
Opacity	NA	NA	40% <sup>7,8</sup>	23.3(2)"d"
Sulfur Dioxide (SO <sub>2</sub> )	0.22 <sup>9</sup>	NA	NA	RACT
Nitrogen Oxides (NO <sub>x</sub> )	NA	294.5 <sup>10</sup>	0.20 lbs/MMBtu <sup>11,12</sup>	BACT, 23.1(2)"ccc"
Volatile Organic Compounds (VOC)	NA	NA	0.005 lbs/MMBtu <sup>1,13</sup>	NA
Carbon Monoxide (CO)	NA	NA	0.05 lbs/MMBtu <sup>1,13</sup>	NA
Lead (Pb)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

1. The emission limit is expressed as the average of three (3) runs.
2. The emission limit is a twelve (12) month rolling total.
3. Requested by facility to restrict potential emissions of PM.
4. The limit for PM<sub>10</sub> emissions is established to correspond to the emission rate used in the dispersion modeling required by the consent decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV016788, Iowa District Court in and for Muscatine County (July 17, 2006)].
5. PM<sub>10</sub> limit maintains PM10 emissions from project 92-144 below PSD significance level.
6. The limit for PM<sub>2.5</sub> emissions is established to address the "Finding of Substantial Inadequacy of Implementation Plan; Call for Iowa SIP Revision" for PM<sub>2.5</sub> published in the Federal Register (76 FR 9706) on February 22, 2011.
7. The emission limit is a six (6) minute average.
8. An exceedance of the indicator opacity of "No Visible Emissions" will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).
9. The SO<sub>2</sub> limit is established to address the nonattainment designation for a portion of Muscatine County published in the Federal Register (78 FR 47191) on August 5, 2013. The nonattainment designation is for the 1-hour SO<sub>2</sub> primary national ambient air quality standard promulgated by EPA in 2010 (75 FR 35519, June 22, 2010).]
10. NO<sub>x</sub> emission limit is based on a 30-day rolling average. The NO<sub>x</sub> emission limit applies at all times including startup, shutdown, or malfunction.
11. As specified in 40 CFR 60.44b(h), this standard applies at all times including startup, shutdown, or malfunction.
12. As specified in 40 CFR 60.44b(i), compliance with the emission limit is determined on a 30-day rolling average basis.
13. The limit for CO and VOC emissions as required by the consent order, judgment, and decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV020979, Iowa District Court for Muscatine County (March 27, 2014)].

**11. Emission Point Characteristics**

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	117 Feet
Discharge Style	Vertical Unobstructed Discharge
Stack Opening (inches, diameter)	72 inch Diameter
Exhaust Temperature (°F)	350 °F
Exhaust Flowrate (scfm)	97,400 scfm

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**12. Compliance Demonstration(s)**

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	Performance Testing	NA
PM – State	Yes	Performance Testing	One-Time
PM <sub>10</sub>	Yes <sup>1</sup>	Performance Testing	One-Time
PM <sub>2.5</sub>	Yes	Performance Testing	One-Time
Opacity	No	Performance Testing	One-Time
SO <sub>2</sub>	No	Performance Testing	NA
NO <sub>x</sub>	Yes	Continuous Emission Monitor (CEM)	Continuous
VOC	Yes	Performance Testing	One-Time
CO	Yes	Performance Testing	One-Time
Pb	No	Performance Testing	NA
HAP	No	Performance Testing	NA

<sup>1</sup> Performance testing may be conducted for total particulate matter to demonstrate compliance with PM<sub>10</sub> as specified in permit condition 10.

**If an initial compliance demonstration specified above is testing,** the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 within one hundred and twenty (120) days after permit issuance.

**If subsequent testing is specified above,** the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner’s authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

**12. Compliance Demonstration(s)** (continued)

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM <sub>10</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
PM <sub>2.5</sub>	2 hours	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO <sub>2</sub>	1 hour	40 CFR 60, Appendix A, Method 6C
NO <sub>x</sub>	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18 or 40 CFR 63, Appendix A, Method 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

Per 567 IAC 25.1(7)"a", at the Department's request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

**13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability**

- A. NSPS 40 CFR Part 60 §60.40b – 40 CFR §60.49b Subpart Db - *Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units*, applies to this emission unit. Subject to the General Provisions of 40 CFR Part 60 Subpart A (General Provisions, 40 CFR §60.1 – 40 CFR §60.19).
- B. Grain Processing Corporation is subject to the requirements/conditions of NSPS Subpart A- *General Provisions*.

For information only: This equipment is of the source category affected by the following federal regulation: 40 CFR Part 63 Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Major Sources.

#### 14. Operating Limits

- A. The owner or operator shall tune Low NOx Burner (CE5212.0) on an annual basis to maintain good combustion. The annual burner tune-up activity shall include at a minimum:
- Inspect the burner-Clean and replace any components, as necessary
  - Inspect the flame pattern and flame dimensions-Adjust the burner as necessary to optimize the flame pattern and dimensions. The adjustment should be consistent with manufacturer's specifications, if available.
  - Inspect the air-to fuel ratio control system-Ensure the control system is calibrated and functioning properly, if such a system is installed.
  - Optimize emissions of carbon dioxide- Optimize emissions consistent with the manufacturer's specifications, if available, and with any nitrogen oxide requirement to which unit may be subject.
  - Verify that emissions (carbon dioxide and nitrogen oxide) and oxygen levels in the exhaust have been optimized consistent per manufactures specifications.
- 

#### 15. Operating Condition Monitoring and Recordkeeping

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. The owner or operator shall maintain record on annual basis of the following:
- The completion date of Low NOx Burner (CE5212.0) tuning as specified in condition 14A,
  - Document that Low NOx Burner (CE5212.0) emissions (carbon dioxide and nitrogen oxide) and oxygen levels in the exhaust have been optimized consistent per manufactures specifications.
- B. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Low NOx Burner (CE5212.0).
- C. Per 40 CFR §60.49b(d), The owner or operator shall record and maintain records of the amounts of each fuel combusted in the Boiler 12 (EU 5212.0) system during each day and calculate the annual capacity factor on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month. The annual capacity factor is defined as the ratio between the actual heat input to a steam generating unit during a calendar year, and the potential heat input had it been operated for 8,760 hours during a calendar year at the maximum steady state design heat input capacity.
- D. The owner or operator shall comply with all reporting, notification, and recordkeeping requirements as specified 40 CFR Part 60 Subpart Db- *Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units*, specifically §60.49b.
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## 16. Continuous Emission Monitoring

The owner or operator shall demonstrate compliance with the nitrogen oxide emission limits (both NSPS and non-NSPS) through the use of a continuous emission monitoring system (CEMS). The owner or operator shall install, calibrate, maintain, and operate a CEMS for measuring nitrogen oxides emissions discharged from the emission point to the atmosphere. The CEM shall be installed, evaluated, operated and data collected to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 2 (PS2). Annual RATA certification shall verify CEMS measurement with all NO<sub>x</sub> emission limits as specified in condition 10. The specifications of 40 CFR 60, Appendix F (Quality Assurance/Quality Control) shall apply. Appendix F requirements shall be supplemented with a quarterly notice to the Department with the dates of the quarterly cylinder gas audits and annual relative accuracy test audit.

The 1-hour average NO<sub>x</sub> emission rates measured by the NO<sub>x</sub> CEM required by 40 CFR 60.48b(b) and required under 40 CFR 60.13(h) shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the average emissions rates under 40 CFR 60.44b. The 1-hour averages shall be calculated using the data points required under 40 CFR 60.13(h)(2).

Per 40 CFR 60.49b(f), when NO<sub>x</sub> emissions are not obtained because of CEMS breakdowns, repairs, calibration checks and zero and span adjustments, emission data shall be obtained by using standby monitoring systems, 40 CFR Part 60 Appendix A Method 7, 40 CFR Part 60 Appendix A Method 7A, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days.

The owner or operator shall demonstrate compliance with the NO<sub>x</sub> ton per year emission limit specified in condition 10 through the use of a continuous gas fuel flow sensor. The owner or operator shall install, calibrate, maintain, and operate a gas fuel flow sensor for calculating the 30-day rolling average emission rates of NO<sub>x</sub> discharged from the emission point to the atmosphere.

In accordance with 40 CFR Part 60 Subpart Db, the owner or operator shall install, calibrate, maintain, and operate a CEMS for measuring either the oxygen content or the carbon dioxide content of the flue gas discharged from the emission point to the atmosphere.

All continuous monitoring systems (CMS) required by this permit shall be operated and data recorded during all periods of operation of the Boiler 12 (EU5212.0) except for CMS breakdowns and repairs. Data shall be recorded during calibration checks, and zero and span adjustments

If requested by the Department, the owner/operator shall coordinate the quarterly cylinder gas audits with the Department to afford the Department the opportunity to observe these audits. The relative accuracy test audits shall be coordinated with the Department.

The procedures under 40 CFR §60.13 shall be followed for installation, evaluation, and operation of the CEMS.

The 1-hour average emission rates measured by the CEMS required by this permit shall be used to calculate compliance with the emission standards of this permit. At least 2 data points must be used to calculate each 1-hour average.

For each hour of missing emission data, the owner or operator shall substitute data by:

1. If the monitor data availability is equal to or greater than 95.0%, the owner or operator shall calculate substitute data by means of the automated data acquisition and handling system for each hour of each missing data period according to the following procedures:
  - a. For the missing data period less than or equal to 24 hours, substitute the average of the hourly concentrations recorded by a pollutant concentrations monitor for the hour before and the hour after the missing data period.
  - b. For missing data period greater than 24 hours, substitute the greater of:
    - i. The 90<sup>th</sup> percentile hourly concentration recorded by a pollutant concentration monitor during the previous 720 quality-assured monitor operating hours; or
    - ii. The average of the hourly concentrations recorded by a pollutant concentration monitor for the hour before and the hour after the missing data period.

**16. Continuous Emission Monitoring (continued)**

2. If the monitor data availability is greater than or equal to 90.0% but less than 95.0%, the owner or operator shall calculate substitute data by means of the automated data acquisition and handling system for each hour of each missing data period according to the following procedures:
  - a. For the missing data period less than or equal to 8 hours, substitute the average of the hourly concentrations recorded by a pollutant concentrations monitor for the hour before and the hour after the missing data period.
  - b. For missing data period greater than 8 hours, substitute the greater of:
    - i. The 95<sup>th</sup> percentile hourly concentration recorded by a pollutant concentration monitor during the previous 720 quality-assured monitor operating hours; or
    - ii. The average of the hourly concentrations recorded by a pollutant concentration monitor for the hour before and the hour after the missing data period.
3. If the monitor data availability is less than 90.0%, the owner or operator shall obtain actual emission data by an alternate testing or monitoring method that is approved by the Department.

**17. Permit History**

Permit No.	Project No.	Description	Date	Stack Testing
93-A-110	92-144	Original Permit	03/15/93	Yes

**18. Description of Terms and Acronyms**

*The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.*

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
BACT	Best Available Control Technology
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable

PM <sub>2.5</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM <sub>10</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm <sub>v</sub>	parts per million by volume
ppm <sub>w</sub>	parts per million by weight
RACT	Reasonable Available Control Technology
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

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**END OF PERMIT**



# Iowa Department of Natural Resources Air Quality Construction Permit

## Permit Holder

**Firm:** Grain Processing Corporation

**Contact:**

Mick Durham  
Director of Environmental Services

563.264.4569

1600 Oregon Street  
Muscatine, IA 52761

**Responsible Party:**

Ron Zitzow  
Senior Vice President

1600 Oregon Street  
Muscatine, IA 52761

## Permitted Equipment

**Emission Unit(s):** Gluten Surge Bin, Feed Loading Surge Bin, GP2 #1 Feed Truck Loadout (EU 1258.0)  
Maximum capacity: 11.25 tons of feed per hour

**Control Equipment:** Pulse Jet Baghouse (CE1258-1)-East Hood Baghouse

**Emission Point:** EP179.0

**Equipment Location:** 1600 Oregon Street  
Muscatine, IA 52761

**Plant Number:** 70-01-004

Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Project No.	Description	Date	Stack Testing
92-A-383-S2	15-051	Stack Height Increase, Establish PM <sub>2.5</sub> & SO <sub>2</sub> limit	07/06/15	Yes



Under the Direction of the Director of  
the Department of Natural Resources

## PERMIT CONDITIONS

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### 1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

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### 2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) "*Maintenance and Repair*".

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### 3. Transferability

As limited by 567 IAC 22.3(3)"F", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment<sup>1</sup> (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

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<sup>1</sup> A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

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### 4. Construction

#### A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

#### 4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are

specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:

- (1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
- (2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
- (3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

#### B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:

- (1) Any changes are made to the final plans and specifications submitted for the proposed project; or
- (2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

#### C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:

- (1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
- (2) This current amendment becomes void.

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## 5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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## 6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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## 7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to \$10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

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## 8. Notification, Reporting, and Recordkeeping

- A. The owner or operator shall furnish the Department the following written notifications:
- (1) Per 567 IAC 22.3(3)"b":
    - (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
    - (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
  - (2) Per 567 IAC 22.3(3)"f", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
    - (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
    - (b) at least seven (7) days before equipment relocation.
  - (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324

and include the following information:

- The date of ownership change,
  - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
  - The construction permit number(s) of the equipment changing ownership.
- (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
- the time,
  - the place,
  - the name of the person who will conduct the tests,
  - and other information as required by the Department;

If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

- B. The owner or operator shall furnish the Department with the following reports:
- (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
  - (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
  - (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
  - (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.

**8. Notification, Reporting, and Recordkeeping (Continued)**

- (5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;
- C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)
- D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9549  
Fax: (515) 725-9501

- E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9545  
Fax: (515) 725-9502

- F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	DNR Field Office 6 1023 West Madison Washington, IA 52353 Telephone: (319) 653-2135 Fax: (319) 653-2856
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**9. Appeal Rights**

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

Director Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319
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### 10. Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr <sup>1</sup>	tons/yr <sup>2</sup>	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	0.50 <sup>3</sup>	NA	0.1 gr/dscf	23.4(7)
PM <sub>10</sub>	0.50 <sup>3,4</sup>	NA	NA	NAAQS
PM <sub>2.5</sub>	0.15 <sup>5</sup>	NA	NA	NAAQS
Opacity	NA	NA	40% <sup>6,7</sup>	23.3(2)"d"
Sulfur Dioxide (SO <sub>2</sub> )	0.25 <sup>8</sup>	NA	5.0 ppm <sub>v,d</sub> <sup>1,9</sup>	RACT
Nitrogen Oxides (NO <sub>x</sub> )	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	3.0 ppm <sub>v,d</sub> <sup>1,9</sup>	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

1. The emission limit is expressed as the average of three (3) runs.
2. The emission limit is a twelve (12) month rolling total.
3. Limit maintains Project 92-120 as minor project for the purposes of PSD review.
4. The limit for PM<sub>10</sub> emissions is established to correspond to the emission rate used in the dispersion modeling required by the consent decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV016788, Iowa District Court in and for Muscatine County (July 17, 2006)].
5. The limit for PM<sub>2.5</sub> emissions is established to address the "Finding of Substantial Inadequacy of Implementation Plan; Call for Iowa SIP Revision" for PM<sub>2.5</sub> published in the Federal Register (76 FR 9706) on February 22, 2011.
6. The emission limit is a six (6) minute average.
7. An exceedance of the indicator opacity of "No Visible Emissions" will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).
8. The SO<sub>2</sub> limit is established to address the nonattainment designation for a portion of Muscatine County published in the Federal Register (78 FR 47191) on August 5, 2013. The nonattainment designation is for the 1-hour SO<sub>2</sub> primary national ambient air quality standard promulgated by EPA in 2010 (75 FR 35519, June 22, 2010).
9. The limits for SO<sub>2</sub> and VOC emissions as required by the consent order, judgment, and decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV020979, Iowa District Court for Muscatine County (March 27, 2014)].

### 11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	75 Feet
Discharge Style	Vertical Unobstructed Discharge
Stack Opening (inches, diameter)	30 inches Diameter
Exhaust Temperature (°F)	Ambient
Exhaust Flowrate (scfm)	14,500 scfm

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**12. Compliance Demonstration(s)**

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	Performance Testing	NA
PM – State	Yes <sup>(1)</sup>	Performance Testing	One Time
PM <sub>10</sub>	Yes <sup>(1)</sup>	Performance Testing	One Time
PM <sub>2.5</sub>	Yes <sup>(1)</sup>	Performance Testing	One Time
Opacity	Yes <sup>(1)</sup>	Performance Testing	One Time
SO <sub>2</sub>	Yes <sup>(1)</sup>	Performance Testing	One Time
NO <sub>x</sub>	No	NA	NA
VOC	Yes <sup>(1)</sup>	Performance Testing	One Time
CO	No	NA	NA
Pb	No	NA	NA
HAP	No	NA	NA

(1) Performance testing shall be conducted on GP2 #1 (EP179.0) or #2 (EP180.0) Feed Truck Loadout for PM, PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, VOC and visible observation. The performance testing results conducted on GP2 #1 (EP179.0) or #2 (EP180.0) Feed Truck Loadout shall be used to demonstrate compliance with emission limits specified in condition 10 of this permit.

**If an initial compliance demonstration specified above is testing**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 within 90 days after permit issuance.

**If subsequent testing is specified above**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner’s authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM <sub>10</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
PM <sub>2.5</sub>	2 hours	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO <sub>2</sub>	1 hour	40 CFR 60, Appendix A, Method 6C
NO <sub>x</sub>	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18 or 40 CFR 63, Appendix A, Method 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
CO <sub>2</sub>	1 hour	40 CFR 60, Appendix A, Method 3
CH <sub>4</sub>	1 hour	40 CFR 60, Appendix A, Method 18
N <sub>2</sub> O	1 hour	40 CFR 60, Appendix A, Method 320
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

## **12. Compliance Demonstration(s) (continued)**

Per 567 IAC 25.1(7)"a", at the Department's request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

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## **13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability**

This emission unit is not subject to any New Source Performance Standard or National Emission Standards for Hazardous Air Pollutants (NESHAP) at this time. There are no applicable subparts at this time.

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## **14. Operating Limits**

Operating limits for this emission unit shall be:

- A. The differential pressure drop across Baghouse (CE1258-1) shall be maintained between 0.3 and 6 inches water column while the equipment is in operation.
  - B. The owner or operator shall properly operate and maintain equipment to monitor the differential pressure drop across the Baghouse (CE1258-1). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
  - C. The owner or operator shall develop an operating and maintenance plan for the Baghouse (CE1258-1) including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
-



### 15. Operating Condition Monitoring and Recordkeeping

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. The owner or operator shall collect and record the pressure drop across the Baghouse (CE1258-1), in inches of water, on a daily basis. If the pressure drop across Baghouse (CE1258-1) falls outside the range specified in Condition 14a, the owner or operator shall investigate Baghouse (CE1258-1) and make corrections to Baghouse (CE1258-1). The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that Baghouse (CE1258-1) is not in operation.
- B. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Baghouse (CE1258-1).

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### 16. Continuous Emission Monitoring

Continuous emission monitoring is not required by this permit at this time.

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### 17. Permit History

Permit No.	Project No.	Description	Date	Stack Testing
92-A-383	92-120	Original Permit	06/19/92	Yes
92-A-383-S1	06-162	Change Air Flow Rate Due to Stack Test of August 2005 (formerly Animal Feed Mix Production)	07/20/06	No

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## 18. Description of Terms and Acronyms

*The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.*

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
PM <sub>2.5</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM <sub>10</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm <sub>v</sub>	parts per million by volume
ppm <sub>w</sub>	parts per million by weight
RACT	Reasonable Available Control Technology
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

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**END OF PERMIT**

# Iowa Department of Natural Resources

## Air Quality Construction Permit

### Permit Holder

**Firm:** Grain Processing Corporation

**Contact:**

Mick Durham  
Director of Environmental Services

563.264.4569

1600 Oregon Street  
Muscatine, IA 52761

**Responsible Party:**

Ron Zitzow  
Senior Vice President

1600 Oregon Street  
Muscatine, IA 52761

### Permitted Equipment

**Emission Unit(s):** Gluten Surge Bin, Feed Loading Surge Bin, GP2 #2 Feed Truck Loadout (EU 1259.0)  
Maximum capacity: 11.25 tons of feed per hour

**Control Equipment:** Pulse Jet Baghouse (CE1259-1)-West Hood Baghouse

**Emission Point:** EP180.0

**Equipment Location:** 1600 Oregon Street  
Muscatine, IA 52761

**Plant Number:** 70-01-004

Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Project No.	Description	Date	Stack Testing
92-A-385-S1	15-051	Stack Height Increase, Establish PM <sub>2.5</sub> & SO <sub>2</sub> limit	07/06/15	Yes

Under the Direction of the Director of  
the Department of Natural Resources

## PERMIT CONDITIONS

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### 1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

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### 2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) "*Maintenance and Repair*".

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### 3. Transferability

As limited by 567 IAC 22.3(3)"f", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment<sup>1</sup> (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

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<sup>1</sup> A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

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### 4. Construction

#### A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

#### 4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are

specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:

- (1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
- (2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
- (3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

#### B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:

- (1) Any changes are made to the final plans and specifications submitted for the proposed project; or
- (2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

#### C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:

- (1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
- (2) This current amendment becomes void.

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### 5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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### 6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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### 7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to \$10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

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## 8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:

- (1) Per 567 IAC 22.3(3)"b":
  - (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
  - (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
- (2) Per 567 IAC 22.3(3)"f", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
  - (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
  - (b) at least seven (7) days before equipment relocation.
- (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324

and include the following information:

- The date of ownership change,
  - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
  - The construction permit number(s) of the equipment changing ownership.
- (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
- the time,
  - the place,
  - the name of the person who will conduct the tests,
  - and other information as required by the Department;

If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:

- (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
- (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
- (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
- (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.

**8. Notification, Reporting, and Recordkeeping (Continued)**

- (5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;
- C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)
- D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9549  
Fax: (515) 725-9501

- E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9545  
Fax: (515) 725-9502

- F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	DNR Field Office 6 1023 West Madison Washington, IA 52353 Telephone: (319) 653-2135 Fax: (319) 653-2856
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**9. Appeal Rights**

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

Director Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319
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### 10. Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr <sup>1</sup>	tons/yr <sup>2</sup>	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	0.50 <sup>3</sup>	NA	0.1 gr/dscf	23.4(7)
PM <sub>10</sub>	0.50 <sup>3,4</sup>	NA	NA	NAAQS
PM <sub>2.5</sub>	0.15 <sup>5</sup>	NA	NA	NAAQS
Opacity	NA	NA	40% <sup>6,7</sup>	23.3(2)"d"
Sulfur Dioxide (SO <sub>2</sub> )	0.25 <sup>8</sup>	NA	5.0 ppm <sub>v,d</sub> <sup>1,9</sup>	RACT
Nitrogen Oxides (NO <sub>x</sub> )	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	3.0 ppm <sub>v,d</sub> <sup>1,9</sup>	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

- The emission limit is expressed as the average of three (3) runs.
- The emission limit is a twelve (12) month rolling total.
- Limit maintains Project 92-120 as minor project for the purposes of PSD review.
- The limit for PM<sub>10</sub> emissions is established to correspond to the emission rate used in the dispersion modeling required by the consent decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV016788, Iowa District Court in and for Muscatine County (July 17, 2006)].
- The limit for PM<sub>2.5</sub> emissions is established to address the "Finding of Substantial Inadequacy of Implementation Plan; Call for Iowa SIP Revision" for PM<sub>2.5</sub> published in the Federal Register (76 FR 9706) on February 22, 2011.
- The emission limit is a six (6) minute average.
- An exceedance of the indicator opacity of "No Visible Emissions" will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).
- The SO<sub>2</sub> limit is established to address the nonattainment designation for a portion of Muscatine County published in the Federal Register (78 FR 47191) on August 5, 2013. The nonattainment designation is for the 1-hour SO<sub>2</sub> primary national ambient air quality standard promulgated by EPA in 2010 (75 FR 35519, June 22, 2010).
- The limits for SO<sub>2</sub> and VOC emissions as required by the consent order, judgment, and decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV020979, Iowa District Court for Muscatine County (March 27, 2014)].

### 11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	75 Feet
Discharge Style	Vertical Unobstructed Discharge
Stack Opening (inches, diameter)	30 inches Diameter
Exhaust Temperature (°F)	Ambient
Exhaust Flowrate (scfm)	14,500 scfm

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.



**12. Compliance Demonstration(s)**

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	Performance Testing	NA
PM – State	Yes <sup>(1)</sup>	Performance Testing	One Time
PM <sub>10</sub>	Yes <sup>(1)</sup>	Performance Testing	One Time
PM <sub>2.5</sub>	Yes <sup>(1)</sup>	Performance Testing	One Time
Opacity	Yes <sup>(1)</sup>	Performance Testing	One Time
SO <sub>2</sub>	Yes <sup>(1)</sup>	Performance Testing	One Time
NO <sub>x</sub>	No	NA	NA
VOC	Yes <sup>(1)</sup>	Performance Testing	One Time
CO	No	NA	NA
Pb	No	NA	NA
HAP	No	NA	NA

(1) Performance testing shall be conducted on GP2 #1 (EP179.0) or #2 (EP180.0) Feed Truck Loadout for PM, PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, VOC and visible observation. The performance testing results conducted on GP2 #1 (EP179.0) or #2 (EP180.0) Feed Truck Loadout shall be used to demonstrate compliance with emission limits specified in condition 10 of this permit.

**If an initial compliance demonstration specified above is testing**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 within 90 days after permit issuance.

**If subsequent testing is specified above**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner’s authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM <sub>10</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
PM <sub>2.5</sub>	2 hours	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO <sub>2</sub>	1 hour	40 CFR 60, Appendix A, Method 6C
NO <sub>x</sub>	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18 or 40 CFR 63, Appendix A, Method 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
CO <sub>2</sub>	1 hour	40 CFR 60, Appendix A, Method 3
CH <sub>4</sub>	1 hour	40 CFR 60, Appendix A, Method 18
N <sub>2</sub> O	1 hour	40 CFR 60, Appendix A, Method 320
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

## **12. Compliance Demonstration(s) (continued)**

Per 567 IAC 25.1(7)"a", at the Department's request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

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## **13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability**

This emission unit is not subject to any New Source Performance Standard or National Emission Standards for Hazardous Air Pollutants (NESHAP) at this time. There are no applicable subparts at this time.

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## **14. Operating Limits**

Operating limits for this emission unit shall be:

- A. The differential pressure drop across Baghouse (CE1259-1) shall be maintained between 0.3 and 6 inches water column while the equipment is in operation.
  - B. The owner or operator shall properly operate and maintain equipment to monitor the differential pressure drop across the Baghouse (CE1259-1). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
  - C. The owner or operator shall develop an operating and maintenance plan for the Baghouse (CE1259-1) including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
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### 15. Operating Condition Monitoring and Recordkeeping

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. The owner or operator shall collect and record the pressure drop across the Baghouse (CE1259-1), in inches of water, on a daily basis. If the pressure drop across Baghouse (CE1259-1) falls outside the range specified in Condition 14a, the owner or operator shall investigate Baghouse (CE1259-1) and make corrections to Baghouse (CE1259-1). The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that Baghouse (CE1259-1) is not in operation.
- B. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Baghouse (CE1259-1).

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### 16. Continuous Emission Monitoring

Continuous emission monitoring is not required by this permit at this time.

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### 17. Permit History

Permit No.	Project No.	Description	Date	Stack Testing
92-A-385	92-120	Original Permit	06/19/92	Yes

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## 18. Description of Terms and Acronyms

*The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.*

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
PM <sub>2.5</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM <sub>10</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm <sub>v</sub>	parts per million by volume
ppm <sub>w</sub>	parts per million by weight
RACT	Reasonable Available Control Technology
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

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**END OF PERMIT**

# Iowa Department of Natural Resources

## Air Quality Construction Permit

### Permit Holder

**Firm:** Grain Processing Corporation

**Contact:**

Mick Durham  
Director of Environmental Services

(563) 264-4569

1600 Oregon Street  
Muscatine, IA 52761

**Responsible Party:**

Ron Zitzow  
Senior Vice President

### Permitted Equipment

**Emission Unit(s):** Maltrin #6 Spray Dryer (EU3116.0)  
Maltrin #6 Spray Dryer Direct-Fired Burner (EU3116.1)  
Maximum Dryer Feed Rate: 8.96 tons of maltrin per hour, dry solids basis  
Maximum Natural Gas Firing Rate: 44 MMBtu/hr

**Control Equipment:** Product Recovery Cyclones, Packed Bed Scrubber (CE31116-1)

**Emission Point:** EP186.0

**Equipment Location:** 1600 Oregon Street  
Muscatine, IA 52761

**Plant Number:** 70-01-004

Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Project No.	Description	Date	Stack Testing
94-A-055-S1	15-050	Increase Stack Height, Modify PM Emission Limit, Add PM <sub>2.5</sub> , SO <sub>2</sub> and VOC Emission Limits.	12/10/15	Yes



Under the Direction of the Director of  
the Department of Natural Resources

## PERMIT CONDITIONS

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### 1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

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### 2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) "*Maintenance and Repair*".

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### 3. Transferability

As limited by 567 IAC 22.3(3)"P", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment<sup>1</sup> (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

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<sup>1</sup> A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

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### 4. Construction

#### A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

#### 4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:

- (1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
- (2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
- (3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

#### B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:

- (1) Any changes are made to the final plans and specifications submitted for the proposed project; or
- (2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

#### C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:

- (1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
- (2) This current amendment becomes void.

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### 5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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### 6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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## 7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to \$10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

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## 8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:

- (1) Per 567 IAC 22.3(3)"b":
  - (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
  - (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
- (2) Per 567 IAC 22.3(3)"f", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
  - (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
  - (b) at least seven (7) days before equipment relocation.
- (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324

and include the following information:

- The date of ownership change,
  - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
  - The construction permit number(s) of the equipment changing ownership.
- (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
    - the time,
    - the place,
    - the name of the person who will conduct the tests,
    - and other information as required by the Department;

If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:

- (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
- (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
- (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
- (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.



**8. Notification, Reporting, and Recordkeeping (Continued)**

(5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;

C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)

D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9549  
Fax: (515) 725-9501

E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9545  
Fax: (515) 725-9502

F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	DNR Field Office 6 1023 West Madison Washington, IA 52353 Telephone: (319) 653-2135 Fax: (319) 653-2856
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**9. Appeal Rights**

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

Director Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319
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## 10. Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr <sup>1</sup>	tons/yr <sup>2</sup>	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	1.76 <sup>3</sup>	NA	0.1 gr/dscf	23.4(7)
PM <sub>10</sub>	1.76 <sup>3,4</sup>	NA	NA	NAAQS
PM <sub>2.5</sub>	0.663 <sup>5</sup>	NA	NA	NAAQS
Opacity	NA	NA	40% <sup>6,7</sup>	23.3(2)"d"
Sulfur Dioxide (SO <sub>2</sub> )	0.027 <sup>8,9</sup>	NA	500 ppm <sub>v</sub>	RACT, 23.3(3)"e"
Nitrogen Oxides (NO <sub>x</sub> )	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	9.2 ppm <sub>v,d</sub> <sup>10</sup>	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
Carbon Dioxide equivalents (CO <sub>2e</sub> )	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

1. The emission limit is expressed as the average of three (3) runs.
2. The emission limit is a twelve (12) month rolling total.
3. Requested emission limits maintain project 93-200 below PSD significant rates for PM and PM<sub>10</sub>. Project 93-200 netted out of review for PM and PM<sub>10</sub> using credits obtained from the paving of two roads at the facility in November of 1992. Any future projects that reevaluate the netting for this time period will require the facility to submit a model examining the equivalency of the increased stack emissions to the credited road closure emissions.
4. The limit for PM<sub>10</sub> emissions is established to correspond to the emission rate used in the dispersion modeling required by the consent decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV016788, Iowa District Court in and for Muscatine County (July 17, 2006)].
5. The limit for PM<sub>2.5</sub> emissions is established to address the "Finding of Substantial Inadequacy of Implementation Plan; Call for Iowa SIP Revision" for PM<sub>2.5</sub> published in the Federal Register (76 FR 9706) on February 22, 2011.
6. The emission limit is a six (6) minute average.
7. An exceedance of the indicator opacity of no visible emissions will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).
8. The SO<sub>2</sub> limit is established to address the nonattainment designation for a portion of Muscatine County published in the Federal Register (78 FR 47191) on August 5, 2013. The nonattainment designation is for the 1-hour SO<sub>2</sub> primary national ambient air quality standard promulgated by EPA in 2010 (75 FR 35519, June 22, 2010).
9. Combined emission limit for EP186.0 and EP187.0.
10. The limit for VOC emissions as required by the consent order, judgment, and decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV020979, Iowa District Court for Muscatine County (March 27, 2014)].

## 11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	147 Feet
Discharge Style	Vertical Unobstructed
Stack Opening (inches, diameter)	72 inches
Exhaust Temperature (°F)	117 °F
Exhaust Flowrate (scfm)	49,267 scfm

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**12. Compliance Demonstration(s)**

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	Performance Testing	NA
PM – State	Yes	Performance Testing	Once Every 3 Calendar Years <sup>1</sup>
PM <sub>10</sub>	Yes <sup>2</sup>	Performance Testing	Once Every 3 Calendar Years <sup>1</sup>
PM <sub>2.5</sub>	Yes <sup>3</sup>	Performance Testing	Once Every 3 Calendar Years <sup>1</sup>
Opacity	Yes	Performance Testing	Once Every 3 Calendar Years <sup>1</sup>
SO <sub>2</sub>	Yes <sup>4</sup>	Performance Testing	One Time
NO <sub>x</sub>	No	Performance Testing	NA
VOC	Yes	Performance Testing	One Time
CO	No	Performance Testing	NA
Pb	No	Performance Testing	NA
HAP	No	Performance Testing	NA

<sup>1</sup> After the initial performance test, performance testing for PM, PM<sub>10</sub>, PM<sub>2.5</sub> and opacity shall be conducted once every 3 calendar years. After completion of three consecutive performance tests that demonstrate compliance with the PM, PM<sub>10</sub>, and PM<sub>2.5</sub> emission limits in condition 10, the owner or operator may request to modify the performance testing frequency for PM, PM<sub>10</sub>, PM<sub>2.5</sub> and opacity.

<sup>2</sup> It is acceptable to test for PM and to assume that all PM emissions are PM<sub>10</sub> emissions.

<sup>3</sup> If performance testing using methods specified in 40 CFR Part 51, Appendix M, 201A with 202 are not performed due to high moisture content (stack saturation), the owner or operator shall demonstrate compliance with the PM<sub>2.5</sub> limit as specified in Condition 10 by using methods specified in 40 CFR Part 60, Appendix A, Method 5 and 40 CFR Part 51, Appendix M, Method 202. Using Method 5, the filterable PM<sub>2.5</sub> fraction shall be determined by conducting internal particle sizing of the dried maltodextrin product (immediately following the dryer) to determine the PM<sub>2.5</sub> fraction of the measured total filterable particulate. The entire condensable fraction, measured by using Method 202, shall be considered PM<sub>2.5</sub>.

<sup>4</sup> Testing for SO<sub>2</sub> shall be conducted on EP186.0 and EP187.0 simultaneously. The measured emissions shall be added together in order to demonstrate compliance with the hourly SO<sub>2</sub> emission limit in Condition 10.

**If an initial compliance demonstration specified above is testing**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 by no later than one hundred and twenty (120) days after the issuance date of the permit.

**If subsequent testing is specified above**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner’s authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM <sub>10</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
PM <sub>2.5</sub>	2 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO <sub>2</sub>	1 hour	40 CFR 60, Appendix A, Method 6C
NO <sub>x</sub>	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18 or 40 CFR 63, Appendix A, Method 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

## **12. Compliance Demonstration(s) (Continued)**

Per 567 IAC 25.1(7)"a)", at the Department's request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

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## **13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability**

This emission unit is not subject to any New Source Performance Standard or National Emission Standards for Hazardous Air Pollutants (NESHAP) at this time. There are no applicable subparts.

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## **14. Operating Limits**

Operating limits for this emission unit shall be:

- A. The total flowrate of the Packed Bed Scrubber's (CE3116-1) liquor shall be maintained at or above 900 gallons per minute.
- B. The differential pressure drop across the Packed Bed Scrubber (CE3116-1) shall be maintained between 1 and 8 inches water column.
- C. The owner or operator shall properly operate and maintain equipment to monitor the total liquor flow rate and the differential pressure drop across the Packed Bed Scrubber (CE3116-1). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
- D. The owner or operator shall develop an operating and maintenance plan for the Product Recovery Cyclones, including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
- E. The owner or operator shall develop an operating and maintenance plan for the Packed Bed Scrubber (CE3116-1), including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
- F. The owner or operator shall increase the stack height of EP186.0 from 137 feet to 147 feet above ground by September 1, 2016.

#### 14. Operating Limits (continued)

- G. The owner or operator shall tune burner (EU3116.1) on an annual basis to maintain good combustion. The annual burner tune-up activity shall include at a minimum:
- Inspect the burner-Clean and replace any components, as necessary
  - Inspect the flame pattern and flame dimensions-Adjust the burner as necessary to optimize the flame pattern and dimensions. The adjustment should be consistent with manufacturer's specifications, if available.
  - Inspect the air-to fuel ratio control system-Ensure the control system is calibrated and functioning properly, if such a system is installed.
  - Optimize emissions of carbon dioxide- Optimize emissions consistent with the manufacturer's specifications, if available, and with any nitrogen oxide requirement to which unit may be subject.
  - Verify that emissions (carbon dioxide and nitrogen oxide) and oxygen levels in the exhaust have been optimized consistent per manufactures specifications.
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#### 15. Operating Condition Monitoring and Recordkeeping

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. The owner or operator shall collect and record the total liquor flow rate to the Packed Bed Scrubber (CE3116-1), in gallons per minute, at least once per day. If the liquor flow rate to the Packed Bed Scrubber (CE3116-1) falls below the value specified in Condition 14 A., the owner or operator shall investigate the Packed Bed Scrubber (CE3116-1) and make corrections to it. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the Packed Bed Scrubber (CE3116-1) is not in operation.
- B. The owner or operator shall collect and record the pressure drop across the Packed Bed Scrubber (CE3116-1), in inches of water, at least once per day. If the pressure drop across the Packed Bed Scrubber (CE3116-1) falls outside the range specified in Condition 14 B., the owner or operator shall investigate the Packed Bed Scrubber (CE3116-1) and make corrections to it. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the Packed Bed Scrubber (CE3116-1) is not in operation.
- C. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Product Recovery Cyclones.
- D. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Packed Bed Scrubber (CE3116-1).
- E. The owner or operator shall maintain a record of the completion date that EP186.0 was raised from 137 feet to 147 feet above ground.
- F. The owner or operator shall maintain record on annual basis of the following:
- The completion date of burner (EU3116.1) tuning as specified in condition 14G,
  - Burner (EU3116.1) emissions (carbon dioxide and nitrogen oxide) and oxygen levels in the exhaust have been optimized consistent per manufactures specifications.
- G. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the burner (EU3116.1).
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#### 16. Continuous Emission Monitoring

Continuous emission monitoring is not required by this permit at this time.

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**17. Permit History**

Permit No.	Project No.	Description	Date	Stack Testing
94-A-055	93-200	Original Permit	01/26/94	Yes

**18. Description of Terms and Acronyms**

*The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.*

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
PM <sub>2.5</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM <sub>10</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm <sub>v</sub>	parts per million by volume
ppm <sub>w</sub>	parts per million by weight
RACT	Reasonably Available Control Technology
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

**END OF PERMIT**

# Iowa Department of Natural Resources

## Air Quality Construction Permit

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### Permit Holder

**Firm:** Grain Processing Corporation

**Contact:**

Mick Durham  
Director of Environmental Services  
  
(563) 264-4569

**Responsible Party:**

Ron Zitzow  
Senior Vice President

1600 Oregon Street  
Muscatine, IA 52761

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### Permitted Equipment

**Emission Unit(s):** Maltrin #6 Spray Dryer (EU3116.0)  
Maltrin #6 Spray Dryer Direct-Fired Burner (EU3116.1)  
Maximum Dryer Feed Rate: 8.96 tons of maltrin per hour, dry solids basis  
Maximum Natural Gas Firing Rate: 44 MMBtu/hr

**Control Equipment:** Product Recovery Cyclones and Product Recovery Baghouse (CE3116-3),  
Packed Bed Scrubber (CE3116-2)

**Emission Point:** EP187.0

**Equipment Location:** 1600 Oregon Street  
Muscatine, IA 52761

**Plant Number:** 70-01-004

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Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Project No.	Description	Date	Stack Testing
94-A-061-S1	15-050	Increase Stack Height, Modify PM Emission Limit and Add PM <sub>2.5</sub> , SO <sub>2</sub> and VOC Emission Limits.	12/10/15	Yes



Under the Direction of the Director of  
the Department of Natural Resources

## PERMIT CONDITIONS

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### 1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

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### 2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) "*Maintenance and Repair*".

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### 3. Transferability

As limited by 567 IAC 22.3(3)"f", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment<sup>1</sup> (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

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<sup>1</sup> A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

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### 4. Construction

#### A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.



#### 4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:

- (1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
- (2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
- (3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

#### B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:

- (1) Any changes are made to the final plans and specifications submitted for the proposed project; or
- (2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

#### C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:

- (1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
- (2) This current amendment becomes void.

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#### 5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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#### 6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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## 7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to \$10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

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## 8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:

- (1) Per 567 IAC 22.3(3)"b":
  - (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
  - (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
- (2) Per 567 IAC 22.3(3)"F", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
  - (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
  - (b) at least seven (7) days before equipment relocation.
- (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324

and include the following information:

- The date of ownership change,
  - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
  - The construction permit number(s) of the equipment changing ownership.
- (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
- the time,
  - the place,
  - the name of the person who will conduct the tests,
  - and other information as required by the Department;

If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:

- (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
- (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
- (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
- (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.

**8. Notification, Reporting, and Recordkeeping (Continued)**

(5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;

C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)

D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9549  
Fax: (515) 725-9501

E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9545  
Fax: (515) 725-9502

F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	DNR Field Office 6 1023 West Madison Washington, IA 52353 Telephone: (319) 653-2135 Fax: (319) 653-2856
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**9. Appeal Rights**

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

Director Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319
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### 10. Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr <sup>1</sup>	tons/yr <sup>2</sup>	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	1.76 <sup>3</sup>	NA	0.1 gr/dscf	23.4(7)
PM <sub>10</sub>	1.76 <sup>3,4</sup>	NA	NA	NAAQS
PM <sub>2.5</sub>	0.663 <sup>5</sup>	NA	NA	NAAQS
Opacity	NA	NA	40% <sup>6,7</sup>	23.3(2)"d"
Sulfur Dioxide (SO <sub>2</sub> )	0.027 <sup>8,9</sup>	NA	500 ppm <sub>v</sub>	RACT, 23.3(3)"e"
Nitrogen Oxides (NO <sub>x</sub> )	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	9.2 ppm <sub>v,d</sub> <sup>10</sup>	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

1. The emission limit is expressed as the average of three (3) runs.
2. The emission limit is a twelve (12) month rolling total.
3. Requested emission limits maintain project 93-200 below PSD significant rates for PM and PM<sub>10</sub>. Project 93-200 netted out of review for PM and PM<sub>10</sub> using credits obtained from the paving of two roads at the facility in November of 1992. Any future projects that reevaluate the netting for this time period will require the facility to submit a model examining the equivalency of the increased stack emissions to the credited road closure emissions.
4. The limit for PM<sub>10</sub> emissions is established to correspond to the emission rate used in the dispersion modeling required by the consent decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV016788, Iowa District Court in and for Muscatine County (July 17, 2006)].
5. The limit for PM<sub>2.5</sub> emissions is established to address the "Finding of Substantial Inadequacy of Implementation Plan; Call for Iowa SIP Revision" for PM<sub>2.5</sub> published in the Federal Register (76 FR 9706) on February 22, 2011.
6. The emission limit is a six (6) minute average.
7. An exceedance of the indicator opacity of no visible emissions will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).
8. The SO<sub>2</sub> limit is established to address the nonattainment designation for a portion of Muscatine County published in the Federal Register (78 FR 47191) on August 5, 2013. The nonattainment designation is for the 1-hour SO<sub>2</sub> primary national ambient air quality standard promulgated by EPA in 2010 (75 FR 35519, June 22, 2010).
9. Combined emission limit for EP186.0 and EP187.0.
10. The limit for VOC emissions as required by the consent order, judgment, and decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV020979, Iowa District Court for Muscatine County (March 27, 2014)].

### 11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	147 Feet
Discharge Style	Vertical Unobstructed
Stack Opening (inches, diameter)	72 inches
Exhaust Temperature (°F)	117 °F
Exhaust Flowrate (scfm)	49,267 scfm

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**12. Compliance Demonstration(s)**

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	Performance Testing	NA
PM – State	Yes	Performance Testing	Once Every 3 Calendar Years <sup>1</sup>
PM <sub>10</sub>	Yes <sup>2</sup>	Performance Testing	Once Every 3 Calendar Years <sup>1</sup>
PM <sub>2.5</sub>	Yes <sup>3</sup>	Performance Testing	Once Every 3 Calendar Years <sup>1</sup>
Opacity	Yes	Performance Testing	Once Every 3 Calendar Years <sup>1</sup>
SO <sub>2</sub>	Yes <sup>4</sup>	Performance Testing	One Time
NO <sub>x</sub>	No	Performance Testing	NA
VOC	Yes	Performance Testing	One Time
CO	No	Performance Testing	NA
Pb	No	Performance Testing	NA
HAP	No	Performance Testing	NA

<sup>1</sup> After the initial performance test, performance testing for PM, PM<sub>10</sub>, PM<sub>2.5</sub> and opacity shall be conducted once every 3 calendar years. After completion of three consecutive performance tests that demonstrate compliance with the PM, PM<sub>10</sub>, and PM<sub>2.5</sub> emission limits in condition 10, the owner or operator may request to modify the performance testing frequency for PM, PM<sub>10</sub>, PM<sub>2.5</sub> and opacity.

<sup>2</sup> It is acceptable to test for PM and to assume that all PM emissions are PM<sub>10</sub> emissions.

<sup>3</sup> If performance testing using methods specified in 40 CFR Part 51, Appendix M, 201A with 202 are not performed due to high moisture content (stack saturation), the owner or operator shall demonstrate compliance with the PM<sub>2.5</sub> limit as specified in Condition 10 by using methods specified in 40 CFR Part 60, Appendix A, Method 5 and 40 CFR Part 51, Appendix M, Method 202. Using Method 5, the filterable PM<sub>2.5</sub> fraction shall be determined by conducting internal particle sizing of the dried maltodextrin product (immediately following the dryer) to determine the PM<sub>2.5</sub> fraction of the measured total filterable particulate. The entire condensable fraction, measured by using Method 202, shall be considered PM<sub>2.5</sub>.

<sup>4</sup> Testing for SO<sub>2</sub> shall be conducted on EP186.0 and EP187.0 simultaneously. The measured emissions shall be added together in order to demonstrate compliance with the hourly SO<sub>2</sub> emission limit in Condition 10.

**If an initial compliance demonstration specified above is testing**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 by no later than one hundred and twenty (120) days after the issuance date of the permit.

**If subsequent testing is specified above**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner’s authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM <sub>10</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
PM <sub>2.5</sub>	2 hours	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO <sub>2</sub>	1 hour	40 CFR 60, Appendix A, Method 6C
NO <sub>x</sub>	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18 or 40 CFR 63, Appendix A, Method 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

## **12. Compliance Demonstration(s) (Continued)**

Per 567 IAC 25.1(7)"a", at the Department's request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

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## **13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability**

This emission unit is not subject to any New Source Performance Standard or National Emission Standards for Hazardous Air Pollutants (NESHAP) at this time. There are no applicable subparts.

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## **14. Operating Limits**

Operating limits for this emission unit shall be:

- A. The total flowrate of the Packed Bed Scrubber's (CE3116-2) liquor shall be maintained at or above 900 gallons per minute.
- B. The differential pressure drop across the Packed Bed Scrubber (CE3116-2) shall be maintained between 1 and 8 inches water column.
- C. The differential pressure drop across the Baghouse (CE3116-3) shall be maintained between 1 and 6 inches water column.
- D. The owner or operator shall properly operate and maintain equipment to monitor the total liquor flow rate and the differential pressure drop across the Packed Bed Scrubber (CE3116-2). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
- E. The owner or operator shall properly operate and maintain equipment to monitor the differential pressure drop across the Baghouse (CE3116-3). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
- F. The owner or operator shall develop an operating and maintenance plan for the Product Recovery Cyclones, including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
- G. The owner or operator shall develop an operating and maintenance plan for the Packed Bed Scrubber (CE3116-2), including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
- H. The owner or operator shall develop an operating and maintenance plan for the Baghouse (CE3116-3), including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
- I. The owner or operator shall increase the stack height of EP187.0 from 137 feet to 147 feet above ground by September 1, 2016.

#### 14. Operating Limits (continued)

- J. The owner or operator shall tune burner (EU3116.1) on an annual basis to maintain good combustion. The annual burner tune-up activity shall include at a minimum:
- Inspect the burner-Clean and replace any components, as necessary
  - Inspect the flame pattern and flame dimensions-Adjust the burner as necessary to optimize the flame pattern and dimensions. The adjustment should be consistent with manufacturer's specifications, if available.
  - Inspect the air-to fuel ratio control system-Ensure the control system is calibrated and functioning properly, if such a system is installed.
  - Optimize emissions of carbon dioxide- Optimize emissions consistent with the manufacturer's specifications, if available, and with any nitrogen oxide requirement to which unit may be subject.
  - Verify that emissions (carbon dioxide and nitrogen oxide) and oxygen levels in the exhaust have been optimized consistent per manufactures specifications.

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#### 15. Operating Condition Monitoring and Recordkeeping

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. The owner or operator shall collect and record the total liquor flow rate to the Packed Bed Scrubber (CE3116-2), in gallons per minute, at least once per day. If the liquor flow rate to the Packed Bed Scrubber (CE3116-2) falls below the value specified in Condition 14 A., the owner or operator shall investigate the Packed Bed Scrubber (CE3116-2) and make corrections to it. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the Packed Bed Scrubber (CE3116-2) is not in operation.
- B. The owner or operator shall collect and record the pressure drop across the Packed Bed Scrubber (CE3116-2), in inches of water, at least once per day. If the pressure drop across the Packed Bed Scrubber (CE3116-2) falls outside the range specified in Condition 14 B., the owner or operator shall investigate the Packed Bed Scrubber (CE3116-2) and make corrections to it. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the Packed Bed Scrubber (CE3116-2) is not in operation.
- C. The owner or operator shall collect and record the pressure drop across the Baghouse (CE3116-3), in inches of water, at least once per day. If the pressure drop across the Baghouse (CE3116-3) falls outside the range specified in Condition 14 C., the owner or operator shall investigate the Baghouse (CE3116-3) and make corrections to it. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the Baghouse (CE3116-3) is not in operation.
- D. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Product Recovery Cyclones.
- E. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Packed Bed Scrubber (CE3116-2).
- F. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Baghouse (CE3116-3).
- G. The owner or operator shall maintain a record of the completion date that EP187.0 was raised from 137 feet to 147 feet above ground.
- H. The owner or operator shall maintain record on annual basis of the following:
- The completion date of burner (EU3116.1) tuning as specified in condition 14J,
  - Burner (EU3116.1) emissions (carbon dioxide and nitrogen oxide) and oxygen levels in the exhaust have been optimized consistent per manufactures specifications.
- I. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the burner (EU3116.1).
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**16. Continuous Emission Monitoring**

Continuous emission monitoring is not required by this permit at this time.

**17. Permit History**

Permit No.	Project No.	Description	Date	Stack Testing
94-A-061	93-200	Original Permit	01/26/94	Yes

**18. Description of Terms and Acronyms**

*The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.*

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
PM <sub>2.5</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM <sub>10</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm <sub>v</sub>	parts per million by volume
ppm <sub>w</sub>	parts per million by weight
RACT	Reasonably Available Control Technology
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

**END OF PERMIT**



# Iowa Department of Natural Resources

## Air Quality Construction Permit

### Permit Holder

**Firm:** Grain Processing Corporation

**Contact:**

Mick Durham  
Director of Environmental Services

563.264.4569

1600 Oregon Street  
Muscatine, IA 52761

**Responsible Party:**

Ron Zitzow  
Senior Vice President

1600 Oregon Street  
Muscatine, IA 52761

### Permitted Equipment

**Emission Unit(s):** GP2 Gluten Loadout Peumatic Transport System (EU 1256.0)  
Maximum capacity: 32 tons of gluten per hour

**Control Equipment:** Pulse Jet Baghouse (CE1256-1)-East Gluten Receiver Baghouse

**Emission Point:** EP190A (also known as 190.1)

**Equipment Location:** 1600 Oregon Street  
Muscatine, IA 52761

**Plant Number:** 70-01-004

Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Project No.	Description	Date	Stack Testing
02-A-781-S2	15-051	Establish PM <sub>2.5</sub> & SO <sub>2</sub> limit	07/06/15	Yes

Under the Direction of the Director of  
the Department of Natural Resources

## PERMIT CONDITIONS

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### 1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

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### 2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) "*Maintenance and Repair*".

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### 3. Transferability

As limited by 567 IAC 22.3(3)'F', this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment<sup>1</sup> (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

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<sup>1</sup> A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

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### 4. Construction

#### A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

#### 4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are

specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:

- (1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
- (2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
- (3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

#### B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:

- (1) Any changes are made to the final plans and specifications submitted for the proposed project; or
- (2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

#### C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:

- (1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
- (2) This current amendment becomes void.

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### 5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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### 6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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### 7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to \$10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

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## 8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:

- (1) Per 567 IAC 22.3(3)"b":
  - (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
  - (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
- (2) Per 567 IAC 22.3(3)"f", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
  - (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
  - (b) at least seven (7) days before equipment relocation.
- (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324

and include the following information:

- The date of ownership change,
  - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
  - The construction permit number(s) of the equipment changing ownership.
- (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
- the time,
  - the place,
  - the name of the person who will conduct the tests,
  - and other information as required by the Department;

If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:

- (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
- (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
- (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
- (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.

**8. Notification, Reporting, and Recordkeeping (Continued)**

(5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;

C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)

D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor  
 Air Quality Bureau  
 Iowa Department of Natural Resources  
 7900 Hickman Road, Suite 1  
 Windsor Heights, IA 50324  
 Telephone: (515) 725-9549  
 Fax: (515) 725-9501

E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator  
 Air Quality Bureau  
 Iowa Department of Natural Resources  
 7900 Hickman Road, Suite 1  
 Windsor Heights, IA 50324  
 Telephone: (515) 725-9545  
 Fax: (515) 725-9502

F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	DNR Field Office 6 1023 West Madison Washington, IA 52353 Telephone: (319) 653-2135 Fax: (319) 653-2856
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**9. Appeal Rights**

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

Director Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319
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**10. Emission Limits**

The following emission limits shall not be exceeded:

Pollutant	lb/hr <sup>1</sup>	tons/yr <sup>2</sup>	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	0.11 <sup>3</sup>	NA	0.1 gr/dscf <sup>1</sup>	23.4(7)
PM <sub>10</sub>	0.11 <sup>3,4</sup>	NA	NA	NAAQS
PM <sub>2.5</sub>	0.021 <sup>5</sup>	NA	NA	NAAQS
Opacity	NA	NA	40% <sup>6,7</sup>	23.3(2)"d"
Sulfur Dioxide (SO <sub>2</sub> )	0.125 <sup>8</sup>	NA	5.0 ppm <sub>v,d</sub> <sup>1,9</sup>	RACT
Nitrogen Oxides (NO <sub>x</sub> )	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	3.0 ppm <sub>v,d</sub> <sup>1,9</sup>	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

1. The emission limit is expressed as the average of three (3) runs.
2. The emission limit is a twelve (12) month rolling total.
3. Limit maintains Projects 92-120 and 01-169 as minor projects for the purposes of PSD review.
4. The limit for PM<sub>10</sub> emissions is established to correspond to the emission rate used in the dispersion modeling required by the consent decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV016788, Iowa District Court in and for Muscatine County (July 17, 2006)].
5. The limit for PM<sub>2.5</sub> emissions is established to address the "Finding of Substantial Inadequacy of Implementation Plan; Call for Iowa SIP Revision" for PM<sub>2.5</sub> published in the Federal Register (76 FR 9706) on February 22, 2011.
6. The emission limit is a six (6) minute average.
7. An exceedance of the indicator opacity of "No Visible Emissions" will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).
8. The SO<sub>2</sub> limit is established to address the nonattainment designation for a portion of Muscatine County published in the Federal Register (78 FR 47191) on August 5, 2013. The nonattainment designation is for the 1-hour SO<sub>2</sub> primary national ambient air quality standard promulgated by EPA in 2010 (75 FR 35519, June 22, 2010).
9. The limits for SO<sub>2</sub> and VOC emissions as required by the consent order, judgment, and decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV020979, Iowa District Court for Muscatine County (March 27, 2014)].

**11. Emission Point Characteristics**

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	77 Feet
Discharge Style	Downward Discharge
Stack Opening (inches, diameter)	12 inches Diameter
Exhaust Temperature (°F)	80 °F
Exhaust Flowrate (scfm)	2600 scfm

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**12. Compliance Demonstration(s)**

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	Performance Testing	NA
PM – State	Yes	Performance Testing	One Time
PM <sub>10</sub>	Yes <sup>1</sup>	Performance Testing	One Time
PM <sub>2.5</sub>	Yes <sup>2</sup>	Performance Testing	One Time
Opacity	Yes	Performance Testing	One Time
SO <sub>2</sub>	Yes	Performance Testing	One Time
NO <sub>x</sub>	No	NA	NA
VOC	Yes	Performance Testing	One Time
CO	No	NA	NA
Pb	No	NA	NA
HAP	No	NA	NA

- (1) Performance testing may be conducted for total particulate matter to demonstrate compliance with PM<sub>10</sub> limit as specified in permit condition 10.
- (2) If method 40 CFR 51, Appendix M, 201A cannot be performed due to stack blockage then the owner operator shall add a temporary stack extension to perform method 40 CFR 51, Appendix M, 201A. The temporary stack extension shall conform to 40 CFR Part 60, Appendix A, Method 1.

**If an initial compliance demonstration specified above is testing**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 within 90 days after permit issuance.

**If subsequent testing is specified above**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner’s authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM <sub>10</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
PM <sub>2.5</sub>	3 hours	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO <sub>2</sub>	1 hour	40 CFR 60, Appendix A, Method 6C
NO <sub>x</sub>	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18 or 40 CFR 63, Appendix A, Method 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

**12. Compliance Demonstration(s) (continued)**

Per 567 IAC 25.1(7)"a", at the Department's request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

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**13. New Source Performance Standards (NSPS) and  
National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability**

This emission unit is not subject to any New Source Performance Standard or National Emission Standards for Hazardous Air Pollutants (NESHAP) at this time. There are no applicable subparts at this time.

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**14. Operating Limits**

Operating limits for this emission unit shall be:

- A. The differential pressure drop across Baghouse (CE1256-1) shall be maintained between 0.3 and 6 inches water column while the equipment is in operation.
  - B. The owner or operator shall properly operate and maintain equipment to monitor the differential pressure drop across the Baghouse (CE1256-1). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
  - C. The owner or operator shall develop an operating and maintenance plan for the Baghouse (CE1256-1) including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
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### 15. Operating Condition Monitoring and Recordkeeping

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. The owner or operator shall collect and record the pressure drop across the Baghouse (CE1256-1), in inches of water, on a daily basis. If the pressure drop across Baghouse (CE1256-1) falls outside the range specified in Condition 14a, the owner or operator shall investigate Baghouse (CE1256-1) and make corrections to Baghouse (CE1256-1). The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that Baghouse (CE1256-1) is not in operation.
- B. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Baghouse (CE1256-1).

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### 16. Continuous Emission Monitoring

Continuous emission monitoring is not required by this permit at this time.

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### 17. Permit History

Permit No.	Project No.	Description	Date	Stack Testing
02-A-781	01-169	"As-built" Permit	10/17/02	Yes
02-A-781-S1	11-297	Add PM <sub>10</sub> NAAQS Emission Limit and Modify Stack Characteristics	05/17/02	No

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**18. Description of Terms and Acronyms**

*The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.*

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
PM <sub>2.5</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM <sub>10</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm <sub>v</sub>	parts per million by volume
ppm <sub>w</sub>	parts per million by weight
RACT	Reasonable Available Control Technology
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

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**END OF PERMIT**

# Iowa Department of Natural Resources

## Air Quality Construction Permit

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### Permit Holder

**Firm:** Grain Processing Corporation

**Contact:**

Mick Durham  
Director of Environmental Services

563.264.4569

1600 Oregon Street  
Muscatine, IA 52761

**Responsible Party:**

Ron Zitzow  
Senior Vice President

1600 Oregon Street  
Muscatine, IA 52761

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### Permitted Equipment

**Emission Unit(s):** GP2 Gluten Truck Loadout Bin (EU 1257.0)  
Maximum capacity: 32 tons of gluten per hour

**Control Equipment:** Bin Vent Filter (CE1257-1)-East Gluten Receiver Bin Vent Dust Collector

**Emission Point:** EP190B (also known as 190.2)

**Equipment Location:** 1600 Oregon Street  
Muscatine, IA 52761

**Plant Number:** 70-01-004

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Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Project No.	Description	Date	Stack Testing
02-A-782-S2	15-051	Establish PM <sub>2.5</sub> & SO <sub>2</sub> limit	07/06/15	Yes



Under the Direction of the Director of  
the Department of Natural Resources

## PERMIT CONDITIONS

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### 1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

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### 2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) "*Maintenance and Repair*".

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### 3. Transferability

As limited by 567 IAC 22.3(3)"F", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment<sup>1</sup> (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

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<sup>1</sup> A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

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### 4. Construction

#### A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

#### 4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are

specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:

- (1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
- (2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
- (3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

#### B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:

- (1) Any changes are made to the final plans and specifications submitted for the proposed project; or
- (2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

#### C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:

- (1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
- (2) This current amendment becomes void.

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### 5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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### 6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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### 7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to \$10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

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## 8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:

- (1) Per 567 IAC 22.3(3)"b":
  - (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
  - (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
- (2) Per 567 IAC 22.3(3)"f", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
  - (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
  - (b) at least seven (7) days before equipment relocation.
- (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324

and include the following information:

- The date of ownership change,
  - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
  - The construction permit number(s) of the equipment changing ownership.
- (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
- the time,
  - the place,
  - the name of the person who will conduct the tests,
  - and other information as required by the Department;

If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:

- (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
- (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
- (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
- (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.

**8. Notification, Reporting, and Recordkeeping (Continued)**

(5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;

C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)

D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9549  
Fax: (515) 725-9501

E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9545  
Fax: (515) 725-9502

F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	DNR Field Office 6 1023 West Madison Washington, IA 52353 Telephone: (319) 653-2135 Fax: (319) 653-2856
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**9. Appeal Rights**

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

Director Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319
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### 10. Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr <sup>1</sup>	tons/yr <sup>2</sup>	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	0.009 <sup>3</sup>	NA	0.1 gr/dscf <sup>1</sup>	23.4(7)
PM <sub>10</sub>	0.009 <sup>3,4</sup>	NA	NA	NAAQS
PM <sub>2.5</sub>	0.002 <sup>5</sup>	NA	NA	NAAQS
Opacity	NA	NA	40% <sup>6,7</sup>	23.3(2)"d"
Sulfur Dioxide (SO <sub>2</sub> )	0.005 <sup>8</sup>	NA	5.0 ppm <sub>v,d</sub> <sup>1,9</sup>	RACT
Nitrogen Oxides (NO <sub>x</sub> )	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	3.0 ppm <sub>v,d</sub> <sup>1,9</sup>	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

- The emission limit is expressed as the average of three (3) runs.
- The emission limit is a twelve (12) month rolling total.
- Limit maintains Projects 92-120 and 01-169 as minor projects for the purposes of PSD review.
- The limit for PM<sub>10</sub> emissions is established to correspond to the emission rate used in the dispersion modeling required by the consent decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV016788, Iowa District Court in and for Muscatine County (July 17, 2006)].
- The limit for PM<sub>2.5</sub> emissions is established to address the "Finding of Substantial Inadequacy of Implementation Plan; Call for Iowa SIP Revision" for PM<sub>2.5</sub> published in the Federal Register (76 FR 9706) on February 22, 2011.
- The emission limit is a six (6) minute average.
- An exceedance of the indicator opacity of "No Visible Emissions" will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).
- The SO<sub>2</sub> limit is established to address the nonattainment designation for a portion of Muscatine County published in the Federal Register (78 FR 47191) on August 5, 2013. The nonattainment designation is for the 1-hour SO<sub>2</sub> primary national ambient air quality standard promulgated by EPA in 2010 (75 FR 35519, June 22, 2010).
- The limits for SO<sub>2</sub> and VOC emissions as required by the consent order, judgment, and decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV020979, Iowa District Court for Muscatine County (March 27, 2014)].

### 11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	77 Feet
Discharge Style	Horizontal Discharge
Stack Opening (inches, diameter)	6 inch Diameter
Exhaust Temperature (°F)	70 °F
Exhaust Flowrate (scfm)	100 scfm

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.



**12. Compliance Demonstration(s)**

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	NA	NA
PM – State	No	NA	NA
PM <sub>10</sub>	No	NA	NA
PM <sub>2.5</sub>	No	NA	NA
Opacity	Yes	Performance Testing	One Time
SO <sub>2</sub>	Yes <sup>(1)</sup>	Performance Testing	One Time
NO <sub>x</sub>	No	NA	NA
VOC	Yes <sup>(1)</sup>	Performance Testing	One Time
CO	No	NA	NA
Pb	No	NA	NA
HAP	No	NA	NA

- (1) Performance testing results conducted on Gluten Loadout Pneumatic Transport System (EP190A) for SO<sub>2</sub> and VOC measured concentrations shall be used to demonstrate compliance with VOC and SO<sub>2</sub> emission limits specified in condition 10 of this permit. If performance testing results conducted on EP190A demonstrate compliance with emission limits specified in condition 10 of this permit no further testing of EP190B is required at this time.

**If an initial compliance demonstration specified above is testing**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 within 90 days after permit issuance.

**If subsequent testing is specified above**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner’s authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM <sub>10</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
PM <sub>2.5</sub>	2 hours	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO <sub>2</sub>	1 hour	40 CFR 60, Appendix A, Method 6C
NO <sub>x</sub>	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18 or 40 CFR 63, Appendix A, Method 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

## **12. Compliance Demonstration(s) (continued)**

Per 567 IAC 25.1(7)"a", at the Department's request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

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## **13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability**

This emission unit is not subject to any New Source Performance Standard or National Emission Standards for Hazardous Air Pollutants (NESHAP) at this time. There are no applicable subparts at this time.

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## **14. Operating Limits**

Operating limits for this emission unit shall be:

- A. The owner or operator shall conduct visible emissions observation on emission point (EP190B) once per calendar day.
- B. The owner or operator shall develop an operating and maintenance plan for Bin Vent Filter (CE1257-1) including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.

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## **15. Operating Condition Monitoring and Recordkeeping**

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. If the owner or operator observes visible emissions from EP190B, the owner or operator shall investigate the emission unit or control equipment and make corrections to the associated operations or equipment. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that this emission unit is not in operation.
  - B. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Bin Vent Filter (CE1257-1).
-

**16. Continuous Emission Monitoring**

Continuous emission monitoring is not required by this permit at this time.

**17. Permit History**

Permit No.	Project No.	Description	Date	Stack Testing
02-A-781	01-169	"As-built" Permit	10/17/02	Yes
02-A-781-S1	11-297	Add PM <sub>10</sub> NAAQS Emission Limit and Modify Stack Characteristics	05/17/02	No

**18. Description of Terms and Acronyms**

*The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.*

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
PM <sub>2.5</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM <sub>10</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm <sub>v</sub>	parts per million by volume
ppm <sub>w</sub>	parts per million by weight
RACT	Reasonable Available Control Technology
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

Grain Processing Corporation  
Muscatine, Iowa

Gluten Truck Loadout Bin (EP190B)  
02-A-782-S2

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**END OF PERMIT**

# Iowa Department of Natural Resources

## Air Quality Construction Permit

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### Permit Holder

**Firm:** Grain Processing Corporation

**Contact:**

Mick Durham  
Director of Environmental Services

(563) 264-4569

1600 Oregon Street  
Muscatine, IA 52761

**Responsible Party:**

Ron Zitzow  
Senior Vice President

1600 Oregon Street  
Muscatine, IA 52761

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### Permitted Equipment

**Emission Unit(s):** Dryer House 4, Spent Germ Receiving (EU1262.0)  
Maximum capacity: 8.0 tons per hour of spent, undried germ

**Control Equipment:** Fabric Filter Baghouse (CE1262-1)

**Emission Point:** EP195.0

**Equipment Location:** 1600 Oregon Street  
Muscatine, IA 52761

**Plant Number:** 70-01-004

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Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Proj. No.	Description	Date	Stack Testing
09-A-482-S2	15-050	Add PM <sub>2.5</sub> and SO <sub>2</sub> emission limits	12/10/15	Yes



Under the Direction of the Director of  
the Department of Natural Resources

## PERMIT CONDITIONS

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### 1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

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### 2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) "*Maintenance and Repair*".

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### 3. Transferability

As limited by 567 IAC 22.3(3)"F", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment<sup>1</sup> (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

<sup>1</sup> A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

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### 4. Construction

#### A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

#### 4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:

- (1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
- (2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
- (3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

#### B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:

- (1) Any changes are made to the final plans and specifications submitted for the proposed project; or
- (2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

#### C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:

- (1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
- (2) This current amendment becomes void.

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### 5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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### 6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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## 7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to \$10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

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## 8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:

- (1) Per 567 IAC 22.3(3)"b":
  - (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
  - (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
- (2) Per 567 IAC 22.3(3)"P", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
  - (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
  - (b) at least seven (7) days before equipment relocation.
- (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324

and include the following information:

- The date of ownership change,
  - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
  - The construction permit number(s) of the equipment changing ownership.
- (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
- the time,
  - the place,
  - the name of the person who will conduct the tests,
  - and other information as required by the Department;

If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:

- (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
- (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
- (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
- (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.



**8. Notification, Reporting, and Recordkeeping (Continued)**

(5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;

C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)

D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9549  
Fax: (515) 725-9501

E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9545  
Fax: (515) 725-9502

F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	DNR Field Office 6 1023 West Madison Washington, IA 52353-1623 Telephone: (319) 653-2135 Fax: (319) 653-2856
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**9. Appeal Rights**

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

Director Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319
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## 10. Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr <sup>1</sup>	tons/yr <sup>2</sup>	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	0.10 <sup>3</sup>	NA	0.1 gr/dscf	23.4(7)
PM <sub>10</sub>	0.10 <sup>4</sup>	NA	NA	NAAQS
PM <sub>2.5</sub>	0.028 <sup>5</sup>	NA	NA	NAAQS
Opacity	NA	NA	40% <sup>6, 7</sup>	23.3(2)"d"
Sulfur Dioxide (SO <sub>2</sub> )	0.012 <sup>8</sup>	NA	500 ppm <sub>v</sub>	RACT and 23.3(3)"e"
Nitrogen Oxides (NO <sub>x</sub> )	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	NA	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

<sup>1</sup> The emission limit is expressed as the average of three (3) runs.

<sup>2</sup> The emission limit is a twelve (12) month rolling total.

<sup>3</sup> Requested by facility in project 09-281 to restrict potential emissions of PM.

<sup>4</sup> The limit for PM<sub>10</sub> emissions is established to correspond to the emission rate used in the dispersion modeling required by the consent decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV016788, Iowa District Court in and for Muscatine County (July 17, 2006)].

<sup>5</sup> The limit for PM<sub>2.5</sub> emissions is established to address the "Finding of Substantial Inadequacy of Implementation Plan; Call for Iowa SIP Revision" for PM<sub>2.5</sub> published in the Federal Register (76 FR 9706) on February 22, 2011.

<sup>6</sup> The emission limit is a six (6) minute average.

<sup>7</sup> An exceedance of the indicator opacity of no visible emissions will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).

<sup>8</sup> The SO<sub>2</sub> limit is established to address the nonattainment designation for a portion of Muscatine County published in the Federal Register (78 FR 47191) on August 5, 2013. The nonattainment designation is for the 1-hour SO<sub>2</sub> primary national ambient air quality standard promulgated by EPA in 2010 (75 FR 35519, June 22, 2010).

## 11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	66.5 Feet
Discharge Style	Vertical, unobstructed
Stack Opening (inches)	12 inches
Exhaust Temperature (°F)	120°F
Exhaust Flowrate (scfm)	1200 scfm

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**12. Compliance Demonstration(s)**

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	NA	NA
PM – State	No	NA	NA
PM <sub>10</sub>	No	NA	NA
PM <sub>2.5</sub>	No	NA	NA
Opacity	No	NA	NA
SO <sub>2</sub>	Yes	Stack Test	One Time
NO <sub>x</sub>	No	NA	NA
VOC	No	NA	NA
CO	No	NA	NA
Pb	No	NA	NA
HAP	No	NA	NA

**If an initial compliance demonstration specified above is testing**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 no later than one hundred and twenty (120) days after the issuance date of this permit.

**If subsequent testing is specified above**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner’s authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM <sub>10</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
PM <sub>2.5</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO <sub>2</sub>	1 hour	40 CFR 60, Appendix A, Method 6C
NO <sub>x</sub>	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18 or 40 CFR 63, Appendix A, Method 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

Per 567 IAC 25.1(7)“a”, at the Department’s request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

## **12. Compliance Demonstration(s) (Continued)**

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

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## **13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability**

- A. This emission unit is not subject to the New Source Performance Standards (NSPS) as there are no subparts for this source category.
  - B. This emission unit is not subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) as there are no subparts for this source category at this time.
- 

## **14. Operating Limits**

Operating limits for this emission unit shall be:

- A. The baghouse's (CE1262-1) differential pressure drop shall be maintained between 0.1 and 4 inches water column.
  - B. The owner or operator shall properly operate and maintain equipment to monitor the differential pressure drop across the baghouse (CE1262-1). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
  - C. The owner or operator shall develop an operating and maintenance plan for the baghouse (CE1262-1), including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
- 

## **15. Operating Condition Monitoring and Recordkeeping**

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. The owner or operator shall collect and record the pressure drop across the baghouse (CE1262-1), in inches of water, at least once per day. If the pressure drop across the baghouse (CE1262-1) falls outside the range specified in Condition 14 A., the owner or operator shall investigate the baghouse (CE1262-1) and make corrections to it. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the baghouse (CE1262-1) is not in operation.
  - B. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the control equipment.
- 

## **16. Continuous Emission Monitoring**

Continuous emission monitoring is not required by this permit at this time.

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### 17. Permit History

Permit No.	Proj. No.	Description	Date	Stack Testing
09-A-482	09-281	As-built Permit	07/16/09	Yes
09-A-482-S1	10-448	Replace Stack and Increase Stack Height and Diameter	09/22/10	Yes

### 18. Description of Terms and Acronyms

*The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.*

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
PM <sub>2.5</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM <sub>10</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm <sub>v</sub>	parts per million by volume
ppm <sub>w</sub>	parts per million by weight
RACT	Reasonably Available Control Technology
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

**END OF PERMIT**

# Iowa Department of Natural Resources Air Quality Construction Permit

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## Permit Holder

**Firm:** Grain Processing Corporation

**Contact:**

Mick Durham  
Director of Environmental Services

(563) 264-4569

1600 Oregon Street  
Muscatine, IA 52761

**Responsible Party:**

Ron Zitzow  
Senior Vice President

1600 Oregon Street  
Muscatine, IA 52761

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## Permitted Equipment

**Emission Unit(s):** DH4 and DH5 Rotary Dryers Product Receiver Cyclone (EU1263.0)  
Maximum capacity of 60 tons per hour of dry feed

**Control Equipment:** DHWHSE Bypass Baghouse (CE1263-1)

**Emission Point:** EP196.0

**Equipment Location:** 1600 Oregon Street  
Muscatine, IA 52761

**Plant Number:** 70-01-004

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Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Proj. No.	Description	Date	Stack Testing
10-A-563-S1	15-050	Add PM <sub>2.5</sub> and SO <sub>2</sub> emission limits	12/10/15	Yes

Under the Direction of the Director of  
the Department of Natural Resources

## PERMIT CONDITIONS

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### 1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

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### 2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) "*Maintenance and Repair*".

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### 3. Transferability

As limited by 567 IAC 22.3(3)"f", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment<sup>1</sup> (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

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<sup>1</sup> A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

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### 4. Construction

#### A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

#### 4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:

- (1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
- (2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
- (3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

#### B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:

- (1) Any changes are made to the final plans and specifications submitted for the proposed project; or
- (2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

#### C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:

- (1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
- (2) This current amendment becomes void.

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### 5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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### 6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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## 7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to \$10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

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## 8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:

- (1) Per 567 IAC 22.3(3)"b":
  - (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
  - (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
- (2) Per 567 IAC 22.3(3)"f", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
  - (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
  - (b) at least seven (7) days before equipment relocation.
- (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324

and include the following information:

- The date of ownership change,
  - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
  - The construction permit number(s) of the equipment changing ownership.
- (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
- the time,
  - the place,
  - the name of the person who will conduct the tests,
  - and other information as required by the Department;

If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:

- (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
- (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
- (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
- (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.

**8. Notification, Reporting, and Recordkeeping (Continued)**

(5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;

C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)

D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9549  
Fax: (515) 725-9501

E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9545  
Fax: (515) 725-9502

F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	DNR Field Office 6 1023 West Madison Washington, IA 52353-1623 Telephone: (319) 653-2135 Fax: (319) 653-2856
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**9. Appeal Rights**

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

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Director Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319
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### 10. Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr <sup>1</sup>	tons/yr <sup>2</sup>	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	0.61 <sup>3</sup>	NA	0.1 gr/dscf	23.4(7)
PM <sub>10</sub>	0.61 <sup>3,4</sup>	NA	NA	NAAQS
PM <sub>2.5</sub>	0.140 <sup>3,5</sup>	NA	NA	NAAQS
Opacity	NA	NA	40% <sup>6, 7</sup>	23.3(2)"d"
Sulfur Dioxide (SO <sub>2</sub> )	0.42 <sup>3,8</sup>	NA	500 ppm <sub>v</sub>	RACT and 23.3(3)"e"
Nitrogen Oxides (NO <sub>x</sub> )	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	NA	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

<sup>1</sup> The emission limit is expressed as the average of three (3) runs.

<sup>2</sup> The emission limit is a twelve (12) month rolling total.

<sup>3</sup> Requested emission limits maintain project 10-713 below PSD significance rates for PM, PM10, PM2.5, and SO2.

<sup>4</sup> The limit for PM<sub>10</sub> emissions is established to correspond to the emission rate used in the dispersion modeling required by the consent decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV016788, Iowa District Court in and for Muscatine County (July 17, 2006)].

<sup>5</sup> The limit for PM<sub>2.5</sub> emissions is established to address the "Finding of Substantial Inadequacy of Implementation Plan; Call for Iowa SIP Revision" for PM<sub>2.5</sub> published in the Federal Register (76 FR 9706) on February 22, 2011.

<sup>6</sup> The emission limit is a six (6) minute average.

<sup>7</sup> An exceedance of the indicator opacity of 10% will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).

<sup>8</sup> The SO<sub>2</sub> limit is established to address the nonattainment designation for a portion of Muscatine County published in the Federal Register (78 FR 47191) on August 5, 2013. The nonattainment designation is for the 1-hour SO<sub>2</sub> primary national ambient air quality standard promulgated by EPA in 2010 (75 FR 35519, June 22, 2010).

### 11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	82.67 Feet
Discharge Style	Vertical, unobstructed
Stack Opening (inches)	22 inches
Exhaust Temperature (°F)	90°F
Exhaust Flowrate (scfm)	7,000 scfm

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**12. Compliance Demonstration(s)**

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	NA	NA
PM – State	Yes	Stack Test	One time
PM <sub>10</sub>	Yes <sup>1</sup>	Stack Test	One time
PM <sub>2.5</sub>	Yes <sup>2</sup>	Stack Test	One time
Opacity	Yes	Stack Test	One time
SO <sub>2</sub>	Yes	Stack Test	One time
NO <sub>x</sub>	No	NA	NA
VOC	No	NA	NA
CO	No	NA	NA
Pb	No	NA	NA
HAP	No	NA	NA

<sup>1</sup> It is acceptable to test for PM and to assume that all PM emissions are PM<sub>10</sub> emissions.

<sup>2</sup> If method 40 CFR 51, Appendix M, 201A cannot be performed due to stack blockage, then the owner operator shall add a temporary stack extension to perform method 40 CFR 51, Appendix M, 201A. The temporary stack extension shall conform to 40 CFR Part 60, Appendix A, Method 1.

**If an initial compliance demonstration specified above is testing,** the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 no later than one hundred and twenty (120) days after the issuance date of this permit.

**If subsequent testing is specified above,** the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner’s authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM <sub>10</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
PM <sub>2.5</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO <sub>2</sub>	1 hour	40 CFR 60, Appendix A, Method 6C
NO <sub>x</sub>	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18 or 40 CFR 63, Appendix A, Method 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

Per 567 IAC 25.1(7)“a”, at the Department’s request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

## **12. Compliance Demonstration(s) (Continued)**

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

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## **13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability**

- A. This emission unit is not subject to the New Source Performance Standards (NSPS) as there are no subparts for this source category.
  - B. This emission unit is not subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) as there are no subparts for this source category at this time.
- 

## **14. Operating Limits**

Operating limits for this emission unit shall be:

- A. The baghouse's (CE1263-1) differential pressure drop shall be maintained between 0.3 and 6 inches water column.
  - B. The owner or operator shall properly operate and maintain equipment to continuously monitor the differential pressure drop across the baghouse (CE1263-1). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
  - C. The owner or operator shall develop an operating and maintenance plan for the baghouse (CE1263-1), including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
- 

## **15. Operating Condition Monitoring and Recordkeeping**

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. The owner or operator shall collect and record the pressure drop across the baghouse (CE1263-1), in inches of water, continuously. If the pressure drop across the baghouse (CE1263-1) falls outside the range specified in Condition 14 A., the owner or operator shall investigate the baghouse (CE1263-1) and make corrections to it. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the baghouse (CE1263-1) is not in operation.
  - B. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the control equipment.
- 

## **16. Continuous Emission Monitoring**

Continuous emission monitoring is not required by this permit at this time.

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**17. Permit History**

Permit No.	Proj. No.	Description	Date	Stack Testing
10-A-563	10-555	Original Permit	12/10/10	No

**18. Description of Terms and Acronyms**

*The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.*

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
PM <sub>2.5</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM <sub>10</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm <sub>v</sub>	parts per million by volume
ppm <sub>w</sub>	parts per million by weight
RACT	Reasonably Available Control Technology
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

**END OF PERMIT**

# Iowa Department of Natural Resources

## Air Quality Construction Permit

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### Permit Holder

**Firm:** Grain Processing Corporation

**Contact:**

Mick Durham  
Director of Environmental Services

(563) 264-4569

1600 Oregon Street  
Muscatine, IA 52761

**Responsible Party:**

Ron Zitzow  
Senior Vice President

1600 Oregon Street  
Muscatine, IA 52761

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### Permitted Equipment

**Emission Unit(s):**

Corn Wet Mill Steep Tanks Nos. 1-24 (EU2810.0 – EU2833.0)  
Maximum Capacity: 3050 bushels (each)  
Corn Wet Mill Steep Tanks Nos. 25-30 (EU2834.0 – EU2839.0)  
Maximum Capacity: 4550 bushels (each)  
North Corn Wet Drag (EU2898.1), Maximum Capacity: 100,500 bushels per day

**Control Equipment:**

Spray Chamber Scrubber (CE2810-1)

**Emission Point:**

EP200N

**Equipment Location:**

1600 Oregon Street  
Muscatine, IA 52761

**Plant Number:**

70-01-004

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Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Project No.	Description	Date	Stack Testing
15-A-200	16-028	Permit Units to limit SO <sub>2</sub> emissions	03/25/16	Yes



Under the Direction of the Director of  
the Department of Natural Resources

## PERMIT CONDITIONS

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### 1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

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### 2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) "*Maintenance and Repair*".

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### 3. Transferability

As limited by 567 IAC 22.3(3)"F", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment<sup>1</sup> (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

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<sup>1</sup> A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

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### 4. Construction

#### A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.



#### 4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:

- (1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
- (2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
- (3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

##### B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:

- (1) Any changes are made to the final plans and specifications submitted for the proposed project; or
- (2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

##### C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:

- (1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
- (2) This current amendment becomes void.

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#### 5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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#### 6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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## 7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to \$10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

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## 8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:

- (1) Per 567 IAC 22.3(3)"b":
  - (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
  - (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
- (2) Per 567 IAC 22.3(3)"f", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
  - (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
  - (b) at least seven (7) days before equipment relocation.
- (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324

and include the following information:

- The date of ownership change,
  - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
  - The construction permit number(s) of the equipment changing ownership.
- (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
- the time,
  - the place,
  - the name of the person who will conduct the tests,
  - and other information as required by the Department;

If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:

- (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
- (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
- (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
- (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.

**8. Notification, Reporting, and Recordkeeping (Continued)**

- (5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;
- C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)
- D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9549  
Fax: (515) 725-9501

- E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9545  
Fax: (515) 725-9502

- F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	DNR Field Office 6 1023 West Madison Washington, IA 52353 Telephone: (319) 653-2135 Fax: (319) 653-2856
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**9. Appeal Rights**

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

Director Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319
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## 10. Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr <sup>1</sup>	tons/yr <sup>2</sup>	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	NA	NA	NA	NA
PM <sub>10</sub>	NA	NA	NA	NA
PM <sub>2.5</sub>	NA	NA	NA	NA
Opacity	NA	NA	NA	NA
Sulfur Dioxide (SO <sub>2</sub> )	2.80 <sup>3</sup>	NA	500 ppm <sub>v</sub>	RACT, 23.3(3)"e"
Nitrogen Oxides (NO <sub>x</sub> )	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	NA	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

1. The emission limit is expressed as the average of three (3) runs.
2. The emission limit is a twelve (12) month rolling total.
3. The SO<sub>2</sub> limit is established to address the nonattainment designation for a portion of Muscatine County published in the Federal Register (78 FR 47191) on August 5, 2013. The nonattainment designation is for the 1-hour SO<sub>2</sub> primary national ambient air quality standard promulgated by EPA in 2010 (75 FR 35519, June 22, 2010).

## 11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	60 Feet
Discharge Style	Vertical Unobstructed
Stack Opening (inches, diameter)	48 inches
Exhaust Temperature (°F)	129 °F
Exhaust Flowrate (scfm)	22,500 scfm

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**12. Compliance Demonstration(s)**

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	Performance Testing	NA
PM – State	No	Performance Testing	NA
PM <sub>10</sub>	No	Performance Testing	NA
PM <sub>2.5</sub>	No	Performance Testing	NA
Opacity	No	Performance Testing	NA
SO <sub>2</sub>	Yes	Performance Testing	Once Every 3 Calendar Years <sup>1</sup>
NO <sub>x</sub>	No	Performance Testing	NA
VOC	No	Performance Testing	NA
CO	No	Performance Testing	NA
Pb	No	Performance Testing	NA
HAP	No	Performance Testing	NA

<sup>1</sup> After the initial performance test, performance testing for SO<sub>2</sub> shall be conducted once every 3 calendar years. After completion of three consecutive performance tests that demonstrate compliance with the SO<sub>2</sub> emission limit in condition 10, the owner or operator may request to modify the performance testing frequency for SO<sub>2</sub>.

**If an initial compliance demonstration specified above is testing**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 for SO<sub>2</sub> within one hundred and twenty (120) days after installation of the Spray Chamber Scrubber (CE2810-1) is completed.

**If subsequent testing is specified above**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner’s authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM <sub>10</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
PM <sub>2.5</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO <sub>2</sub>	1 hour	40 CFR 60, Appendix A, Method 6C
NO <sub>x</sub>	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18 or 40 CFR 63, Appendix A, Method 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

## **12. Compliance Demonstration(s) (Continued)**

Per 567 IAC 25.1(7)"a", at the Department's request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

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## **13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability**

These emission units are not subject to any New Source Performance Standard or National Emission Standards for Hazardous Air Pollutants (NESHAP) at this time. There are no applicable subparts.

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## **14. Operating Limits**

Operating limits for this emission unit shall be:

- A. The Spray Chamber Scrubber (CE2810-1) shall be installed by December 31, 2017 to control SO<sub>2</sub> emissions from Corn Steep Tanks 1-30 (EU2810.0 – EU2839.0) and the North Wet Corn Drag (EU2898.1).
  - B. No later than 60 days prior to initiating modification of the Corn Steep Tanks 1-30 (EU2810.0 – EU2839.0) and the North Wet Corn Drag (EU2898.1) by installing the Spray Chamber Scrubber (CE2810-1), the owner or operator shall apply to modify this construction permit. In the application, the owner or operator shall include, at a minimum, the following information to the Department: the manufacturer and model number of the scrubber, the total liquor flow rate to the scrubber, the recycled liquor flow rate to the scrubber, the pH of the liquor used in the scrubber, the reagents used in the liquor of the scrubber, the pressure drop range across the scrubber, the pollutants controlled and an estimate of the scrubber's control efficiency for the different air pollutants.
  - C. Sodium bisulfite (NaHSO<sub>3</sub>) shall be used as a steeping additive for the Corn Wet Mill Steeping Tanks 1-62 (EU2810.0 – EU2871.0). Prior to using any other steeping additive as a substitute for sodium bisulfite in the Corn Wet Mill Steeping Tanks 1-62 (EU2810.0 – EU2871.0), the owner or operator shall apply for, and obtain, a modification to this construction permit.
  - D. The amount of sodium bisulfite added on a wet basis to the Corn Wet Mill Steeping Tanks 1-62 (EU2810.0 – EU2871.0) shall not exceed 0.40 pound per bushel of corn on a monthly basis.
  - E. The concentration of sodium bisulfite in the solution added to the Corn Wet Mill Steeping Tanks 1-62 (EU2810.0 – EU2871.0) shall not exceed 42% by weight.
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**15. Operating Condition Monitoring and Recordkeeping**

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. The owner or operator shall maintain a record of the completion date for the installation of the Spray Chamber Scrubber (CE2810-1).
- B. The owner or operator shall develop for the Spray Chamber Scrubber (CE2810-1) a monitoring system that will monitor and record continuously scrubber operating parameters to ensure continuous compliance with the emission limits. Such parameters shall include, but are not limited to, the total liquor flow rate to the scrubber, the pressure drop across the scrubber, and the pH of the scrubber's liquor.
- C. The owner or operator shall maintain the following daily records for the Corn Wet Mill Steeping Tanks 1-62 (EU2810.0 – EU2871.0):
  - i. The total amount of sodium bisulfite added on a wet basis to the tanks, in pounds; and
  - ii. The total amount of corn loaded into the tanks, in bushels.
- D. For Corn Wet Mill Steeping Tanks 1-62 (EU2810.0 – EU2871.0), the owner or operator shall calculate for each calendar month the amount of sodium bisulfite added on a wet basis per bushel of corn (pounds NaHSO<sub>3</sub> / bushel).
- E. The owner or operator shall maintain a record of a Safety Data Sheet or other supplier information that shows the weight percent of sodium bisulfite in the liquid solution added to the steeping tanks.

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**16. Continuous Emission Monitoring**

Continuous emission monitoring is not required by this permit at this time.

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**17. Permit History**

Permit No.	Project No.	Description	Date	Stack Testing

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## 18. Description of Terms and Acronyms

*The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.*

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
PM <sub>2.5</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM <sub>10</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm <sub>v</sub>	parts per million by volume
ppm <sub>w</sub>	parts per million by weight
RACT	Reasonably Available Control Technology
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

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**END OF PERMIT**



# Iowa Department of Natural Resources

## Air Quality Construction Permit

### Permit Holder

**Firm:** Grain Processing Corporation

**Contact:**

Mick Durham  
Director of Environmental Services

(563) 264-4569

1600 Oregon Street  
Muscatine, IA 52761

**Responsible Party:**

Ron Zitzow  
Senior Vice President

1600 Oregon Street  
Muscatine, IA 52761

### Permitted Equipment

**Emission Unit(s):** Corn Wet Mill Steep Tanks Nos. 31-42, 51-58 (EU2840.0 – EU2851.0, EU2860.0-EU2867.0), Maximum Capacity: 4550 bushels (each)  
Corn Wet Mill Steep Tanks Nos. 43-50, 59-62 (EU2852.0 – EU2859.0, EU2868 – EU2871), Maximum Capacity: 6700 bushels (each)  
South Wet Corn Drag (EU2898.2), Maximum Capacity: 179,600 bushels per day

**Control Equipment:** Spray Chamber Scrubber (CE2810-2)

**Emission Point:** EP200S

**Equipment Location:** 1600 Oregon Street  
Muscatine, IA 52761

**Plant Number:** 70-01-004

Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Project No.	Description	Date	Stack Testing
15-A-201	16-028	Permit Units to limit SO <sub>2</sub> emissions	03/25/16	Yes



Under the Direction of the Director of  
the Department of Natural Resources

## PERMIT CONDITIONS

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### 1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

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### 2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) "*Maintenance and Repair*".

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### 3. Transferability

As limited by 567 IAC 22.3(3)"f", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment<sup>1</sup> (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

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<sup>1</sup> A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

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### 4. Construction

#### A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

#### 4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:

- (1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
- (2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
- (3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

#### B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:

- (1) Any changes are made to the final plans and specifications submitted for the proposed project; or
- (2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

#### C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:

- (1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
- (2) This current amendment becomes void.

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### 5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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### 6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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## 7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to \$10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

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## 8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:

- (1) Per 567 IAC 22.3(3)"b":
  - (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
  - (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
- (2) Per 567 IAC 22.3(3)"P", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
  - (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
  - (b) at least seven (7) days before equipment relocation.
- (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324

and include the following information:

- The date of ownership change,
  - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
  - The construction permit number(s) of the equipment changing ownership.
- (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
- the time,
  - the place,
  - the name of the person who will conduct the tests,
  - and other information as required by the Department;

If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:

- (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
- (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
- (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
- (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.

**8. Notification, Reporting, and Recordkeeping (Continued)**

(5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;

C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)

D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9549  
Fax: (515) 725-9501

E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9545  
Fax: (515) 725-9502

F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	DNR Field Office 6 1023 West Madison Washington, IA 52353 Telephone: (319) 653-2135 Fax: (319) 653-2856
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**9. Appeal Rights**

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

Director Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319
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## 10. Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr <sup>1</sup>	tons/yr <sup>2</sup>	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	NA	NA	NA	NA
PM <sub>10</sub>	NA	NA	NA	NA
PM <sub>2.5</sub>	NA	NA	NA	NA
Opacity	NA	NA	NA	NA
Sulfur Dioxide (SO <sub>2</sub> )	3.17 <sup>3</sup>	NA	500 ppm <sub>v</sub>	RACT, 23.3(3) <sup>b,e</sup>
Nitrogen Oxides (NO <sub>x</sub> )	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	NA	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

1. The emission limit is expressed as the average of three (3) runs.
2. The emission limit is a twelve (12) month rolling total.
3. The SO<sub>2</sub> limit is established to address the nonattainment designation for a portion of Muscatine County published in the Federal Register (78 FR 47191) on August 5, 2013. The nonattainment designation is for the 1-hour SO<sub>2</sub> primary national ambient air quality standard promulgated by EPA in 2010 (75 FR 35519, June 22, 2010).

## 11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	60 Feet
Discharge Style	Vertical Unobstructed
Stack Opening (inches, diameter)	48 inches
Exhaust Temperature (°F)	129 °F
Exhaust Flowrate (scfm)	22,500 scfm

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**12. Compliance Demonstration(s)**

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	Performance Testing	NA
PM – State	No	Performance Testing	NA
PM <sub>10</sub>	No	Performance Testing	NA
PM <sub>2.5</sub>	No	Performance Testing	NA
Opacity	No	Performance Testing	NA
SO <sub>2</sub>	Yes	Performance Testing	Once Every 3 Calendar Years <sup>1</sup>
NO <sub>x</sub>	No	Performance Testing	NA
VOC	No	Performance Testing	NA
CO	No	Performance Testing	NA
Pb	No	Performance Testing	NA
HAP	No	Performance Testing	NA

<sup>1</sup> After the initial performance test, performance testing for SO<sub>2</sub> shall be conducted once every 3 calendar years. After completion of three consecutive performance tests that demonstrate compliance with the SO<sub>2</sub> emission limit in condition 10, the owner or operator may request to modify the performance testing frequency for SO<sub>2</sub>.

**If an initial compliance demonstration specified above is testing**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 for SO<sub>2</sub> within one hundred and twenty (120) days after installation of the Spray Chamber scrubber (CE2810-2) is completed.

**If subsequent testing is specified above**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner’s authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM <sub>10</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
PM <sub>2.5</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO <sub>2</sub>	1 hour	40 CFR 60, Appendix A, Method 6C
NO <sub>x</sub>	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18 or 40 CFR 63, Appendix A, Method 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

## **12. Compliance Demonstration(s) (Continued)**

Per 567 IAC 25.1(7)"a", at the Department's request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

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## **13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability**

These emission units are not subject to any New Source Performance Standard or National Emission Standards for Hazardous Air Pollutants (NESHAP) at this time. There are no applicable subparts.

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## **14. Operating Limits**

Operating limits for this emission unit shall be:

- A. The Spray Chamber scrubber (CE2810-2) shall be installed by January 31, 2018 to control SO<sub>2</sub> emissions from Corn Steep Tanks 31-62 (EU2840.0 – EU2871.0) and the South Wet Corn Drag (EU2898.2).
  - B. No later than 60 days prior to initiating modification of the Corn Steep Tanks 31-62 (EU2840.0 – EU2871.0) and the South Wet Corn Drag (EU2898.2) by installing the Spray Chamber Scrubber (CE2810-2), the owner or operator shall apply to modify this construction permit. In the application, the owner or operator shall include, at a minimum, the following information to the Department: the manufacturer and model number of the scrubber, the total liquor flow rate to the scrubber, the recycled liquor flow rate to the scrubber, the pH of the liquor used in the scrubber, the reagents used in the liquor of the scrubber, the pressure drop range across the scrubber, the pollutants controlled and an estimate of the scrubber's control efficiency for the different air pollutants.
  - C. Sodium bisulfite (NaHSO<sub>3</sub>) shall be used as a steeping additive for the Corn Wet Mill Steeping Tanks 1-62 (EU2810.0 – EU2871.0). Prior to using any other steeping additive as a substitute for sodium bisulfite in the Corn Wet Mill Steeping Tanks 1-62 (EU2810.0 – EU2871.0), the owner or operator shall apply for, and obtain, a modification to this construction permit.
  - D. The amount of sodium bisulfite added on a wet basis to the Corn Wet Mill Steeping Tanks 1-62 (EU2810.0 – EU2871.0) shall not exceed 0.40 pound per bushel of corn on a monthly basis.
  - E. The concentration of sodium bisulfite in the solution added to the Corn Wet Mill Steeping Tanks 1-62 (EU2810.0-EU2871.0) shall not exceed 42% by weight.
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### 15. Operating Condition Monitoring and Recordkeeping

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. The owner or operator shall maintain a record of the completion date for the installation of the Spray Chamber Scrubber (CE2810-2).
- B. The owner or operator shall develop for the Spray Chamber Scrubber (CE2810-2) a monitoring system that will monitor and record continuously scrubber operating parameters to ensure continuous compliance with the emission limits. Such parameters shall include, but are not limited to, the total liquor flow rate to the scrubber, the pressure drop across the scrubber, and the pH of the scrubber's liquor.
- C. The owner or operator shall maintain the following daily records for the Corn Wet Mill Steeping Tanks 1-62 (EU2810.0 – EU2871.0):
  - i. The total amount of sodium bisulfite added on a wet basis to the tanks, in pounds; and
  - ii. The total amount of corn loaded into the tanks, in bushels.
- D. For Corn Wet Mill Steeping Tanks 1-62 (EU2810.0 – EU2871.0), the owner or operator shall calculate for each calendar month the amount of sodium bisulfite added on a wet basis per bushel of corn (pounds NaHSO<sub>3</sub>/ bushel).
- E. The owner or operator shall maintain a record of a Safety Data Sheet or other supplier information that shows the weight percent of sodium bisulfite in the liquid solution added to the steeping tanks.

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### 16. Continuous Emission Monitoring

Continuous emission monitoring is not required by this permit at this time.

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### 17. Permit History

Permit No.	Project No.	Description	Date	Stack Testing

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## 18. Description of Terms and Acronyms

*The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.*

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
CO <sub>2</sub> e	Carbon dioxide equivalent which is the aggregate emissions of greenhouse gas (GHG) emissions based on global warming potentials
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
PM <sub>2.5</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM <sub>10</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm <sub>v</sub>	parts per million by volume
ppm <sub>w</sub>	parts per million by weight
RACT	Reasonably Available Control Technology
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

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**END OF PERMIT**

# Iowa Department of Natural Resources

## Air Quality Construction Permit

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### Permit Holder

**Firm:** Grain Processing Corporation

**Contact:**

Mick Durham  
Director of Environmental Services

(563) 264-4569

1600 Oregon Street  
Muscatine, IA 52761

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**Responsible Party:**

Ron Zitzow  
Senior Vice President

### Permitted Equipment

**Emission Unit(s):** Corn Wet Mill Steep Water Tank (EU2896.0)  
Maximum Storage Capacity: 360,000 gallons

**Control Equipment:** None

**Emission Point:** EP264.0

**Equipment Location:** 1600 Oregon Street  
Muscatine, IA 52761

**Plant Number:** 70-01-004

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Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Project No.	Description	Date	Stack Testing
15-A-202	15-050	Permit Unit to limit SO <sub>2</sub>	12/10/15	No



Under the Direction of the Director of  
the Department of Natural Resources

## PERMIT CONDITIONS

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### 1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

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### 2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) "*Maintenance and Repair*".

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### 3. Transferability

As limited by 567 IAC 22.3(3)"f", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment<sup>1</sup> (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

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<sup>1</sup> A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

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### 4. Construction

#### A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

#### 4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:

- (1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
- (2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
- (3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

#### B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:

- (1) Any changes are made to the final plans and specifications submitted for the proposed project; or
- (2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

#### C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:

- (1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
- (2) This current amendment becomes void.

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### 5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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### 6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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## 7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to \$10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

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## 8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:

- (1) Per 567 IAC 22.3(3)"b":
  - (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
  - (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
- (2) Per 567 IAC 22.3(3)"P", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
  - (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
  - (b) at least seven (7) days before equipment relocation.
- (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324

and include the following information:

- The date of ownership change,
  - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
  - The construction permit number(s) of the equipment changing ownership.
- (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
- the time,
  - the place,
  - the name of the person who will conduct the tests,
  - and other information as required by the Department;

If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:

- (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
- (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
- (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
- (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.

**8. Notification, Reporting, and Recordkeeping (Continued)**

- (5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;
- C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)
- D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9549  
Fax: (515) 725-9501

- E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9545  
Fax: (515) 725-9502

- F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	DNR Field Office 6 1023 West Madison Washington, IA 52353 Telephone: (319) 653-2135 Fax: (319) 653-2856
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**9. Appeal Rights**

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

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Director Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319
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### 10. Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr <sup>1</sup>	tons/yr <sup>2</sup>	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	NA	NA	NA	NA
PM <sub>10</sub>	NA	NA	NA	NA
PM <sub>2.5</sub>	NA	NA	NA	NA
Opacity	NA	NA	NA	NA
Sulfur Dioxide (SO <sub>2</sub> )	0.001 <sup>3</sup>	NA	500 ppm <sub>v</sub>	RACT, 23.3(3)"e"
Nitrogen Oxides (NO <sub>x</sub> )	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	NA	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

- The emission limit is expressed as the average of three (3) runs.
- The emission limit is a twelve (12) month rolling total.
- The SO<sub>2</sub> limit is established to address the nonattainment designation for a portion of Muscatine County published in the Federal Register (78 FR 47191) on August 5, 2013. The nonattainment designation is for the 1-hour SO<sub>2</sub> primary national ambient air quality standard promulgated by EPA in 2010 (75 FR 35519, June 22, 2010).

### 11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	43 Feet
Discharge Style	Horizontal
Stack Opening (inches, diameter)	12 inches
Exhaust Temperature (°F)	130 °F
Exhaust Flowrate (scfm)	90 scfm

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

### 12. Compliance Demonstration(s)

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	Performance Testing	NA
PM – State	No	Performance Testing	NA
PM <sub>10</sub>	No	Performance Testing	NA
PM <sub>2.5</sub>	No	Performance Testing	NA
Opacity	No	Performance Testing	NA
SO <sub>2</sub>	No	Performance Testing	NA
NO <sub>x</sub>	No	Performance Testing	NA
VOC	No	Performance Testing	NA
CO	No	Performance Testing	NA
Pb	No	Performance Testing	NA
HAP	No	Performance Testing	NA



**12. Compliance Demonstration(s) (Continued)**

If an initial compliance demonstration specified above is testing, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 within sixty (60) days after achieving maximum production rate and no later than one hundred eighty (180) days after the initial startup date of the proposed equipment.

If subsequent testing is specified above, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner’s authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM <sub>10</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
PM <sub>2.5</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO <sub>2</sub>	1 hour	40 CFR 60, Appendix A, Method 6C
NO <sub>x</sub>	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18 or 40 CFR 63, Appendix A, Method 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

Per 567 IAC 25.1(7)"a", at the Department’s request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

**13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability**

These emission units are not subject to any New Source Performance Standard or National Emission Standards for Hazardous Air Pollutants (NESHAP) at this time. There are no applicable subparts.

**14. Operating Limits**

Operating limits for this emission unit shall be:

- A. This permit establishes no operating limits for this emissions unit.

**15. Operating Condition Monitoring and Recordkeeping**

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. This permit establishes no monitoring and recordkeeping requirements for this emissions unit.

**16. Continuous Emission Monitoring**

Continuous emission monitoring is not required by this permit at this time.

**17. Permit History**

Permit No.	Project No.	Description	Date	Stack Testing

**18. Description of Terms and Acronyms**

*The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.*

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram

MM	Million
MW	Megawatt
NA	Not Applicable
PM <sub>2.5</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM <sub>10</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm <sub>v</sub>	parts per million by volume
ppm <sub>w</sub>	parts per million by weight
RACT	Reasonably Available Control Technology
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

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**END OF PERMIT**

# Iowa Department of Natural Resources Air Quality Construction Permit

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## Permit Holder

**Firm:** Grain Processing Corporation

**Contact:**

Mick Durham  
Director of Environmental Services

(563) 264-4569

1600 Oregon Street  
Muscatine, IA 52761

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**Responsible Party:**

Ron Zitzow  
Senior Vice President

## Permitted Equipment

**Emission Unit(s):** GP1: Gluten Filter No. 1 (EU1250.0)  
Maximum Capacity: 0.86 ton per hour gluten cake output

**Control Equipment:** None

**Emission Point:** EP268.0

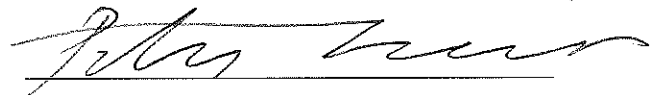
**Equipment Location:** 1600 Oregon Street  
Muscatine, IA 52761

**Plant Number:** 70-01-004

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Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Project No.	Description	Date	Stack Testing
15-A-203	15-362	Permit Unit to limit SO <sub>2</sub> emissions	02/15/16	No



Under the Direction of the Director of  
the Department of Natural Resources

## PERMIT CONDITIONS

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### 1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

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### 2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) "*Maintenance and Repair*".

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### 3. Transferability

As limited by 567 IAC 22.3(3)"F", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment<sup>1</sup> (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

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<sup>1</sup> A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

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### 4. Construction

#### A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

#### 4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:

- (1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
- (2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
- (3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

#### B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:

- (1) Any changes are made to the final plans and specifications submitted for the proposed project; or
- (2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

#### C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:

- (1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
- (2) This current amendment becomes void.

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### 5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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### 6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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### 7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to \$10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

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## 8. Notification, Reporting, and Recordkeeping

- A. The owner or operator shall furnish the Department the following written notifications:
- (1) Per 567 IAC 22.3(3)"b":
    - (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
    - (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
  - (2) Per 567 IAC 22.3(3)"f", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
    - (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
    - (b) at least seven (7) days before equipment relocation.
  - (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324

and include the following information:

- The date of ownership change,
  - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
  - The construction permit number(s) of the equipment changing ownership.
- (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
- the time,
  - the place,
  - the name of the person who will conduct the tests,
  - and other information as required by the Department;

If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

- B. The owner or operator shall furnish the Department with the following reports:
- (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
  - (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
  - (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
  - (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.

**8. Notification, Reporting, and Recordkeeping (Continued)**

- (5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;
- C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)
- D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9549  
Fax: (515) 725-9501

- E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9545  
Fax: (515) 725-9502

- F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	DNR Field Office 6 1023 West Madison Washington, IA 52353 Telephone: (319) 653-2135 Fax: (319) 653-2856
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**9. Appeal Rights**

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

Director Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319
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### 10. Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr <sup>1</sup>	tons/yr <sup>2</sup>	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	NA	NA	NA	NA
PM <sub>10</sub>	NA	NA	NA	NA
PM <sub>2.5</sub>	NA	NA	NA	NA
Opacity	NA	NA	NA	NA
Sulfur Dioxide (SO <sub>2</sub> )	0.067 <sup>3</sup>	NA	500 ppm <sub>v</sub>	RACT, 23.3(3)"e"
Nitrogen Oxides (NO <sub>x</sub> )	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	NA	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

- The emission limit is expressed as the average of three (3) runs.
- The emission limit is a twelve (12) month rolling total.
- The SO<sub>2</sub> limit is established to address the nonattainment designation for a portion of Muscatine County published in the Federal Register (78 FR 47191) on August 5, 2013. The nonattainment designation is for the 1-hour SO<sub>2</sub> primary national ambient air quality standard promulgated by EPA in 2010 (75 FR 35519, June 22, 2010).

### 11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	30 Feet
Discharge Style	Horizontal
Stack Opening (inches, diameter)	10.5 inches
Exhaust Temperature (°F)	73 °F
Exhaust Flowrate (scfm)	4170 scfm

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

### 12. Compliance Demonstration(s)

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	Performance Testing	NA
PM – State	No	Performance Testing	NA
PM <sub>10</sub>	No	Performance Testing	NA
PM <sub>2.5</sub>	No	Performance Testing	NA
Opacity	No	Performance Testing	NA
SO <sub>2</sub>	No	Performance Testing	NA
NO <sub>x</sub>	No	Performance Testing	NA
VOC	No	Performance Testing	NA
CO	No	Performance Testing	NA
Pb	No	Performance Testing	NA
HAP	No	Performance Testing	NA

**12. Compliance Demonstration(s) (Continued)**

**If an initial compliance demonstration specified above is testing**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 within one hundred and twenty days (120) days after the issuance date of this permit.

**If subsequent testing is specified above**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner’s authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM <sub>10</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
PM <sub>2.5</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO <sub>2</sub>	1 hour	40 CFR 60, Appendix A, Method 6C
NO <sub>x</sub>	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18, or 40 CFR 63, Appendix A, Method 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

Per 567 IAC 25.1(7)“a”, at the Department’s request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

**13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability**

These emission units are not subject to any New Source Performance Standard or National Emission Standards for Hazardous Air Pollutants (NESHAP) at this time. There are no applicable subparts.

**14. Operating Limits**

Operating limits for this emission unit shall be:

- A. This permit establishes no operating limits for this emissions unit.
- 

**15. Operating Condition Monitoring and Recordkeeping**

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. This permit establishes no monitoring and recordkeeping requirements for this emissions unit.
- 

**16. Continuous Emission Monitoring**

Continuous emission monitoring is not required by this permit at this time.

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**17. Permit History**

<b>Permit No.</b>	<b>Project No.</b>	<b>Description</b>	<b>Date</b>	<b>Stack Testing</b>

---

## 18. Description of Terms and Acronyms

*The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.*

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
PM <sub>2.5</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM <sub>10</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm <sub>v</sub>	parts per million by volume
ppm <sub>w</sub>	parts per million by weight
RACT	Reasonably Available Control Technology
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

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**END OF PERMIT**

# Iowa Department of Natural Resources Air Quality Construction Permit

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## Permit Holder

**Firm:** Grain Processing Corporation

**Contact:**

Mick Durham  
Director of Environmental Services

(563) 264-4569

1600 Oregon Street  
Muscatine, IA 52761

**Responsible Party:**

Ron Zitzow  
Senior Vice President

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## Permitted Equipment

**Emission Unit(s):** GP1: Gluten Filter No. 2 (EU1251.0)  
Maximum Capacity: 0.86 ton per hour gluten cake output

**Control Equipment:** None

**Emission Point:** EP269.0

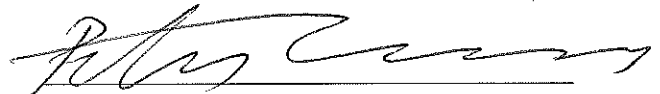
**Equipment Location:** 1600 Oregon Street  
Muscatine, IA 52761

**Plant Number:** 70-01-004

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Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Project No.	Description	Date	Stack Testing
15-A-204	15-362	Permit Unit to limit SO <sub>2</sub> emissions	02/15/16	No



Under the Direction of the Director of  
the Department of Natural Resources

## PERMIT CONDITIONS

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### 1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

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### 2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) "*Maintenance and Repair*".

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### 3. Transferability

As limited by 567 IAC 22.3(3)'f', this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment<sup>1</sup> (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

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<sup>1</sup> A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

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### 4. Construction

#### A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

#### 4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:

- (1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
- (2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
- (3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

#### B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:

- (1) Any changes are made to the final plans and specifications submitted for the proposed project; or
- (2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

#### C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:

- (1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
- (2) This current amendment becomes void.

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## 5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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## 6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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## 7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to \$10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

---

## 8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:

- (1) Per 567 IAC 22.3(3)"b":
  - (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
  - (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
- (2) Per 567 IAC 22.3(3)"f", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
  - (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
  - (b) at least seven (7) days before equipment relocation.
- (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324

and include the following information:

- The date of ownership change,
  - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
  - The construction permit number(s) of the equipment changing ownership.
- (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
    - the time,
    - the place,
    - the name of the person who will conduct the tests,
    - and other information as required by the Department;

If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:

- (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
- (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
- (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
- (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.



**8. Notification, Reporting, and Recordkeeping (Continued)**

- (5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;
- C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)
- D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9549  
Fax: (515) 725-9501

- E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9545  
Fax: (515) 725-9502

- F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	DNR Field Office 6 1023 West Madison Washington, IA 52353 Telephone: (319) 653-2135 Fax: (319) 653-2856
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**9. Appeal Rights**

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

Director Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319
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**10. Emission Limits**

The following emission limits shall not be exceeded:

Pollutant	lb/hr <sup>1</sup>	tons/yr <sup>2</sup>	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	NA	NA	NA	NA
PM <sub>10</sub>	NA	NA	NA	NA
PM <sub>2.5</sub>	NA	NA	NA	NA
Opacity	NA	NA	NA	NA
Sulfur Dioxide (SO <sub>2</sub> )	0.067 <sup>3</sup>	NA	500 ppm <sub>v</sub>	RACT, 23.3(3)"e"
Nitrogen Oxides (NO <sub>x</sub> )	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	NA	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

1. The emission limit is expressed as the average of three (3) runs.
2. The emission limit is a twelve (12) month rolling total.
3. The SO<sub>2</sub> limit is established to address the nonattainment designation for a portion of Muscatine County published in the Federal Register (78 FR 47191) on August 5, 2013. The nonattainment designation is for the 1-hour SO<sub>2</sub> primary national ambient air quality standard promulgated by EPA in 2010 (75 FR 35519, June 22, 2010).

**11. Emission Point Characteristics**

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	40 Feet
Discharge Style	Horizontal
Stack Opening (inches, diameter)	10.5 inches
Exhaust Temperature (°F)	73 °F
Exhaust Flowrate (scfm)	4170 scfm

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**12. Compliance Demonstration(s)**

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	Performance Testing	NA
PM – State	No	Performance Testing	NA
PM <sub>10</sub>	No	Performance Testing	NA
PM <sub>2.5</sub>	No	Performance Testing	NA
Opacity	No	Performance Testing	NA
SO <sub>2</sub>	No	Performance Testing	NA
NO <sub>x</sub>	No	Performance Testing	NA
VOC	No	Performance Testing	NA
CO	No	Performance Testing	NA
Pb	No	Performance Testing	NA
HAP	No	Performance Testing	NA

**12. Compliance Demonstration(s) (Continued)**

**If an initial compliance demonstration specified above is testing**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 within one hundred and twenty days (120) days after the issuance date of this permit.

**If subsequent testing is specified above**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner’s authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM <sub>10</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
PM <sub>2.5</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO <sub>2</sub>	1 hour	40 CFR 60, Appendix A, Method 6C
NO <sub>x</sub>	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18, or 40 CFR 63, Appendix A, Method 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

Per 567 IAC 25.1(7)“a”, at the Department’s request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

**13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability**

These emission units are not subject to any New Source Performance Standard or National Emission Standards for Hazardous Air Pollutants (NESHAP) at this time. There are no applicable subparts.

**14. Operating Limits**

Operating limits for this emission unit shall be:

- A. This permit establishes no operating limits for this emissions unit.
- 

**15. Operating Condition Monitoring and Recordkeeping**

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. This permit establishes no monitoring and recordkeeping requirements for this emissions unit.
- 

**16. Continuous Emission Monitoring**

Continuous emission monitoring is not required by this permit at this time.

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**17. Permit History**

Permit No.	Project No.	Description	Date	Stack Testing

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## 18. Description of Terms and Acronyms

*The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.*

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
PM <sub>2.5</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM <sub>10</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm <sub>v</sub>	parts per million by volume
ppm <sub>w</sub>	parts per million by weight
RACT	Reasonably Available Control Technology
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

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**END OF PERMIT**

# Iowa Department of Natural Resources Air Quality Construction Permit

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## Permit Holder

**Firm:** Grain Processing Corporation

**Contact:**

Mick Durham  
Director of Environmental Services

(563) 264-4569

1600 Oregon Street  
Muscatine, IA 52761

**Responsible Party:**

Ron Zitzow  
Senior Vice President

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## Permitted Equipment

**Emission Unit(s):** GP1: Gluten Filter No. 3 (EU1252.0)  
Maximum Capacity: 0.86 ton per hour gluten cake output

**Control Equipment:** None

**Emission Point:** EP270.0

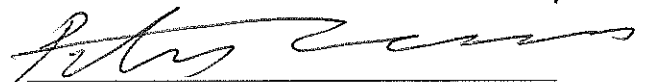
**Equipment Location:** 1600 Oregon Street  
Muscatine, IA 52761

**Plant Number:** 70-01-004

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Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Project No.	Description	Date	Stack Testing
15-A-205	15-362	Permit Unit to limit SO <sub>2</sub> emissions	02/15/16	No



Under the Direction of the Director of  
the Department of Natural Resources

## PERMIT CONDITIONS

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### 1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

---

### 2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) "*Maintenance and Repair*".

---

### 3. Transferability

As limited by 567 IAC 22.3(3)"f", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment<sup>1</sup> (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

---

<sup>1</sup> A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

---

### 4. Construction

#### A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

#### 4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:

- (1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
- (2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
- (3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

#### B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:

- (1) Any changes are made to the final plans and specifications submitted for the proposed project; or
- (2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

#### C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:

- (1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
- (2) This current amendment becomes void.

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### 5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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### 6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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## 7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to \$10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

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## 8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:

- (1) Per 567 IAC 22.3(3)"b":
  - (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
  - (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
- (2) Per 567 IAC 22.3(3)"f", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
  - (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
  - (b) at least seven (7) days before equipment relocation.
- (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324

and include the following information:

- The date of ownership change,
  - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
  - The construction permit number(s) of the equipment changing ownership.
- (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
    - the time,
    - the place,
    - the name of the person who will conduct the tests,
    - and other information as required by the Department;

If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:

- (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
- (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
- (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
- (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.

**8. Notification, Reporting, and Recordkeeping (Continued)**

- (5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;
- C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)
- D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9549  
Fax: (515) 725-9501

- E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9545  
Fax: (515) 725-9502

- F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	DNR Field Office 6 1023 West Madison Washington, IA 52353 Telephone: (319) 653-2135 Fax: (319) 653-2856
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**9. Appeal Rights**

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

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Director Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319
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### 10. Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr <sup>1</sup>	tons/yr <sup>2</sup>	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	NA	NA	NA	NA
PM <sub>10</sub>	NA	NA	NA	NA
PM <sub>2.5</sub>	NA	NA	NA	NA
Opacity	NA	NA	NA	NA
Sulfur Dioxide (SO <sub>2</sub> )	0.067 <sup>3</sup>	NA	500 ppm <sub>v</sub>	RACT, 23.3(3)"e"
Nitrogen Oxides (NO <sub>x</sub> )	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	NA	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

- The emission limit is expressed as the average of three (3) runs.
- The emission limit is a twelve (12) month rolling total.
- The SO<sub>2</sub> limit is established to address the nonattainment designation for a portion of Muscatine County published in the Federal Register (78 FR 47191) on August 5, 2013. The nonattainment designation is for the 1-hour SO<sub>2</sub> primary national ambient air quality standard promulgated by EPA in 2010 (75 FR 35519, June 22, 2010).

### 11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	30 Feet
Discharge Style	Horizontal
Stack Opening (inches, diameter)	10.5 inches
Exhaust Temperature (°F)	73 °F
Exhaust Flowrate (scfm)	4170 scfm

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

### 12. Compliance Demonstration(s)

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	Performance Testing	NA
PM – State	No	Performance Testing	NA
PM <sub>10</sub>	No	Performance Testing	NA
PM <sub>2.5</sub>	No	Performance Testing	NA
Opacity	No	Performance Testing	NA
SO <sub>2</sub>	No	Performance Testing	NA
NO <sub>x</sub>	No	Performance Testing	NA
VOC	No	Performance Testing	NA
CO	No	Performance Testing	NA
Pb	No	Performance Testing	NA
HAP	No	Performance Testing	NA

**12. Compliance Demonstration(s) (Continued)**

**If an initial compliance demonstration specified above is testing**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 within one hundred and twenty days (120) days after the issuance date of this permit.

**If subsequent testing is specified above**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner’s authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM <sub>10</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
PM <sub>2.5</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO <sub>2</sub>	1 hour	40 CFR 60, Appendix A, Method 6C
NO <sub>x</sub>	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18, or 40 CFR 63, Appendix A, Method 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

Per 567 IAC 25.1(7)"a", at the Department’s request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

**13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability**

These emission units are not subject to any New Source Performance Standard or National Emission Standards for Hazardous Air Pollutants (NESHAP) at this time. There are no applicable subparts.

**14. Operating Limits**

Operating limits for this emission unit shall be:

- A. This permit establishes no operating limits for this emissions unit.
- 

**15. Operating Condition Monitoring and Recordkeeping**

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. This permit establishes no monitoring and recordkeeping requirements for this emissions unit.
- 

**16. Continuous Emission Monitoring**

Continuous emission monitoring is not required by this permit at this time.

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**17. Permit History**

Permit No.	Project No.	Description	Date	Stack Testing

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## 18. Description of Terms and Acronyms

*The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.*

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
PM <sub>2.5</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM <sub>10</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm <sub>v</sub>	parts per million by volume
ppm <sub>w</sub>	parts per million by weight
RACT	Reasonably Available Control Technology
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

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**END OF PERMIT**

# Iowa Department of Natural Resources Air Quality Construction Permit

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## Permit Holder

**Firm:** Grain Processing Corporation

**Contact:**

Mick Durham  
Director of Environmental Services

(563) 264-4569

1600 Oregon Street  
Muscatine, IA 52761

**Responsible Party:**

Ron Zitzow  
Senior Vice President

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## Permitted Equipment

**Emission Unit(s):** GP1: Gluten Filter No. 4 (EU1253.0)  
Maximum Capacity: 0.86 ton per hour gluten cake output

**Control Equipment:** None

**Emission Point:** EP271.0

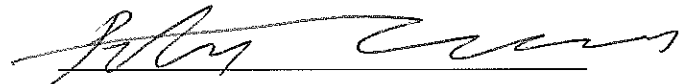
**Equipment Location:** 1600 Oregon Street  
Muscatine, IA 52761

**Plant Number:** 70-01-004

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Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Project No.	Description	Date	Stack Testing
15-A-206	15-362	Permit Unit to limit SO <sub>2</sub> emissions	02/15/16	No



Under the Direction of the Director of  
the Department of Natural Resources

## PERMIT CONDITIONS

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### 1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

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### 2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) "*Maintenance and Repair*".

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### 3. Transferability

As limited by 567 IAC 22.3(3)"f", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment<sup>1</sup> (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

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<sup>1</sup> A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

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### 4. Construction

#### A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.



#### 4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:

- (1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
- (2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
- (3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

#### B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:

- (1) Any changes are made to the final plans and specifications submitted for the proposed project; or
- (2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

#### C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:

- (1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
- (2) This current amendment becomes void.

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### 5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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### 6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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## 7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to \$10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

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## 8. Notification, Reporting, and Recordkeeping

- A. The owner or operator shall furnish the Department the following written notifications:
- (1) Per 567 IAC 22.3(3)"b":
    - (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
    - (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
  - (2) Per 567 IAC 22.3(3)"f", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
    - (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
    - (b) at least seven (7) days before equipment relocation.
  - (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324

and include the following information:

- The date of ownership change,
  - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
  - The construction permit number(s) of the equipment changing ownership.
- (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
- the time,
  - the place,
  - the name of the person who will conduct the tests,
  - and other information as required by the Department;

If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

- B. The owner or operator shall furnish the Department with the following reports:
- (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
  - (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
  - (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
  - (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.

**8. Notification, Reporting, and Recordkeeping (Continued)**

- (5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;
- C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)
- D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9549  
Fax: (515) 725-9501

- E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9545  
Fax: (515) 725-9502

- F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	DNR Field Office 6 1023 West Madison Washington, IA 52353 Telephone: (319) 653-2135 Fax: (319) 653-2856
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**9. Appeal Rights**

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

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Director Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319
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**10. Emission Limits**

The following emission limits shall not be exceeded:

Pollutant	lb/hr <sup>1</sup>	tons/yr <sup>2</sup>	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	NA	NA	NA	NA
PM <sub>10</sub>	NA	NA	NA	NA
PM <sub>2.5</sub>	NA	NA	NA	NA
Opacity	NA	NA	NA	NA
Sulfur Dioxide (SO <sub>2</sub> )	0.067 <sup>3</sup>	NA	500 ppm <sub>v</sub>	RACT, 23.3(3)"e"
Nitrogen Oxides (NO <sub>x</sub> )	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	NA	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

1. The emission limit is expressed as the average of three (3) runs.
2. The emission limit is a twelve (12) month rolling total.
3. The SO<sub>2</sub> limit is established to address the nonattainment designation for a portion of Muscatine County published in the Federal Register (78 FR 47191) on August 5, 2013. The nonattainment designation is for the 1-hour SO<sub>2</sub> primary national ambient air quality standard promulgated by EPA in 2010 (75 FR 35519, June 22, 2010).

**11. Emission Point Characteristics**

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	40 Feet
Discharge Style	Horizontal
Stack Opening (inches, diameter)	10.5 inches
Exhaust Temperature (°F)	73 °F
Exhaust Flowrate (scfm)	4170 scfm

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**12. Compliance Demonstration(s)**

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	Performance Testing	NA
PM – State	No	Performance Testing	NA
PM <sub>10</sub>	No	Performance Testing	NA
PM <sub>2.5</sub>	No	Performance Testing	NA
Opacity	No	Performance Testing	NA
SO <sub>2</sub>	No	Performance Testing	NA
NO <sub>x</sub>	No	Performance Testing	NA
VOC	No	Performance Testing	NA
CO	No	Performance Testing	NA
Pb	No	Performance Testing	NA
HAP	No	Performance Testing	NA

**12. Compliance Demonstration(s) (Continued)**

**If an initial compliance demonstration specified above is testing**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 within one hundred and twenty days (120) days after the issuance date of this permit.

**If subsequent testing is specified above**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner’s authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

<b>Pollutant</b>	<b>Test Run Time</b>	<b>Test Method</b>
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM <sub>10</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
PM <sub>2.5</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO <sub>2</sub>	1 hour	40 CFR 60, Appendix A, Method 6C
NO <sub>x</sub>	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18, or 40 CFR 63, Appendix A, Method 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

Per 567 IAC 25.1(7)"a", at the Department’s request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

**13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability**

These emission units are not subject to any New Source Performance Standard or National Emission Standards for Hazardous Air Pollutants (NESHAP) at this time. There are no applicable subparts.

**14. Operating Limits**

Operating limits for this emission unit shall be:

- A. This permit establishes no operating limits for this emissions unit.
- 

**15. Operating Condition Monitoring and Recordkeeping**

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. This permit establishes no monitoring and recordkeeping requirements for this emissions unit.
- 

**16. Continuous Emission Monitoring**

Continuous emission monitoring is not required by this permit at this time.

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**17. Permit History**

Permit No.	Project No.	Description	Date	Stack Testing

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## 18. Description of Terms and Acronyms

*The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.*

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
PM <sub>2.5</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM <sub>10</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm <sub>v</sub>	parts per million by volume
ppm <sub>w</sub>	parts per million by weight
RACT	Reasonably Available Control Technology
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

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**END OF PERMIT**

# Iowa Department of Natural Resources

## Air Quality Construction Permit

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### Permit Holder

**Firm:** Grain Processing Corporation

**Contact:**

Mick Durham  
Director of Environmental Services

(563) 264-4569

1600 Oregon Street  
Muscatine, IA 52761

**Responsible Party:**

Ron Zitzow  
Senior Vice President

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### Permitted Equipment

**Emission Unit(s):** GP1: Gluten Filter No. 5 (EU1254.0)  
Maximum Capacity: 0.86 ton per hour gluten cake output

**Control Equipment:** None

**Emission Point:** EP272.0

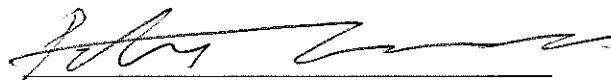
**Equipment Location:** 1600 Oregon Street  
Muscatine, IA 52761

**Plant Number:** 70-01-004

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Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Project No.	Description	Date	Stack Testing
15-A-207	15-362	Permit Unit to limit SO <sub>2</sub> emissions	02/15/16	No



Under the Direction of the Director of  
the Department of Natural Resources



## PERMIT CONDITIONS

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### 1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

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### 2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) "*Maintenance and Repair*".

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### 3. Transferability

As limited by 567 IAC 22.3(3)"P", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment<sup>1</sup> (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

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<sup>1</sup> A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

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### 4. Construction

#### A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

#### 4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:

- (1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
- (2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
- (3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

#### B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:

- (1) Any changes are made to the final plans and specifications submitted for the proposed project; or
- (2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

#### C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:

- (1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
- (2) This current amendment becomes void.

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### 5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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### 6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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## 7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to \$10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

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## 8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:

- (1) Per 567 IAC 22.3(3)"b":
  - (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
  - (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
- (2) Per 567 IAC 22.3(3)"P", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
  - (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
  - (b) at least seven (7) days before equipment relocation.
- (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324

and include the following information:

- The date of ownership change,
  - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
  - The construction permit number(s) of the equipment changing ownership.
- (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
    - the time,
    - the place,
    - the name of the person who will conduct the tests,
    - and other information as required by the Department;

If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:

- (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
- (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
- (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
- (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.

**8. Notification, Reporting, and Recordkeeping (Continued)**

- (5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;
- C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)
- D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9549  
Fax: (515) 725-9501

- E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9545  
Fax: (515) 725-9502

- F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	DNR Field Office 6 1023 West Madison Washington, IA 52353 Telephone: (319) 653-2135 Fax: (319) 653-2856
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**9. Appeal Rights**

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

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Director Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319
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## 10. Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr <sup>1</sup>	tons/yr <sup>2</sup>	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	NA	NA	NA	NA
PM <sub>10</sub>	NA	NA	NA	NA
PM <sub>2.5</sub>	NA	NA	NA	NA
Opacity	NA	NA	NA	NA
Sulfur Dioxide (SO <sub>2</sub> )	0.067 <sup>3</sup>	NA	500 ppm <sub>v</sub>	RACT, 23.3(3)"e"
Nitrogen Oxides (NO <sub>x</sub> )	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	NA	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

- The emission limit is expressed as the average of three (3) runs.
- The emission limit is a twelve (12) month rolling total.
- The SO<sub>2</sub> limit is established to address the nonattainment designation for a portion of Muscatine County published in the Federal Register (78 FR 47191) on August 5, 2013. The nonattainment designation is for the 1-hour SO<sub>2</sub> primary national ambient air quality standard promulgated by EPA in 2010 (75 FR 35519, June 22, 2010).

## 11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	39.5 Feet
Discharge Style	Horizontal
Stack Opening (inches, diameter)	10.5 inches
Exhaust Temperature (°F)	73 °F
Exhaust Flowrate (scfm)	4170 scfm

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

## 12. Compliance Demonstration(s)

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	Performance Testing	NA
PM – State	No	Performance Testing	NA
PM <sub>10</sub>	No	Performance Testing	NA
PM <sub>2.5</sub>	No	Performance Testing	NA
Opacity	No	Performance Testing	NA
SO <sub>2</sub>	No	Performance Testing	NA
NO <sub>x</sub>	No	Performance Testing	NA
VOC	No	Performance Testing	NA
CO	No	Performance Testing	NA
Pb	No	Performance Testing	NA
HAP	No	Performance Testing	NA

**12. Compliance Demonstration(s) (Continued)**

If an initial compliance demonstration specified above is testing, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 within one hundred and twenty days (120) days after the issuance date of this permit.

If subsequent testing is specified above, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner’s authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM <sub>10</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
PM <sub>2.5</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO <sub>2</sub>	1 hour	40 CFR 60, Appendix A, Method 6C
NO <sub>x</sub>	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18, or 40 CFR 63, Appendix A, Method 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

Per 567 IAC 25.1(7)"a", at the Department’s request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

**13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability**

These emission units are not subject to any New Source Performance Standard or National Emission Standards for Hazardous Air Pollutants (NESHAP) at this time. There are no applicable subparts.

**14. Operating Limits**

Operating limits for this emission unit shall be:

- A. This permit establishes no operating limits for this emissions unit.
- 

**15. Operating Condition Monitoring and Recordkeeping**

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. This permit establishes no monitoring and recordkeeping requirements for this emissions unit.
- 

**16. Continuous Emission Monitoring**

Continuous emission monitoring is not required by this permit at this time.

---

**17. Permit History**

Permit No.	Project No.	Description	Date	Stack Testing

---

## 18. Description of Terms and Acronyms

*The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.*

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
PM <sub>2.5</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM <sub>10</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm <sub>v</sub>	parts per million by volume
ppm <sub>w</sub>	parts per million by weight
RACT	Reasonably Available Control Technology
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

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**END OF PERMIT**



# Iowa Department of Natural Resources

## Air Quality Construction Permit

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### Permit Holder

**Firm:** Grain Processing Corporation

**Contact:**

Mick Durham  
Director of Environmental Services

(563) 264-4569

1600 Oregon Street  
Muscatine, IA 52761

**Responsible Party:**

Ron Zitzow  
Senior Vice President

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### Permitted Equipment

**Emission Unit(s):** Starch Building (EU2433.0)  
Maximum Capacity: Five exhaust fans rated at 100,000 SCFM

**Control Equipment:** None

**Emission Point:** EP278.0

**Equipment Location:** 1600 Oregon Street  
Muscatine, IA 52761

**Plant Number:** 70-01-004

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Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Project No.	Description	Date	Stack Testing
15-A-208	15-050	Permit Unit to limit SO <sub>2</sub> emissions	12/10/15	No



Under the Direction of the Director of  
the Department of Natural Resources

## PERMIT CONDITIONS

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### 1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

---

### 2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) "*Maintenance and Repair*".

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### 3. Transferability

As limited by 567 IAC 22.3(3)"F", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment<sup>1</sup> (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

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<sup>1</sup> A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

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### 4. Construction

#### A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

#### 4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:

- (1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
- (2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
- (3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

##### B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:

- (1) Any changes are made to the final plans and specifications submitted for the proposed project; or
- (2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

##### C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:

- (1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
- (2) This current amendment becomes void.

---

#### 5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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#### 6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

---

## 7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to \$10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

---

## 8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:

- (1) Per 567 IAC 22.3(3)"b":
  - (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
  - (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
- (2) Per 567 IAC 22.3(3)"F", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
  - (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
  - (b) at least seven (7) days before equipment relocation.
- (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324

and include the following information:

- The date of ownership change,
  - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
  - The construction permit number(s) of the equipment changing ownership.
- (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
- the time,
  - the place,
  - the name of the person who will conduct the tests,
  - and other information as required by the Department;

If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:

- (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
- (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
- (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
- (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.

### 8. Notification, Reporting, and Recordkeeping (Continued)

(5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;

C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)

D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9549  
Fax: (515) 725-9501

E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9545  
Fax: (515) 725-9502

F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	DNR Field Office 6 1023 West Madison Washington, IA 52353 Telephone: (319) 653-2135 Fax: (319) 653-2856
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### 9. Appeal Rights

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

Director Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319
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## 10. Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr <sup>1</sup>	tons/yr <sup>2</sup>	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	NA	NA	NA	NA
PM <sub>10</sub>	NA	NA	NA	NA
PM <sub>2.5</sub>	NA	NA	NA	NA
Opacity	NA	NA	NA	NA
Sulfur Dioxide (SO <sub>2</sub> )	0.10 <sup>3</sup>	NA	500 ppm <sub>v</sub>	RACT, 23.3(3)"e"
Nitrogen Oxides (NO <sub>x</sub> )	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	NA	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

1. The emission limit is expressed as the average of three (3) runs.
2. The emission limit is a twelve (12) month rolling total.
3. The SO<sub>2</sub> limit is established to address the nonattainment designation for a portion of Muscatine County published in the Federal Register (78 FR 47191) on August 5, 2013. The nonattainment designation is for the 1-hour SO<sub>2</sub> primary national ambient air quality standard promulgated by EPA in 2010 (75 FR 35519, June 22, 2010).

## 11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	NA
Discharge Style	NA
Stack Opening (inches, diameter)	NA
Exhaust Temperature (°F)	68 °F
Exhaust Flowrate (scfm)	100,000 scfm

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**12. Compliance Demonstration(s)**

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	Performance Testing	NA
PM – State	No	Performance Testing	NA
PM <sub>10</sub>	No	Performance Testing	NA
PM <sub>2.5</sub>	No	Performance Testing	NA
Opacity	No	Performance Testing	NA
SO <sub>2</sub>	No	Performance Testing	NA
NO <sub>x</sub>	No	Performance Testing	NA
VOC	No	Performance Testing	NA
CO	No	Performance Testing	NA
Pb	No	Performance Testing	NA
HAP	No	Performance Testing	NA

**If an initial compliance demonstration specified above is testing**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 within within ninety (90) days after the issuance date of this permit.

**If subsequent testing is specified above**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner’s authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM <sub>10</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
PM <sub>2.5</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO <sub>2</sub>	1 hour	40 CFR 60, Appendix A, Method 6C
NO <sub>x</sub>	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18 or 40 CFR 63, Appendix A, Method 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

Per 567 IAC 25.1(7)“a”, at the Department’s request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

**12. Compliance Demonstration(s) (Continued)**

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

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**13. New Source Performance Standards (NSPS) and  
National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability**

These emission units are not subject to any New Source Performance Standard or National Emission Standards for Hazardous Air Pollutants (NESHAP) at this time. There are no applicable subparts.

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**14. Operating Limits**

Operating limits for this emission unit shall be:

- A. This permit establishes no operating limits for this emissions unit.
- 

**15. Operating Condition Monitoring and Recordkeeping**

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. This permit establishes no Operating Condition Monitoring and Recordkeeping for this emissions unit.
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**16. Continuous Emission Monitoring**

Continuous emission monitoring is not required by this permit at this time.

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**17. Permit History**

Permit No.	Project No.	Description	Date	Stack Testing

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## 18. Description of Terms and Acronyms

*The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.*

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
PM <sub>2.5</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM <sub>10</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm <sub>v</sub>	parts per million by volume
ppm <sub>w</sub>	parts per million by weight
RACT	Reasonably Available Control Technology
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

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**END OF PERMIT**

# Iowa Department of Natural Resources

## Air Quality Construction Permit

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### Permit Holder

**Firm:** Grain Processing Corporation

**Contact:**

Mick Durham  
Director of Environmental Services

(563) 264-4569

1600 Oregon Street  
Muscatine, IA 52761

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**Responsible Party:**

Ron Zitzow  
Senior Vice President

### Permitted Equipment

**Emission Unit(s):** Wet Mill Bins Nos. 1-6 (EU2895.1 – EU2895.6)  
Maximum Capacity: 40 tons/hr (each bin)

**Control Equipment:** Spray Chamber Scrubber (CE2895-1)

**Emission Point:** EP279.0

**Equipment Location:** 1600 Oregon Street  
Muscatine, IA 52761

**Plant Number:** 70-01-004

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Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Project No.	Description	Date	Stack Testing
15-A-209	15-050	Permit Units to limit SO <sub>2</sub> emissions; add scrubber	12/10/15	Yes



Under the Direction of the Director of  
the Department of Natural Resources

## PERMIT CONDITIONS

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### 1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

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### 2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) "*Maintenance and Repair*".

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### 3. Transferability

As limited by 567 IAC 22.3(3)"f", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment<sup>1</sup> (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

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<sup>1</sup> A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

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### 4. Construction

#### A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

#### 4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:

- (1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
- (2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
- (3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

##### B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:

- (1) Any changes are made to the final plans and specifications submitted for the proposed project; or
- (2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

##### C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:

- (1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
- (2) This current amendment becomes void.

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#### 5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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#### 6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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## 7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to \$10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

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## 8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:

- (1) Per 567 IAC 22.3(3)"b":
  - (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
  - (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
- (2) Per 567 IAC 22.3(3)"F", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
  - (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
  - (b) at least seven (7) days before equipment relocation.
- (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324

and include the following information:

- The date of ownership change,
  - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
  - The construction permit number(s) of the equipment changing ownership.
- (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
- the time,
  - the place,
  - the name of the person who will conduct the tests,
  - and other information as required by the Department;

If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:

- (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
- (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
- (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
- (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.

### 8. Notification, Reporting, and Recordkeeping (Continued)

(5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;

C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)

D. The owner or operator shall send correspondence regarding this permit to the following address:

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Fax: (515) 725-9502

F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	DNR Field Office 6 1023 West Madison Washington, IA 52353 Telephone: (319) 653-2135 Fax: (319) 653-2856
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All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

Director Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319
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## 10. Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr <sup>1</sup>	tons/yr <sup>2</sup>	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	NA	NA	NA	NA
PM <sub>10</sub>	NA	NA	NA	NA
PM <sub>2.5</sub>	NA	NA	NA	NA
Opacity	NA	NA	NA	NA
Sulfur Dioxide (SO <sub>2</sub> )	0.87 <sup>3</sup>	NA	500 ppm <sub>v</sub>	RACT, 23.3(3)"e"
Nitrogen Oxides (NO <sub>x</sub> )	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	NA	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

1. The emission limit is expressed as the average of three (3) runs.
2. The emission limit is a twelve (12) month rolling total.
3. The SO<sub>2</sub> limit is established to address the nonattainment designation for a portion of Muscatine County published in the Federal Register (78 FR 47191) on August 5, 2013. The nonattainment designation is for the 1-hour SO<sub>2</sub> primary national ambient air quality standard promulgated by EPA in 2010 (75 FR 35519, June 22, 2010).

## 11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	80 Feet
Discharge Style	Vertical Unobstructed
Stack Opening (inches, diameter)	36 inches
Exhaust Temperature (°F)	68 °F
Exhaust Flowrate (scfm)	20,018 scfm

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**12. Compliance Demonstration(s)**

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	Performance Testing	NA
PM – State	No	Performance Testing	NA
PM <sub>10</sub>	No	Performance Testing	NA
PM <sub>2.5</sub>	No	Performance Testing	NA
Opacity	No	Performance Testing	NA
SO <sub>2</sub>	Yes	Performance Testing	Once Every 3 Calendar Years <sup>1</sup>
NO <sub>x</sub>	No	Performance Testing	NA
VOC	No	Performance Testing	NA
CO	No	Performance Testing	NA
Pb	No	Performance Testing	NA
HAP	No	Performance Testing	NA

<sup>1</sup> After the initial performance test, performance testing for SO<sub>2</sub> shall be conducted once every 3 calendar years. After completion of three consecutive performance tests that demonstrate compliance with the SO<sub>2</sub> emission limit in condition 10, the owner or operator may request to modify the performance testing frequency for SO<sub>2</sub>.

**If an initial compliance demonstration specified above is testing**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 for SO<sub>2</sub> within one hundred and twenty (120) days after installation of the Spray Chamber Scrubber (CE2895-1) is completed.

**If subsequent testing is specified above**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner’s authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM <sub>10</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
PM <sub>2.5</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO <sub>2</sub>	1 hour	40 CFR 60, Appendix A, Method 6C
NO <sub>x</sub>	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18 or 40 CFR 63, Appendix A, Method 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

Per 567 IAC 25.1(7)“a”, at the Department’s request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.



## **12. Compliance Demonstration(s) (Continued)**

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

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## **13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability**

These emission units are not subject to any New Source Performance Standard or National Emission Standards for Hazardous Air Pollutants (NESHAP) at this time. There are no applicable subparts.

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## **14. Operating Limits**

Operating limits for this emission unit shall be:

- A. The Spray Chamber Scrubber (CE2895-1) shall be installed by March 31, 2018 to control SO<sub>2</sub> emissions from Wet Milling Bins 1-6.
  - B. No later than 60 days prior to initiating modification of Wet Milling Bins 1-6 by installing the Spray Chamber Scrubber (CE2895-1), the owner or operator shall apply to modify this construction permit. In the application, the owner or operator shall include, at a minimum, the following information to the Department: the manufacturer and model number of the scrubber, the total liquor flow rate to the scrubber, the recycled liquor flow rate to the scrubber, the pH of the liquor used in the scrubber, the reagents used in the liquor of the scrubber, the pressure drop range across the scrubber, the pollutants controlled and an estimate of the scrubber's control efficiency for the different air pollutants.
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## **15. Operating Condition Monitoring and Recordkeeping**

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. The owner or operator shall maintain a record of the completion date for the installation of the Spray Chamber Scrubber (CE2895-1).
  - B. The owner or operator shall develop for the Spray Chamber Scrubber (CE2895-1) a monitoring system that will monitor and record continuously scrubber operating parameters to ensure continuous compliance with the emission limits. Such parameters shall include, but are not limited to, the total liquor flow rate to the scrubber, the pressure drop across the scrubber, and the pH of the scrubber's liquor.
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## **16. Continuous Emission Monitoring**

Continuous emission monitoring is not required by this permit at this time.

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**17. Permit History**

Permit No.	Project No.	Description	Date	Stack Testing

**18. Description of Terms and Acronyms**

*The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.*

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
PM <sub>2.5</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM <sub>10</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm <sub>v</sub>	parts per million by volume
ppm <sub>w</sub>	parts per million by weight
RACT	Reasonably Available Control Technology
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

**END OF PERMIT**

# Iowa Department of Natural Resources Air Quality Construction Permit

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## Permit Holder

**Firm:** Grain Processing Corporation

**Contact:**

Mick Durham  
Director of Environmental Services

(563) 264-4569

1600 Oregon Street  
Muscatine, IA 52761

**Responsible Party:**

Ron Zitzow  
Senior Vice President

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## Permitted Equipment

**Emission Unit(s):** GP1: Gluten Filter No. 6 (EU1255.6)  
Maximum Capacity: 0.86 ton per hour gluten cake output

**Control Equipment:** None

**Emission Point:** EP283.0

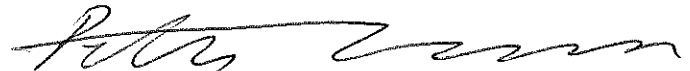
**Equipment Location:** 1600 Oregon Street  
Muscatine, IA 52761

**Plant Number:** 70-01-004

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Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Project No.	Description	Date	Stack Testing
15-A-480	15-362	Permit Unit to limit SO <sub>2</sub> emissions	02/15/16	No



Under the Direction of the Director of  
the Department of Natural Resources

## PERMIT CONDITIONS

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### 1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

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### 2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) "*Maintenance and Repair*".

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### 3. Transferability

As limited by 567 IAC 22.3(3)"f", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment<sup>1</sup> (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

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<sup>1</sup> A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

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### 4. Construction

#### A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

#### 4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:

- (1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
- (2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
- (3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

#### B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:

- (1) Any changes are made to the final plans and specifications submitted for the proposed project; or
- (2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

#### C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:

- (1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
- (2) This current amendment becomes void.

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### 5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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### 6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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## 7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to \$10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

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## 8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:

- (1) Per 567 IAC 22.3(3)"b":
  - (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
  - (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
- (2) Per 567 IAC 22.3(3)"f", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
  - (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
  - (b) at least seven (7) days before equipment relocation.
- (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324

and include the following information:

- The date of ownership change,
  - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
  - The construction permit number(s) of the equipment changing ownership.
- (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
    - the time,
    - the place,
    - the name of the person who will conduct the tests,
    - and other information as required by the Department;

If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:

- (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
- (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
- (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
- (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.

**8. Notification, Reporting, and Recordkeeping (Continued)**

- (5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;
- C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)
- D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9549  
Fax: (515) 725-9501

- E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9545  
Fax: (515) 725-9502

- F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	DNR Field Office 6 1023 West Madison Washington, IA 52353 Telephone: (319) 653-2135 Fax: (319) 653-2856
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**9. Appeal Rights**

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

Director Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319
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### 10. Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr <sup>1</sup>	tons/yr <sup>2</sup>	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	NA	NA	NA	NA
PM <sub>10</sub>	NA	NA	NA	NA
PM <sub>2.5</sub>	NA	NA	NA	NA
Opacity	NA	NA	NA	NA
Sulfur Dioxide (SO <sub>2</sub> )	0.067 <sup>3</sup>	NA	500 ppm <sub>v</sub>	RACT, 23.3(3)"e"
Nitrogen Oxides (NO <sub>x</sub> )	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	NA	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

1. The emission limit is expressed as the average of three (3) runs.
2. The emission limit is a twelve (12) month rolling total.
3. The SO<sub>2</sub> limit is established to address the nonattainment designation for a portion of Muscatine County published in the Federal Register (78 FR 47191) on August 5, 2013. The nonattainment designation is for the 1-hour SO<sub>2</sub> primary national ambient air quality standard promulgated by EPA in 2010 (75 FR 35519, June 22, 2010).

### 11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	65.5 Feet
Discharge Style	Horizontal
Stack Opening (inches, diameter)	10.5 inches
Exhaust Temperature (°F)	73 °F
Exhaust Flowrate (scfm)	4170 scfm

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

### 12. Compliance Demonstration(s)

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	Performance Testing	NA
PM – State	No	Performance Testing	NA
PM <sub>10</sub>	No	Performance Testing	NA
PM <sub>2.5</sub>	No	Performance Testing	NA
Opacity	No	Performance Testing	NA
SO <sub>2</sub>	No	Performance Testing	NA
NO <sub>x</sub>	No	Performance Testing	NA
VOC	No	Performance Testing	NA
CO	No	Performance Testing	NA
Pb	No	Performance Testing	NA
HAP	No	Performance Testing	NA



**12. Compliance Demonstration(s) (Continued)**

**If an initial compliance demonstration specified above is testing**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 within one hundred and twenty days (120) days after the issuance date of this permit.

**If subsequent testing is specified above**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner’s authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM <sub>10</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
PM <sub>2.5</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO <sub>2</sub>	1 hour	40 CFR 60, Appendix A, Method 6C
NO <sub>x</sub>	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18, or 40 CFR 63, Appendix A, Method 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

Per 567 IAC 25.1(7)“a”, at the Department’s request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

**13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability**

These emission units are not subject to any New Source Performance Standard or National Emission Standards for Hazardous Air Pollutants (NESHAP) at this time. There are no applicable subparts.

**14. Operating Limits**

Operating limits for this emission unit shall be:

- A. This permit establishes no operating limits for this emissions unit.
- 

**15. Operating Condition Monitoring and Recordkeeping**

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. This permit establishes no monitoring and recordkeeping requirements for this emissions unit.
- 

**16. Continuous Emission Monitoring**

Continuous emission monitoring is not required by this permit at this time.

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**17. Permit History**

<b>Permit No.</b>	<b>Project No.</b>	<b>Description</b>	<b>Date</b>	<b>Stack Testing</b>

---

## 18. Description of Terms and Acronyms

*The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.*

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
PM <sub>2.5</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM <sub>10</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm <sub>v</sub>	parts per million by volume
ppm <sub>w</sub>	parts per million by weight
RACT	Reasonably Available Control Technology
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

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**END OF PERMIT**

# Iowa Department of Natural Resources Air Quality Construction Permit

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## Permit Holder

**Firm:** Grain Processing Corporation

**Contact:**

Mick Durham  
Director of Environmental Services

(563) 264-4569

1600 Oregon Street  
Muscatine, IA 52761

**Responsible Party:**

Ron Zitzow  
Senior Vice President

1600 Oregon Street  
Muscatine, IA 52761

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## Permitted Equipment

**Emission Unit(s):** GP1: Gluten Filter No. 7 (EU1255.7)  
Maximum Capacity: 0.86 ton per hour gluten cake output

**Control Equipment:** None

**Emission Point:** EP284.0

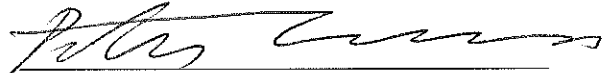
**Equipment Location:** 1600 Oregon Street  
Muscatine, IA 52761

**Plant Number:** 70-01-004

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Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Project No.	Description	Date	Stack Testing
15-A-481	15-362	Permit Unit to limit SO <sub>2</sub> emissions	02/15/16	No



Under the Direction of the Director of  
the Department of Natural Resources

## PERMIT CONDITIONS

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### 1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

---

### 2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) "*Maintenance and Repair*".

---

### 3. Transferability

As limited by 567 IAC 22.3(3)"f", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment<sup>1</sup> (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

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<sup>1</sup> A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

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### 4. Construction

#### A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

#### 4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:

- (1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
- (2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
- (3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

#### B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:

- (1) Any changes are made to the final plans and specifications submitted for the proposed project; or
- (2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

#### C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:

- (1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
- (2) This current amendment becomes void.

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### 5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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### 6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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## 7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to \$10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

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## 8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:

- (1) Per 567 IAC 22.3(3)"b":
  - (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
  - (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
- (2) Per 567 IAC 22.3(3)"f", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
  - (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
  - (b) at least seven (7) days before equipment relocation.
- (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324

and include the following information:

- The date of ownership change,
  - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
  - The construction permit number(s) of the equipment changing ownership.
- (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
- the time,
  - the place,
  - the name of the person who will conduct the tests,
  - and other information as required by the Department;

If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:

- (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
- (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
- (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
- (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.

**8. Notification, Reporting, and Recordkeeping (Continued)**

- (5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;
- C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)
- D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9549  
Fax: (515) 725-9501

- E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9545  
Fax: (515) 725-9502

- F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	DNR Field Office 6 1023 West Madison Washington, IA 52353 Telephone: (319) 653-2135 Fax: (319) 653-2856
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**9. Appeal Rights**

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

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Director Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319
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**10. Emission Limits**

The following emission limits shall not be exceeded:

Pollutant	lb/hr <sup>1</sup>	tons/yr <sup>2</sup>	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	NA	NA	NA	NA
PM <sub>10</sub>	NA	NA	NA	NA
PM <sub>2.5</sub>	NA	NA	NA	NA
Opacity	NA	NA	NA	NA
Sulfur Dioxide (SO <sub>2</sub> )	0.067 <sup>3</sup>	NA	500 ppm <sub>v</sub>	RACT, 23.3(3)"e"
Nitrogen Oxides (NO <sub>x</sub> )	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	NA	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

1. The emission limit is expressed as the average of three (3) runs.
2. The emission limit is a twelve (12) month rolling total.
3. The SO<sub>2</sub> limit is established to address the nonattainment designation for a portion of Muscatine County published in the Federal Register (78 FR 47191) on August 5, 2013. The nonattainment designation is for the 1-hour SO<sub>2</sub> primary national ambient air quality standard promulgated by EPA in 2010 (75 FR 35519, June 22, 2010).

**11. Emission Point Characteristics**

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	66 Feet
Discharge Style	Horizontal
Stack Opening (inches, diameter)	10.5 inches
Exhaust Temperature (°F)	73 °F
Exhaust Flowrate (scfm)	4170 scfm

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**12. Compliance Demonstration(s)**

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	Performance Testing	NA
PM – State	No	Performance Testing	NA
PM <sub>10</sub>	No	Performance Testing	NA
PM <sub>2.5</sub>	No	Performance Testing	NA
Opacity	No	Performance Testing	NA
SO <sub>2</sub>	No	Performance Testing	NA
NO <sub>x</sub>	No	Performance Testing	NA
VOC	No	Performance Testing	NA
CO	No	Performance Testing	NA
Pb	No	Performance Testing	NA
HAP	No	Performance Testing	NA

**12. Compliance Demonstration(s) (Continued)**

**If an initial compliance demonstration specified above is testing**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 within one hundred and twenty days (120) days after the issuance date of this permit.

**If subsequent testing is specified above**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner’s authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

<b>Pollutant</b>	<b>Test Run Time</b>	<b>Test Method</b>
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM <sub>10</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
PM <sub>2.5</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO <sub>2</sub>	1 hour	40 CFR 60, Appendix A, Method 6C
NO <sub>x</sub>	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18, or 40 CFR 63, Appendix A, Method 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

Per 567 IAC 25.1(7)“a”, at the Department’s request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

**13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability**

These emission units are not subject to any New Source Performance Standard or National Emission Standards for Hazardous Air Pollutants (NESHAP) at this time. There are no applicable subparts.

**14. Operating Limits**

Operating limits for this emission unit shall be:

- A. This permit establishes no operating limits for this emissions unit.
- 

**15. Operating Condition Monitoring and Recordkeeping**

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. This permit establishes no monitoring and recordkeeping requirements for this emissions unit.
- 

**16. Continuous Emission Monitoring**

Continuous emission monitoring is not required by this permit at this time.

---

**17. Permit History**

Permit No.	Project No.	Description	Date	Stack Testing

---

## 18. Description of Terms and Acronyms

*The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.*

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
PM <sub>2.5</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM <sub>10</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm <sub>v</sub>	parts per million by volume
ppm <sub>w</sub>	parts per million by weight
RACT	Reasonably Available Control Technology
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

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**END OF PERMIT**

# Iowa Department of Natural Resources

## Air Quality Construction Permit

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### Permit Holder

**Firm:** Grain Processing Corporation

**Contact:**

Mick Durham  
Director of Environmental Services

(563) 264-4569

1600 Oregon Street  
Muscatine, IA 52761

**Responsible Party:**

Ron Zitzow  
Senior Vice President

1600 Oregon Street  
Muscatine, IA 52761

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### Permitted Equipment

**Emission Unit(s):** GPI: Gluten Filter No. 8 (EU1255.8)  
Maximum Capacity: 0.86 ton per hour gluten cake output

**Control Equipment:** None

**Emission Point:** EP285.0

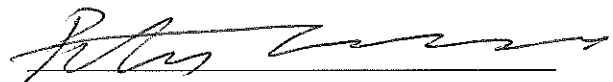
**Equipment Location:** 1600 Oregon Street  
Muscatine, IA 52761

**Plant Number:** 70-01-004

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Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Project No.	Description	Date	Stack Testing
15-A-482	15-362	Permit Unit to limit SO <sub>2</sub> emissions	02/15/16	No



Under the Direction of the Director of  
the Department of Natural Resources

## PERMIT CONDITIONS

---

### 1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

---

### 2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) "*Maintenance and Repair*".

---

### 3. Transferability

As limited by 567 IAC 22.3(3)"f", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment<sup>1</sup> (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

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<sup>1</sup> A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

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### 4. Construction

#### A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

#### 4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:

- (1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
- (2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
- (3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

#### B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:

- (1) Any changes are made to the final plans and specifications submitted for the proposed project; or
- (2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

#### C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:

- (1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
- (2) This current amendment becomes void.

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### 5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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### 6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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## 7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to \$10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

---

## 8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:

- (1) Per 567 IAC 22.3(3)"b":
  - (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
  - (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
- (2) Per 567 IAC 22.3(3)"f", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
  - (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
  - (b) at least seven (7) days before equipment relocation.
- (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324

and include the following information:

- The date of ownership change,
  - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
  - The construction permit number(s) of the equipment changing ownership.
- (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
- the time,
  - the place,
  - the name of the person who will conduct the tests,
  - and other information as required by the Department;

If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:

- (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
- (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
- (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
- (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.



**8. Notification, Reporting, and Recordkeeping (Continued)**

- (5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;
- C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)
- D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9549  
Fax: (515) 725-9501

- E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9545  
Fax: (515) 725-9502

- F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	DNR Field Office 6 1023 West Madison Washington, IA 52353 Telephone: (319) 653-2135 Fax: (319) 653-2856
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**9. Appeal Rights**

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

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Director Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319
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### 10. Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr <sup>1</sup>	tons/yr <sup>2</sup>	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	NA	NA	NA	NA
PM <sub>10</sub>	NA	NA	NA	NA
PM <sub>2.5</sub>	NA	NA	NA	NA
Opacity	NA	NA	NA	NA
Sulfur Dioxide (SO <sub>2</sub> )	0.067 <sup>3</sup>	NA	500 ppm <sub>v</sub>	RACT, 23.3(3) <sup>3e</sup>
Nitrogen Oxides (NO <sub>x</sub> )	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	NA	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

- The emission limit is expressed as the average of three (3) runs.
- The emission limit is a twelve (12) month rolling total.
- The SO<sub>2</sub> limit is established to address the nonattainment designation for a portion of Muscatine County published in the Federal Register (78 FR 47191) on August 5, 2013. The nonattainment designation is for the 1-hour SO<sub>2</sub> primary national ambient air quality standard promulgated by EPA in 2010 (75 FR 35519, June 22, 2010).

### 11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	66 Feet
Discharge Style	Horizontal
Stack Opening (inches, diameter)	10.5 inches
Exhaust Temperature (°F)	73 °F
Exhaust Flowrate (scfm)	4170 scfm

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

### 12. Compliance Demonstration(s)

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	Performance Testing	NA
PM – State	No	Performance Testing	NA
PM <sub>10</sub>	No	Performance Testing	NA
PM <sub>2.5</sub>	No	Performance Testing	NA
Opacity	No	Performance Testing	NA
SO <sub>2</sub>	No	Performance Testing	NA
NO <sub>x</sub>	No	Performance Testing	NA
VOC	No	Performance Testing	NA
CO	No	Performance Testing	NA
Pb	No	Performance Testing	NA
HAP	No	Performance Testing	NA

**12. Compliance Demonstration(s) (Continued)**

**If an initial compliance demonstration specified above is testing**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 within one hundred and twenty days (120) days after the issuance date of this permit.

**If subsequent testing is specified above**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner’s authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM <sub>10</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
PM <sub>2.5</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO <sub>2</sub>	1 hour	40 CFR 60, Appendix A, Method 6C
NO <sub>x</sub>	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18, or 40 CFR 63, Appendix A, Method 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

Per 567 IAC 25.1(7)“a”, at the Department’s request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

**13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability**

These emission units are not subject to any New Source Performance Standard or National Emission Standards for Hazardous Air Pollutants (NESHAP) at this time. There are no applicable subparts.

**14. Operating Limits**

Operating limits for this emission unit shall be:

- A. This permit establishes no operating limits for this emissions unit.
- 

**15. Operating Condition Monitoring and Recordkeeping**

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. This permit establishes no monitoring and recordkeeping requirements for this emissions unit.
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**16. Continuous Emission Monitoring**

Continuous emission monitoring is not required by this permit at this time.

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**17. Permit History**

Permit No.	Project No.	Description	Date	Stack Testing

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## 18. Description of Terms and Acronyms

*The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.*

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
PM <sub>2.5</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM <sub>10</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm <sub>v</sub>	parts per million by volume
ppm <sub>w</sub>	parts per million by weight
RACT	Reasonably Available Control Technology
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

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**END OF PERMIT**

# Iowa Department of Natural Resources Air Quality Construction Permit

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## Permit Holder

**Firm:** Grain Processing Corporation

**Contact:**

Mick Durham  
Director of Environmental Services

(563) 264-4569

1600 Oregon Street  
Muscatine, IA 52761

**Responsible Party:**

Ron Zitzow  
Senior Vice President

1600 Oregon Street  
Muscatine, IA 52761

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## Permitted Equipment

**Emission Unit(s):** GP1: Gluten Filter No. 9 (EU1255.9)  
Maximum Capacity: 0.86 ton per hour gluten cake output

**Control Equipment:** None

**Emission Point:** EP286.0

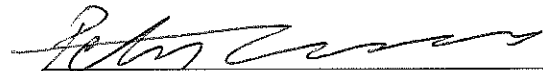
**Equipment Location:** 1600 Oregon Street  
Muscatine, IA 52761

**Plant Number:** 70-01-004

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Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Project No.	Description	Date	Stack Testing
15-A-483	15-362	Permit Unit to limit SO <sub>2</sub> emissions	02/15/16	No



Under the Direction of the Director of  
the Department of Natural Resources

## PERMIT CONDITIONS

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### 1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

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### 2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) "*Maintenance and Repair*".

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### 3. Transferability

As limited by 567 IAC 22.3(3)"P", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment<sup>1</sup> (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

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<sup>1</sup> A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

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### 4. Construction

#### A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

#### 4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:

- (1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
- (2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
- (3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

#### B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:

- (1) Any changes are made to the final plans and specifications submitted for the proposed project; or
- (2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

#### C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:

- (1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
- (2) This current amendment becomes void.

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### 5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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### 6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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## 7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to \$10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

---

## 8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:

- (1) Per 567 IAC 22.3(3)"b":
  - (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
  - (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
- (2) Per 567 IAC 22.3(3)"f", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
  - (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
  - (b) at least seven (7) days before equipment relocation.
- (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324

and include the following information:

- The date of ownership change,
  - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
  - The construction permit number(s) of the equipment changing ownership.
- (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
- the time,
  - the place,
  - the name of the person who will conduct the tests,
  - and other information as required by the Department;

If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:

- (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
- (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
- (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
- (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.

**8. Notification, Reporting, and Recordkeeping (Continued)**

- (5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;
- C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)
- D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9549  
Fax: (515) 725-9501

- E. The owner or operator shall send correspondence concerning stack testing to:

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Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9545  
Fax: (515) 725-9502

- F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	DNR Field Office 6 1023 West Madison Washington, IA 52353 Telephone: (319) 653-2135 Fax: (319) 653-2856
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**9. Appeal Rights**

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

Director Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319
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### 10. Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr <sup>1</sup>	tons/yr <sup>2</sup>	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	NA	NA	NA	NA
PM <sub>10</sub>	NA	NA	NA	NA
PM <sub>2.5</sub>	NA	NA	NA	NA
Opacity	NA	NA	NA	NA
Sulfur Dioxide (SO <sub>2</sub> )	0.067 <sup>3</sup>	NA	500 ppm <sub>v</sub>	RACT, 23.3(3)"e"
Nitrogen Oxides (NO <sub>x</sub> )	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	NA	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

- The emission limit is expressed as the average of three (3) runs.
- The emission limit is a twelve (12) month rolling total.
- The SO<sub>2</sub> limit is established to address the nonattainment designation for a portion of Muscatine County published in the Federal Register (78 FR 47191) on August 5, 2013. The nonattainment designation is for the 1-hour SO<sub>2</sub> primary national ambient air quality standard promulgated by EPA in 2010 (75 FR 35519, June 22, 2010).

### 11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	65.5 Feet
Discharge Style	Horizontal
Stack Opening (inches, diameter)	10.5 inches
Exhaust Temperature (°F)	73 °F
Exhaust Flowrate (scfm)	4170 scfm

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

### 12. Compliance Demonstration(s)

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	Performance Testing	NA
PM – State	No	Performance Testing	NA
PM <sub>10</sub>	No	Performance Testing	NA
PM <sub>2.5</sub>	No	Performance Testing	NA
Opacity	No	Performance Testing	NA
SO <sub>2</sub>	No	Performance Testing	NA
NO <sub>x</sub>	No	Performance Testing	NA
VOC	No	Performance Testing	NA
CO	No	Performance Testing	NA
Pb	No	Performance Testing	NA
HAP	No	Performance Testing	NA

**12. Compliance Demonstration(s) (Continued)**

**If an initial compliance demonstration specified above is testing**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 within one hundred and twenty days (120) days after the issuance date of this permit.

**If subsequent testing is specified above**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner’s authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM <sub>10</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
PM <sub>2.5</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO <sub>2</sub>	1 hour	40 CFR 60, Appendix A, Method 6C
NO <sub>x</sub>	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18, or 40 CFR 63, Appendix A, Method 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

Per 567 IAC 25.1(7)“a”, at the Department’s request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

**13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability**

These emission units are not subject to any New Source Performance Standard or National Emission Standards for Hazardous Air Pollutants (NESHAP) at this time. There are no applicable subparts.

**14. Operating Limits**

Operating limits for this emission unit shall be:

- A. This permit establishes no operating limits for this emissions unit.
- 

**15. Operating Condition Monitoring and Recordkeeping**

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. This permit establishes no monitoring and recordkeeping requirements for this emissions unit.
- 

**16. Continuous Emission Monitoring**

Continuous emission monitoring is not required by this permit at this time.

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**17. Permit History**

Permit No.	Project No.	Description	Date	Stack Testing

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## 18. Description of Terms and Acronyms

*The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.*

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
PM <sub>2.5</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM <sub>10</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm <sub>v</sub>	parts per million by volume
ppm <sub>w</sub>	parts per million by weight
RACT	Reasonably Available Control Technology
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

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**END OF PERMIT**

# Iowa Department of Natural Resources

## Air Quality Construction Permit

### Permit Holder

**Firm:** Grain Processing Corporation

**Contact:**

Mick Durham  
Director of Environmental Services

563.264.4569

1600 Oregon Street  
Muscatine, IA 52761

**Responsible Party:**

Ron Zitzow  
Senior Vice President

1600 Oregon Street  
Muscatine, IA 52761

### Permitted Equipment

**Emission Unit(s):** Dryer House 4, Rotary Dryer #5 (EU1236.0)-Indirect Heated  
Maximum Capacity: 4.25 tons of dried feed per hour  
Dryer House 4, Rotary Dryer #6 (EU1238.0)- Indirect Heated  
Maximum Capacity: 6.65 tons of dried feed per hour  
Dryer House 4, Rotary Dryer #7 (EU1241.0)- Indirect Heated  
Maximum Capacity: 6.65 tons of dried feed per hour

**Control Equipment:** See Condition 11 for Control Equipment List

**Emission Point:** EP 311.0

**Equipment Location:** 1600 Oregon Street  
Muscatine, IA 52761

**Plant Number:** 70-01-004

Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Project No.	Description	Date	Stack Testing
15-A-213	15-087	Merge Stacks EP127, EP137, EP164, Add Scrubber, Add RTO, PM2.5 & SO2 limits	01/26/16	Yes



Under the Direction of the Director of  
the Department of Natural Resources

## PERMIT CONDITIONS

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### 1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

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### 2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) "*Maintenance and Repair*".

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### 3. Transferability

As limited by 567 IAC 22.3(3)<sup>1</sup>, this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment<sup>1</sup> (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

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<sup>1</sup> A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

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### 4. Construction

#### A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

#### 4. Construction (Continued)



In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:

- (1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
- (2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
- (3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

#### B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:

- (1) Any changes are made to the final plans and specifications submitted for the proposed project; or
- (2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

#### C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:

- (1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
- (2) This current amendment becomes void.

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### 5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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### 6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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## 7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to \$10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

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## 8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:

- (1) Per 567 IAC 22.3(3)"b":
  - (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
  - (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
- (2) Per 567 IAC 22.3(3)"f", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
  - (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
  - (b) at least seven (7) days before equipment relocation.
- (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324

and include the following information:

- The date of ownership change,
  - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
  - The construction permit number(s) of the equipment changing ownership.
- (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
- the time,
  - the place,
  - the name of the person who will conduct the tests,
  - and other information as required by the Department;

If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:

- (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
- (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
- (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
- (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.

**8. Notification, Reporting, and Recordkeeping (Continued)**

(5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;

C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)

D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9549  
Fax: (515) 725-9501

E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9545  
Fax: (515) 725-9502

F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	DNR Field Office 6 1023 West Madison Washington, IA 52353 Telephone: (319) 653-2135 Fax: (319) 653-2856
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**9. Appeal Rights**

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

Director Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319
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**10a. Emission Limits**

The following emission limits for EP311.0 shall not be exceeded:

Pollutant	lb/hr <sup>1</sup>	tons/yr <sup>2</sup>	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	5.7 <sup>3</sup>	NA	0.1 gr/dscf <sup>1</sup>	23.4(7)
PM <sub>10</sub>	5.7 <sup>3,4</sup>	NA	NA	NAAQS
PM <sub>2.5</sub>	0.60 <sup>3,5, 10</sup>	NA	NA	NAAQS
Opacity	NA	NA	40% <sup>6,7</sup>	23.3(2)“d”
Sulfur Dioxide (SO <sub>2</sub> )	2.10 <sup>8,9</sup>	NA	90% Control Efficiency or 10 ppm <sub>v,d</sub> <sup>1,10,11</sup>	RACT
Nitrogen Oxides (NO <sub>x</sub> )	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	98% Control Efficiency or 10 ppm <sub>v,d</sub> <sup>1,3, 10,12</sup>	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

1. The emission limit is expressed as the average of three (3) runs.
2. The emission limit is a twelve (12) month rolling total.
3. Limit restricts potential PM, PM<sub>10</sub>, PM<sub>2.5</sub> and VOC emission below PSD significance levels and Project 15-087 is considered a minor modification for the purposes of PSD.
4. The limit for PM<sub>10</sub> emissions is established to correspond to the emission rate used in the dispersion modeling required by the consent decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV016788, Iowa District Court in and for Muscatine County (July 17, 2006)].
5. The limit for PM<sub>2.5</sub> emissions is established to address the “Finding of Substantial Inadequacy of Implementation Plan; Call for Iowa SIP Revision” for PM<sub>2.5</sub> published in the Federal Register (76 FR 9706) on February 22, 2011.
6. The emission limit is a six (6) minute average.
7. An exceedance of the indicator opacity of 10% will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).
8. Limit restricts potential SO<sub>2</sub> emissions below NA-NSR significance level and Project 15-087 is considered a minor modification for the purposes of NA-NSR.
9. The SO<sub>2</sub> limit is established to address the nonattainment designation for a portion of Muscatine County published in the Federal Register (78 FR 47191) on August 5, 2013. The nonattainment designation is for the 1-hour SO<sub>2</sub> primary national ambient air quality standard promulgated by EPA in 2010 (75 FR 35519, June 22, 2010).
10. The limit for PM<sub>2.5</sub>, SO<sub>2</sub> and VOC emissions as required by the consent order, judgment, and decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV020979, Iowa District Court for Muscatine County (March 27, 2014)].
11. Limit requires 90 percent control efficiency across Spray Chamber Scrubber (CE1236-2) or SO<sub>2</sub> concentration of 10 ppm<sub>v,d</sub> from the outlet of EP311.0. Compliance with limit shall be demonstrated by measuring the SO<sub>2</sub> concentration of the inlet and outlet of Spray Chamber Scrubber (CE1236-2) to determine control efficiency of the scrubber or measuring the outlet SO<sub>2</sub> concentration from EP311.0.
12. Limit requires 98 percent control efficiency across Regenerative Thermal Oxidizer (CE1236-3) or VOC concentration of 10 ppm<sub>v,d</sub> from the outlet of EP311.0. Compliance with limit shall be demonstrated by measuring the inlet and outlet VOC concentration of Regenerative Thermal Oxidizer (CE1236-3) to determine control efficiency of Regenerative Thermal Oxidizer (CE1236-3) or measuring the outlet VOC concentration from EP311.0.

**10b. Other Emission Limits**

The following emission limits for DH4 Feed Dryer #5 (EU1236.0) shall not be exceeded:

Pollutant	lb/hr <sup>1</sup>	tons/yr <sup>2</sup>	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – State	1.41 <sup>3</sup>	NA	NA	31.20(1) <sup>b</sup> d <sup>b</sup> , LAER
PM <sub>10</sub>	NA	NA	NA	NA
PM <sub>2.5</sub>	NA	NA	NA	NA
Opacity	NA	NA	NA	NA

1. The emission limit is expressed as the average of three (3) runs.
2. The emission limit is a twelve (12) month rolling total.
3. Limit established when the Muscatine Area was designated non-attainment for TSP (PM). Any relaxation in the Lowest Achievable Emission Rates (LAER) after the Muscatine Area is redesignated attainment for TSP (PM) is subject to review under the PSD regulations in effect at the time the relaxation occurs.

The following emission limits for DH4 Feed Dryer #6 (EU1238.0) shall not be exceeded:

Pollutant	lb/hr <sup>1</sup>	tons/yr <sup>2</sup>	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – State	NA	NA	0.1 gr/scf <sup>3</sup>	31.20(1) <sup>b</sup> d <sup>b</sup> , LAER
PM <sub>10</sub>	NA	NA	NA	NA
PM <sub>2.5</sub>	NA	NA	NA	NA
Opacity	NA	NA	NA	NA

1. The emission limit is expressed as the average of three (3) runs.
2. The emission limit is a twelve (12) month rolling total.
3. Limit established when the Muscatine Area was designated non-attainment for TSP (PM). Any relaxation in the Lowest Achievable Emission Rates (LAER) after the Muscatine Area is redesignated attainment for TSP (PM) is subject to review under the PSD regulations in effect at the time the relaxation occurs.

The following emission limits for DH4 Feed Dryer #7 (EU1241.0) shall not be exceeded:

Pollutant	lb/hr <sup>1</sup>	tons/yr <sup>2</sup>	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – State	1.60 <sup>3</sup>	NA	NA	NA
PM <sub>10</sub>	NA	NA	NA	NA
PM <sub>2.5</sub>	NA	NA	NA	NA
Opacity	NA	NA	NA	NA

1. The emission limit is expressed as the average of three (3) runs.
2. The emission limit is a twelve (12) month rolling total.
3. Limit restricts potential PM emissions below the PSD significance level and maintains Projects 90-082 as minor for the purposes of PSD.

**11. Emission Point Characteristics**

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	110 Feet
Discharge Style	Vertical Unobstructed Discharge
Stack Opening (inches, diameter)	64 inches Diameter
Exhaust Temperature (°F)	187 °F
Exhaust Flowrate (scfm)	35,600 scfm

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

The following emission unit and control equipment are vented directly or indirectly through this emission point:

Emission Unit Description	Control Equipment		
DH4 Rotary Dryer #5 (EU1236.0)	Expansion Chamber (CE1236-1)	Spray Chamber Scrubber (CE1236-2)	Regenerative Thermal Oxidizer (CE1236-3), Maximum Heat Input: 12.0 MMBtu/hr with Low NOx Burners
DH4 Rotary Dryer #6 (EU1238.0)	Expansion Chamber (CE1238-1)		
DH4 Rotary Dryer #7 (EU1241.0)	Expansion Chamber (CE1241-1)		

**12. Compliance Demonstration(s)**

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	Performance Testing	NA
PM – State	Yes	Performance Testing	Once Every 3 Calendar Years <sup>1</sup>
PM <sub>10</sub>	Yes <sup>2</sup>	Performance Testing	Once Every 3 Calendar Years <sup>1,2</sup>
PM <sub>2.5</sub>	Yes <sup>3</sup>	Performance Testing	Once Every 3 Calendar Years <sup>1,3</sup>
Opacity	Yes	Performance Testing	Once Every 3 Calendar Years <sup>1</sup>
SO <sub>2</sub>	Yes	Performance Testing	Once Every 3 Calendar Years <sup>1</sup>
NO <sub>x</sub>	No	Performance Testing	NA
VOC	Yes	Performance Testing	Once Every 3 Calendar Years <sup>1</sup>
CO	No	Performance Testing	NA
Pb	No	Performance Testing	NA
HAP	No	Performance Testing	NA

- 1 Performance testing for PM, PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, VOC and visible observation shall be conducted once every 3 calendar years. After the completion of three consecutive performance tests that demonstrate compliance with PM, PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, VOC emission limits as specified in condition 10, the owner or operator may request to modify the performance testing frequency for PM, PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, VOC and visible observation.
- 2 Performance testing may be conducted for total particulate matter to demonstrate compliance with PM<sub>10</sub> limit as specified in permit condition 10.
- 3 If performance testing using methods specified in 40 CFR 51, Appendix M, 201A with 202 are not performed due high moisture content (stack saturation) then the owner or operator shall demonstrate compliance with PM<sub>2.5</sub> limit as specified in permit condition 10 by conducting methods specified in 40 CFR 60, Appendix A, Method 5 and 40 CFR 51 Appendix M Method 202. Utilizing Method 5, the filterable PM<sub>2.5</sub> fraction shall be determined by conducting internal particle sizing of the dried feed product (immediately following the feed dryers) to determine the PM<sub>2.5</sub> fraction of the measured total filterable particulate. Utilizing Method 202, the measured condensable fraction shall be considered all PM<sub>2.5</sub>.

**12. Compliance Demonstration(s)** (continued)

**If an initial compliance demonstration specified above is testing**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 within sixty (60) days after achieving maximum production rate and no later than one hundred eighty (180) days after the initial startup date of the proposed equipment.

**If subsequent testing is specified above**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner’s authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM <sub>10</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
PM <sub>2.5</sub>	2 hours	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO <sub>2</sub>	1 hour	40 CFR 60, Appendix A, Method 6C
NO <sub>x</sub>	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18 or 40 CFR 63, Appendix A, Method 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

Per 567 IAC 25.1(7)“a”, at the Department’s request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner’s intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

**13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability**

This emission unit is not subject to any New Source Performance Standard or National Emission Standards for Hazardous Air Pollutants (NESHAP) at this time. There are no applicable subparts at this time.

## **14. Operating Limits**

Operating limits shall be:

### **DH4, Rotary Dryer #5 (EU 1236.0)**

- A. The capacity of the DH4, Rotary Dryer #5 (EU 1236.0) is limited to 4.25 tons per hour of dry product.
- B. The #5 Rotary Dryer Stub Feeder Conveyor speed shall not exceed 28.9 revolutions per minute (rpm) on a one (1) hour average which is 85% of the maximum conveyor speed of 34 rpm.

### **Control Equipment**

- C. The Spray Chamber Scrubber (CE1236-2) total liquor flowrate shall be maintained at or above 55 gallons per minute.
- D. The pressure drop across Spray Chamber Scrubber (CE1236-2) shall be maintained between 1 to 6 inches of water column.
- E. The pH range of the scrubbing liquor in Spray Chamber Scrubber (CE1236-2) shall be maintained between 5 and 8.
- F. The owner or operator shall properly operate and maintain equipment to monitor the total liquor flow rate, pH, and differential pressure drop across the Spray Chamber Scrubber (CE1236-2). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
- G. The owner or operator shall develop an operating and maintenance plan for Spray Chamber Scrubber (CE1236-2) including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
- H. The owner or operator shall maintain a Regenerative Thermal Oxidizer (CE1236-3) combustion chamber temperature to no less than 1600 degrees Fahrenheit based on a 3-hour block average.
- I. The owner or operator shall combust only natural gas or process off-gasses in Regenerative Thermal Oxidizer (CE1236-3).
- J. The owner or operator shall only bypass Regenerative Thermal Oxidizer (CE1236-3) for purposes of malfunction and/or maintenance for a maximum of 200 hours per twelve month rolling period.
- K. The owner or operator shall properly operate and maintain equipment to monitor the chamber temperature of Regenerative Thermal Oxidizer (CE1236-3). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
- L. The owner or operator shall develop an operating and maintenance plan for Regenerative Thermal Oxidizer (CE1236-3) including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.

### **DH4, Process Building**

- M. The owner or operator shall conduct visible emissions observation on Dryer House 4 (DH4) Process Building once per calendar week.

### **Project Completion**

- N. The owner or operator shall install and commence operation of Spray Chamber Scrubber (CE1236-2) by November 1, 2016.
- O. The owner or operator shall install and commence operation of Regenerative Thermal Oxidizer (CE1236-3) by November 1, 2016.



**14. Operating Limits (continued)**

- P. The owner or operator construct stack EP311.0 to conform to the parameters as specified in condition 11 by November 1, 2016.

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**15. Operating Condition Monitoring and Recordkeeping**

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. These records shall show the following:

**DH4, Rotary Dryer #5 (EU 1236.0)**

- A. The owner or operator shall properly operate and maintain equipment to continuously monitor the #5 Rotary Dryer Stub Feeder Conveyor motor speed. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
- B. The owner or operator shall collect and calculate the #5 Rotary Dryer Stub Feeder Conveyor speed, in revolutions per minute, continuously. This requirement shall not apply on the days that DH4, Rotary Dryer #5 is not in operation.
- C. The owner or operator shall determine and track the hourly average #5 Rotary Dryer Stub Feeder Conveyor speed in revolutions per minute.

**Control Equipment**

- D. The owner or operator shall collect and record the total liquor flow rate to Spray Chamber Scrubber (CE1236-2), in gallons per minute on a continuous basis. If the total liquor flow rate to Spray Chamber Scrubber (CE1236-2) falls below the value specified in Condition 14D, the owner or operator shall investigate Spray Chamber Scrubber (CE1236-2) and make corrections to Spray Chamber Scrubber (CE1236-2). The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that Spray Chamber Scrubber (CE1236-2) is not in operation.
- E. The owner or operator shall collect and record the pressure drop across the Spray Chamber Scrubber (CE1236-2), in inches of water, on a continuous basis. If the pressure drop across Spray Chamber Scrubber (CE1236-2) falls outside the range specified in Condition 14E, the owner or operator shall investigate Spray Chamber Scrubber (CE1236-2) and make corrections to Spray Chamber Scrubber (CE1236-2). The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that Spray Chamber Scrubber (CE1236-2) is not in operation.
- F. The owner or operator shall collect and record the scrubbing liquor pH in Spray Chamber Scrubber (CE1236-2), on a continuous basis. If the pH of the scrubbing liquor in Spray Chamber Scrubber (CE1236-2) falls outside the range specified in Condition 14F, the owner or operator shall investigate Spray Chamber Scrubber (CE1236-2) and make corrections to Spray Chamber Scrubber (CE1236-2). The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that Spray Chamber Scrubber (CE1236-2) is not in operation.
- G. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Spray Chamber Scrubber (CE1236-2).

**15. Operating Condition Monitoring and Recordkeeping (continued)**

- H. The owner or operator shall collect and record the combustion chamber temperature of Regenerative Thermal Oxidizer (CE1236-3), in °F on a continuous basis. The owner or operator shall calculate and record the 3-hour block average of the combustion chamber temperature in °F. If the 3-hour block average combustion chamber temperature of Regenerative Thermal Oxidizer (CE1236-3) falls below the value specified in Condition 14I, the owner or operator shall investigate Regenerative Thermal Oxidizer (CE1236-3) and make corrections Regenerative Thermal Oxidizer (CE1236-3). The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that Regenerative Thermal Oxidizer (CE1236-3) is not in operation.
- I. The owner or operator shall record the total hours and the cause of Regenerative Thermal Oxidizer (CE1236-3) bypass on a monthly basis. The owner or operator shall calculate and record the rolling 12-month totals.
- J. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Regenerative Thermal Oxidizer (CE1236-3).

**DH4, Process Building**

- K. If the owner or operator observes visible emissions from Dryer House 4 (DH4) Process Building, the owner or operator shall investigate the emission units, control equipment or operations associated with DH4 Building and make corrections to the associated operations or equipment. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that emission units, control equipment or operations associated with DH4 Building are not in operation.

**Project Completion**

- L. The owner or operator shall maintain a record of installation date and operation commencement date of Spray Chamber Scrubber (CE1236-2).
- M. The owner or operator shall maintain a record of installation date and operation commencement date of Regenerative Thermal Oxidizer (CE1236-3).
- N. The owner or operator shall maintain a record of the completion date that EP311.0 is constructed as specified in condition 11.

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**16. Continuous Emission Monitoring**

Continuous emission monitoring is not required by this permit at this time.

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**17. Permit History**

Dryer House 4 Rotary Dryer #5 (EP127.0)

Permit No.	Project No.	Description	Date	Stack Testing
09-A-707	09-317	Replace Rotary Dryer #5, previously permitted under 80-A-112	12/23/09	No
09-A-707-S1	10-501	Amended recordkeeping.	03/09/11	No

Dryer House 4 Rotary Dryer #6 (EP137.0)

Permit No.	Project No.	Description	Date	Stack Testing
85-A-033	85-032	Original Permit	03/26/85	Yes

Dryer House 4 Rotary Dryer #7 (EP164.0)

Permit No.	Project No.	Description	Date	Stack Testing
90-A-264	90-082	Original Permit	08/30/90	Yes

## 18. Description of Terms and Acronyms

*The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.*

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
Department	Iowa Department of Natural Resources
°F	Degrees Fahrenheit
ft	Foot
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
LAER	Lowest Achievable Emission Rate
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
PM <sub>2.5</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM <sub>10</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm <sub>v</sub>	parts per million by volume
ppm <sub>w</sub>	parts per million by weight
RACT	Reasonable Available Control Technology
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

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**END OF PERMIT**

# Iowa Department of Natural Resources Air Quality Construction Permit

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## Permit Holder

**Firm:** Grain Processing Corporation

**Contact:**

Mick Durham  
Director of Environmental Services

(563) 264-4569

1600 Oregon Street  
Muscatine, IA 52761

**Responsible Party:**

Ron Zitzow  
Senior Vice President

1600 Oregon Street  
Muscatine, IA 52761

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## Permitted Equipment

**Emission Unit(s):** GP2: Gluten Filter No. 1 (EU1281.1), 0.86 ton per hour gluten cake output,  
Gluten Filter No. 4 (EU1281.4), 0.86 ton per hour gluten cake output

**Control Equipment:** None

**Emission Point:** EP312.0

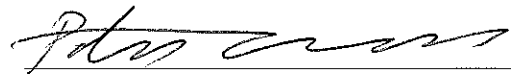
**Equipment Location:** 1600 Oregon Street  
Muscatine, IA 52761

**Plant Number:** 70-01-004

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Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Project No.	Description	Date	Stack Testing
15-A-484	15-362	Permit Units to limit SO <sub>2</sub> emissions	02/15/16	No



Under the Direction of the Director of  
the Department of Natural Resources

## PERMIT CONDITIONS

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### 1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

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### 2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) "*Maintenance and Repair*".

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### 3. Transferability

As limited by 567 IAC 22.3(3)"f", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment<sup>1</sup> (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

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<sup>1</sup> A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

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### 4. Construction

#### A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

#### 4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:

- (1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
- (2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
- (3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

#### B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:

- (1) Any changes are made to the final plans and specifications submitted for the proposed project; or
- (2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

#### C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:

- (1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
- (2) This current amendment becomes void.

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### 5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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### 6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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## 7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to \$10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

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## 8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:

- (1) Per 567 IAC 22.3(3)"b":
  - (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
  - (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
- (2) Per 567 IAC 22.3(3)"f", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
  - (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
  - (b) at least seven (7) days before equipment relocation.
- (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324

and include the following information:

- The date of ownership change,
  - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
  - The construction permit number(s) of the equipment changing ownership.
- (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
    - the time,
    - the place,
    - the name of the person who will conduct the tests,
    - and other information as required by the Department;

If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:

- (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
- (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
- (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
- (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.



**8. Notification, Reporting, and Recordkeeping (Continued)**

- (5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;
- C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)
- D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9549  
Fax: (515) 725-9501

- E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9545  
Fax: (515) 725-9502

- F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	DNR Field Office 6 1023 West Madison Washington, IA 52353 Telephone: (319) 653-2135 Fax: (319) 653-2856
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**9. Appeal Rights**

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

Director Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319
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### 10. Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr <sup>1</sup>	tons/yr <sup>2</sup>	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	NA	NA	NA	NA
PM <sub>10</sub>	NA	NA	NA	NA
PM <sub>2.5</sub>	NA	NA	NA	NA
Opacity	NA	NA	NA	NA
Sulfur Dioxide (SO <sub>2</sub> )	0.134 <sup>3</sup>	NA	500 ppm <sub>v</sub>	RACT, 23.3(3)"e"
Nitrogen Oxides (NO <sub>x</sub> )	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	NA	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

1. The emission limit is expressed as the average of three (3) runs.
2. The emission limit is a twelve (12) month rolling total.
3. The SO<sub>2</sub> limit is established to address the nonattainment designation for a portion of Muscatine County published in the Federal Register (78 FR 47191) on August 5, 2013. The nonattainment designation is for the 1-hour SO<sub>2</sub> primary national ambient air quality standard promulgated by EPA in 2010 (75 FR 35519, June 22, 2010).

### 11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	39 Feet
Discharge Style	Horizontal
Stack Opening (inches, diameter)	24 inches
Exhaust Temperature (°F)	81 °F
Exhaust Flowrate (scfm)	5430 scfm

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

### 12. Compliance Demonstration(s)

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	Performance Testing	NA
PM – State	No	Performance Testing	NA
PM <sub>10</sub>	No	Performance Testing	NA
PM <sub>2.5</sub>	No	Performance Testing	NA
Opacity	No	Performance Testing	NA
SO <sub>2</sub>	No	Performance Testing	NA
NO <sub>x</sub>	No	Performance Testing	NA
VOC	No	Performance Testing	NA
CO	No	Performance Testing	NA
Pb	No	Performance Testing	NA
HAP	No	Performance Testing	NA

**12. Compliance Demonstration(s) (Continued)**

**If an initial compliance demonstration specified above is testing**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 within one hundred and twenty days (120) days after the issuance date of this permit.

**If subsequent testing is specified above**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner’s authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

<b>Pollutant</b>	<b>Test Run Time</b>	<b>Test Method</b>
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM <sub>10</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
PM <sub>2.5</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO <sub>2</sub>	1 hour	40 CFR 60, Appendix A, Method 6C
NO <sub>x</sub>	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18, or 40 CFR 63, Appendix A, Method 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

Per 567 IAC 25.1(7)“a”, at the Department’s request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

**13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability**

These emission units are not subject to any New Source Performance Standard or National Emission Standards for Hazardous Air Pollutants (NESHAP) at this time. There are no applicable subparts.

**14. Operating Limits**

Operating limits for this emission unit shall be:

- A. This permit establishes no operating limits for this emissions unit.
- 

**15. Operating Condition Monitoring and Recordkeeping**

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. This permit establishes no monitoring and recordkeeping requirements for this emissions unit.
- 

**16. Continuous Emission Monitoring**

Continuous emission monitoring is not required by this permit at this time.

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**17. Permit History**

Permit No.	Project No.	Description	Date	Stack Testing

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## 18. Description of Terms and Acronyms

*The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.*

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
PM <sub>2.5</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM <sub>10</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm <sub>v</sub>	parts per million by volume
ppm <sub>w</sub>	parts per million by weight
RACT	Reasonably Available Control Technology
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

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**END OF PERMIT**

# Iowa Department of Natural Resources

## Air Quality Construction Permit

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### Permit Holder

**Firm:** Grain Processing Corporation

**Contact:**

Mick Durham  
Director of Environmental Services

(563) 264-4569

1600 Oregon Street  
Muscatine, IA 52761

**Responsible Party:**

Ron Zitzow  
Senior Vice President

1600 Oregon Street  
Muscatine, IA 52761

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### Permitted Equipment

**Emission Unit(s):** GP2: Gluten Filter No. 2 (EU1281.2), Maximum Capacity: 0.86 ton per hour gluten cake output  
Gluten Filter No. 3 (EU1281.3), Maximum Capacity: 0.86 ton per hour gluten cake output

**Control Equipment:** None

**Emission Point:** EP313.0

**Equipment Location:** 1600 Oregon Street  
Muscatine, IA 52761

**Plant Number:** 70-01-004

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Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Project No.	Description	Date	Stack Testing
15-A-485	15-362	Permit Units to limit SO <sub>2</sub> emissions	02/15/16	No



Under the Direction of the Director of  
the Department of Natural Resources

## PERMIT CONDITIONS

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### 1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

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### 2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) "*Maintenance and Repair*".

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### 3. Transferability

As limited by 567 IAC 22.3(3)"F", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment<sup>1</sup> (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

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<sup>1</sup> A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

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### 4. Construction

#### A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

#### 4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:

- (1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
- (2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
- (3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

#### B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:

- (1) Any changes are made to the final plans and specifications submitted for the proposed project; or
- (2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

#### C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:

- (1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
- (2) This current amendment becomes void.

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### 5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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### 6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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## 7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to \$10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

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## 8. Notification, Reporting, and Recordkeeping

- A. The owner or operator shall furnish the Department the following written notifications:
- (1) Per 567 IAC 22.3(3)"b":
    - (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
    - (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
  - (2) Per 567 IAC 22.3(3)"P", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
    - (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
    - (b) at least seven (7) days before equipment relocation.
  - (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324

and include the following information:

- The date of ownership change,
  - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
  - The construction permit number(s) of the equipment changing ownership.
- (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
- the time,
  - the place,
  - the name of the person who will conduct the tests,
  - and other information as required by the Department;

If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

- B. The owner or operator shall furnish the Department with the following reports:
- (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
  - (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
  - (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
  - (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.

**8. Notification, Reporting, and Recordkeeping (Continued)**

- (5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;
- C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)
- D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9549  
Fax: (515) 725-9501

- E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9545  
Fax: (515) 725-9502

- F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	DNR Field Office 6 1023 West Madison Washington, IA 52353 Telephone: (319) 653-2135 Fax: (319) 653-2856
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**9. Appeal Rights**

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

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Director Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319
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### 10. Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr <sup>1</sup>	tons/yr <sup>2</sup>	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	NA	NA	NA	NA
PM <sub>10</sub>	NA	NA	NA	NA
PM <sub>2.5</sub>	NA	NA	NA	NA
Opacity	NA	NA	NA	NA
Sulfur Dioxide (SO <sub>2</sub> )	0.134 <sup>3</sup>	NA	500 ppm <sub>v</sub>	RACT, 23.3(3)"e"
Nitrogen Oxides (NO <sub>x</sub> )	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	NA	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

- The emission limit is expressed as the average of three (3) runs.
- The emission limit is a twelve (12) month rolling total.
- The SO<sub>2</sub> limit is established to address the nonattainment designation for a portion of Muscatine County published in the Federal Register (78 FR 47191) on August 5, 2013. The nonattainment designation is for the 1-hour SO<sub>2</sub> primary national ambient air quality standard promulgated by EPA in 2010 (75 FR 35519, June 22, 2010).

### 11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	39 Feet
Discharge Style	Horizontal
Stack Opening (inches, diameter)	24 inches
Exhaust Temperature (°F)	81°F
Exhaust Flowrate (scfm)	5430 scfm

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

### 12. Compliance Demonstration(s)

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	Performance Testing	NA
PM – State	No	Performance Testing	NA
PM <sub>10</sub>	No	Performance Testing	NA
PM <sub>2.5</sub>	No	Performance Testing	NA
Opacity	No	Performance Testing	NA
SO <sub>2</sub>	No	Performance Testing	NA
NO <sub>x</sub>	No	Performance Testing	NA
VOC	No	Performance Testing	NA
CO	No	Performance Testing	NA
Pb	No	Performance Testing	NA
HAP	No	Performance Testing	NA

**12. Compliance Demonstration(s) (Continued)**

**If an initial compliance demonstration specified above is testing**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 within one hundred and twenty days (120) days after the issuance date of this permit.

**If subsequent testing is specified above**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner’s authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

<b>Pollutant</b>	<b>Test Run Time</b>	<b>Test Method</b>
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM <sub>10</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
PM <sub>2.5</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO <sub>2</sub>	1 hour	40 CFR 60, Appendix A, Method 6C
NO <sub>x</sub>	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18, or 40 CFR 63, Appendix A, Method 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

Per 567 IAC 25.1(7)"a", at the Department’s request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

**13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability**

These emission units are not subject to any New Source Performance Standard or National Emission Standards for Hazardous Air Pollutants (NESHAP) at this time. There are no applicable subparts.

**14. Operating Limits**

Operating limits for this emission unit shall be:

- A. This permit establishes no operating limits for this emissions unit.
- 

**15. Operating Condition Monitoring and Recordkeeping**

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. This permit establishes no monitoring and recordkeeping requirements for this emissions unit.
- 

**16. Continuous Emission Monitoring**

Continuous emission monitoring is not required by this permit at this time.

---

**17. Permit History**

Permit No.	Project No.	Description	Date	Stack Testing

---

## 18. Description of Terms and Acronyms

*The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.*

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
PM <sub>2.5</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM <sub>10</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm <sub>v</sub>	parts per million by volume
ppm <sub>w</sub>	parts per million by weight
RACT	Reasonably Available Control Technology
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

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**END OF PERMIT**

# Iowa Department of Natural Resources

## Air Quality Construction Permit

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### Permit Holder

**Firm:** Grain Processing Corporation

**Contact:**

Mick Durham  
Director of Environmental Services

(563) 264-4569

1600 Oregon Street  
Muscatine, IA 52761

**Responsible Party:**

Ron Zitzow  
Senior Vice President

1600 Oregon Street  
Muscatine, IA 52761

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### Permitted Equipment

**Emission Unit(s):** GP2: Gluten Filter No. 5 (EU1281.5), Maximum Capacity: 0.86 ton per hour gluten cake output  
Gluten Filter No. 6 (EU1281.6), Maximum Capacity: 0.86 ton per hour gluten cake output  
Gluten Filter No. 7 (EU1281.7), Maximum Capacity: 0.86 ton per hour gluten cake output

**Control Equipment:** None

**Emission Point:** EP314.0

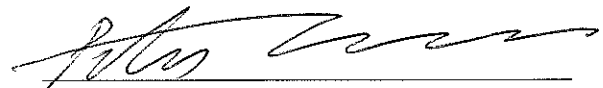
**Equipment Location:** 1600 Oregon Street  
Muscatine, IA 52761

**Plant Number:** 70-01-004

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Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Project No.	Description	Date	Stack Testing
15-A-486	15-362	Permit Units to limit SO <sub>2</sub> emissions	02/15/16	No



Under the Direction of the Director of  
the Department of Natural Resources

## PERMIT CONDITIONS

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### 1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

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### 2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) "*Maintenance and Repair*".

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### 3. Transferability

As limited by 567 IAC 22.3(3)"P", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment<sup>1</sup> (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

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<sup>1</sup> A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

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### 4. Construction

#### A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.



#### 4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:

- (1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
- (2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
- (3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

#### B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:

- (1) Any changes are made to the final plans and specifications submitted for the proposed project; or
- (2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

#### C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:

- (1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
- (2) This current amendment becomes void.

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### 5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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### 6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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## 7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to \$10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

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## 8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:

- (1) Per 567 IAC 22.3(3)"b":
  - (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
  - (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
- (2) Per 567 IAC 22.3(3)"f", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
  - (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
  - (b) at least seven (7) days before equipment relocation.
- (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324

and include the following information:

- The date of ownership change,
  - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
  - The construction permit number(s) of the equipment changing ownership.
- (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
    - the time,
    - the place,
    - the name of the person who will conduct the tests,
    - and other information as required by the Department;

If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:

- (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
- (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
- (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
- (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.

**8. Notification, Reporting, and Recordkeeping (Continued)**

- (5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;
- C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)
- D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9549  
Fax: (515) 725-9501

- E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9545  
Fax: (515) 725-9502

- F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	DNR Field Office 6 1023 West Madison Washington, IA 52353 Telephone: (319) 653-2135 Fax: (319) 653-2856
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**9. Appeal Rights**

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

Director Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319
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### 10. Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr <sup>1</sup>	tons/yr <sup>2</sup>	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	NA	NA	NA	NA
PM <sub>10</sub>	NA	NA	NA	NA
PM <sub>2.5</sub>	NA	NA	NA	NA
Opacity	NA	NA	NA	NA
Sulfur Dioxide (SO <sub>2</sub> )	0.201 <sup>3</sup>	NA	500 ppm <sub>v</sub>	RACT, 23.3(3)"e"
Nitrogen Oxides (NO <sub>x</sub> )	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	NA	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

- The emission limit is expressed as the average of three (3) runs.
- The emission limit is a twelve (12) month rolling total.
- The SO<sub>2</sub> limit is established to address the nonattainment designation for a portion of Muscatine County published in the Federal Register (78 FR 47191) on August 5, 2013. The nonattainment designation is for the 1-hour SO<sub>2</sub> primary national ambient air quality standard promulgated by EPA in 2010 (75 FR 35519, June 22, 2010).

### 11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	65 Feet
Discharge Style	Horizontal
Stack Opening (inches, diameter)	24 inches
Exhaust Temperature (°F)	81°F
Exhaust Flowrate (scfm)	5430 scfm

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

### 12. Compliance Demonstration(s)

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	Performance Testing	NA
PM – State	No	Performance Testing	NA
PM <sub>10</sub>	No	Performance Testing	NA
PM <sub>2.5</sub>	No	Performance Testing	NA
Opacity	No	Performance Testing	NA
SO <sub>2</sub>	No	Performance Testing	NA
NO <sub>x</sub>	No	Performance Testing	NA
VOC	No	Performance Testing	NA
CO	No	Performance Testing	NA
Pb	No	Performance Testing	NA
HAP	No	Performance Testing	NA

**12. Compliance Demonstration(s) (Continued)**

**If an initial compliance demonstration specified above is testing**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 within one hundred and twenty days (120) days after the issuance date of this permit.

**If subsequent testing is specified above**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner’s authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM <sub>10</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
PM <sub>2.5</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO <sub>2</sub>	1 hour	40 CFR 60, Appendix A, Method 6C
NO <sub>x</sub>	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18, or 40 CFR 63, Appendix A, Method 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

Per 567 IAC 25.1(7)"a", at the Department’s request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

**13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability**

These emission units are not subject to any New Source Performance Standard or National Emission Standards for Hazardous Air Pollutants (NESHAP) at this time. There are no applicable subparts.

**14. Operating Limits**

Operating limits for this emission unit shall be:

- A. This permit establishes no operating limits for this emissions unit.
- 

**15. Operating Condition Monitoring and Recordkeeping**

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. This permit establishes no monitoring and recordkeeping requirements for this emissions unit.
- 

**16. Continuous Emission Monitoring**

Continuous emission monitoring is not required by this permit at this time.

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**17. Permit History**

<b>Permit No.</b>	<b>Project No.</b>	<b>Description</b>	<b>Date</b>	<b>Stack Testing</b>

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## 18. Description of Terms and Acronyms

*The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.*

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
PM <sub>2.5</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM <sub>10</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm <sub>v</sub>	parts per million by volume
ppm <sub>w</sub>	parts per million by weight
RACT	Reasonably Available Control Technology
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

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**END OF PERMIT**

# Iowa Department of Natural Resources

## Air Quality Construction Permit

### Permit Holder

**Firm:** Grain Processing Corporation

**Contact:**

Mick Durham  
Director of Environmental Services

(563) 264-4569

1600 Oregon Street  
Muscatine, IA 52761

**Responsible Party:**

Ron Zitzow  
Senior Vice President

### Permitted Equipment

**Emission Unit(s):** #5 Wet Mill Germ Dryer (EU2874.0), maximum capacity of 10.0 tons per hour of dried germ  
#3 Germ Transfer and Receiver (EU2894.0), maximum capacity of 28.0 tons per hour of wet germ

**Control Equipment:** (See Condition 11 for control equipment list)

**Emission Point:** EP315.0

**Equipment Location:** 1600 Oregon Street  
Muscatine, IA 52761

**Plant Number:** 70-01-004

Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Project No.	Description	Date	Stack Testing
15-A-326	15-050	Add PM <sub>10</sub> , PM <sub>2.5</sub> , and SO <sub>2</sub> & VOC Emission Limits; Install Scrubber & EP178.0 and EP194.0 into common stack	12/10/15	Yes



Under the Direction of the Director of  
the Department of Natural Resources



## PERMIT CONDITIONS

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### 1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

---

### 2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) "*Maintenance and Repair*".

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### 3. Transferability

As limited by 567 IAC 22.3(3)"f", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment<sup>1</sup> (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

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<sup>1</sup> A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

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### 4. Construction

#### A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

#### 4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:

- (1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
- (2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
- (3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

##### B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:

- (1) Any changes are made to the final plans and specifications submitted for the proposed project; or
- (2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

##### C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:

- (1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
- (2) This current amendment becomes void.

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#### 5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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#### 6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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## 7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to \$10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

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## 8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:

- (1) Per 567 IAC 22.3(3)"b":
  - (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
  - (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
- (2) Per 567 IAC 22.3(3)"P", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
  - (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
  - (b) at least seven (7) days before equipment relocation.
- (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324

and include the following information:

- The date of ownership change,
  - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
  - The construction permit number(s) of the equipment changing ownership.
- (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
    - the time,
    - the place,
    - the name of the person who will conduct the tests,
    - and other information as required by the Department;

If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:

- (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
- (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
- (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
- (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.
- (5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met.

**8. Notification, Reporting, and Recordkeeping (Continued)**

C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)

D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9549  
Fax: (515) 725-9501

E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9545  
Fax: (515) 725-9502

F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	DNR Field Office 6 1023 West Madison Washington, IA 52353 Telephone: (319) 653-2135 Fax: (319) 653-2856
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**9. Appeal Rights**

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

Director Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319
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## 10. Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr <sup>1</sup>	tons/yr <sup>2</sup>	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	1.40 <sup>3</sup>	NA	0.1 gr/dscf	23.4(7)
PM <sub>10</sub>	1.40 <sup>4</sup>	NA	NA	NAAQS
PM <sub>2.5</sub>	0.40 <sup>5</sup>	NA	NA	NAAQS
Opacity	NA	NA	40% <sup>6,7</sup>	23.3(2)"d"
Sulfur Dioxide (SO <sub>2</sub> )	0.70 <sup>8</sup>	NA	90% Control Efficiency or 10 ppm <sub>v,d</sub> <sup>1,9,10</sup>	RACT
Nitrogen Oxides (NO <sub>x</sub> )	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	80% Control Efficiency or 7.5 ppm <sub>v,d</sub> <sup>1,9,11</sup>	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

1. The emission limit is expressed as the average of three (3) runs.
2. The emission limit is a twelve (12) month rolling total.
3. Requested limit maintains project 91-097 as minor project for PSD purposes.
4. The limit for PM<sub>10</sub> emissions is established to correspond to the emission rate used in the dispersion modeling required by the consent decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV016788, Iowa District Court in and for Muscatine County (July 17, 2006)].
5. The limit for PM<sub>2.5</sub> emissions is established to address the "Finding of Substantial Inadequacy of Implementation Plan; Call for Iowa SIP Revision" for PM<sub>2.5</sub> published in the Federal Register (76 FR 9706) on February 22, 2011.
6. The emission limit is a six (6) minute average.
7. An exceedance of the indicator opacity of 10% will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).
8. The SO<sub>2</sub> limit is established to address the nonattainment designation for a portion of Muscatine County published in the Federal Register (78 FR 47191) on August 5, 2013. The nonattainment designation is for the 1-hour SO<sub>2</sub> primary national ambient air quality standard promulgated by EPA in 2010 (75 FR 35519, June 22, 2010).
9. The limit for SO<sub>2</sub> and VOC emissions as required by the consent order, judgment, and decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV020979, Iowa District Court for Muscatine County (March 27, 2014)].
10. Limit requires 90 percent control efficiency across Packed Bed Scrubber (CE2874-2) or SO<sub>2</sub> concentration of 10 ppm<sub>v,d</sub> from the outlet of EP178.0/194.0. Compliance with limit shall be demonstrated by measuring the SO<sub>2</sub> concentration of the inlet and outlet of Packed Bed Scrubber (CE2874-2) to determine control efficiency of the scrubber or measuring the outlet SO<sub>2</sub> concentration from EP178.0/194.0.
11. Limit requires 80 percent control efficiency across Packed Bed Scrubber (CE2874-2) or VOC concentration of 7.5 ppm<sub>v,d</sub> from the outlet of EP178.0/194.0. Compliance with limit shall be demonstrated by measuring the VOC concentration of the inlet and outlet of Packed Bed Scrubber (CE2874-2) to determine control efficiency of the scrubber or measuring the outlet VOC concentration from EP178.0/194.0.

### 11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	80 Feet
Discharge Style	Vertical Unobstructed
Stack Opening (inches, diameter)	36.0 inches
Exhaust Temperature (°F)	200 °F
Exhaust Flowrate (scfm)	11,336 scfm

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

The following emission units and control equipment are vented directly or indirectly through this emission point:

Emission Unit Description	Control Equipment	
#5 Wet Mill Germ Dryer (EU2874.0)	Cyclone (CE2874-1)	Packed Bed Scrubber (CE2874-2)
#3 Germ Transfer and Receiver (EU2894.0)	Cyclone (CE2894-1)	

### 12. Compliance Demonstration(s)

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	Performance Testing	NA
PM – State	Yes	Performance Testing	Once Every 3 Calendar Years <sup>1</sup>
PM <sub>10</sub>	Yes <sup>2</sup>	Performance Testing	Once Every 3 Calendar Years <sup>1</sup>
PM <sub>2.5</sub>	Yes <sup>3</sup>	Performance Testing	Once Every 3 Calendar Years <sup>1</sup>
Opacity	Yes	Performance Testing	Once Every 3 Calendar Years <sup>1</sup>
SO <sub>2</sub>	Yes	Performance Testing	Once Every 3 Calendar Years <sup>1</sup>
NO <sub>x</sub>	No	Performance Testing	NA
VOC	Yes	Performance Testing	Once Every 3 Calendar Years <sup>1</sup>
CO	No	Performance Testing	NA
Pb	No	Performance Testing	NA
HAP	No	Performance Testing	NA

<sup>1</sup> After the initial performance test, performance testing for PM, PM<sub>10</sub>, PM<sub>2.5</sub>, opacity, SO<sub>2</sub> and VOC shall be conducted once every 3 calendar years. After completion of three consecutive performance tests that demonstrate compliance with the PM, PM<sub>10</sub>, PM<sub>2.5</sub>, opacity, SO<sub>2</sub> and VOC emission limits in Condition 10, the owner or operator may request to modify the performance testing frequency for PM, PM<sub>10</sub>, PM<sub>2.5</sub>, opacity, SO<sub>2</sub> and VOC.

<sup>2</sup> It is acceptable to test for PM and to assume that all PM emissions are PM<sub>10</sub> emissions.

<sup>3</sup> If performance testing using methods specified in 40 CFR Part 51, Appendix M, 201A with 202 are not performed due to high moisture content (stack saturation), the owner or operator shall demonstrate compliance with the PM<sub>2.5</sub> limit as specified in Condition 10 by using methods specified in 40 CFR Part 60, Appendix A, Method 5 and 40 CFR Part 51, Appendix M, Method 202. Using Method 5, the filterable PM<sub>2.5</sub> fraction shall be determined by conducting internal particle sizing of the dried germ product (immediately following the dryer) to determine the PM<sub>2.5</sub> fraction of the measured total filterable particulate. The entire condensable fraction, measured by using Method 202, shall be considered PM<sub>2.5</sub>.

**12. Compliance Demonstration(s) (Continued)**

**If an initial compliance demonstration specified above is testing**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 no later than one hundred and twenty days (120) days after the installation of the Packed Bed Scrubber (CE2874-2) is completed.

**If subsequent testing is specified above**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner’s authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM <sub>10</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
PM <sub>2.5</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO <sub>2</sub>	1 hour	40 CFR 60, Appendix A, Method 6C
NO <sub>x</sub>	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18 or 40 CFR 63, Appendix A, Method 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

Per 567 IAC 25.1(7)“a”, at the Department’s request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

**13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability**

These emission units are not subject to any New Source Performance Standard or National Emission Standards for Hazardous Air Pollutants (NESHAP) at this time. There are no applicable subparts.

#### 14. Operating Limits

Operating limits for this emission unit shall be:

- A. The owner or operator shall develop an operating and maintenance plan for the cyclone (CE2874-1), including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
- B. The owner or operator shall develop an operating and maintenance plan for the cyclone (CE2894-1), including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
- C. By no later than March 31, 2018, the owner or operator shall install the Packed Bed Scrubber (CE2874-2) to control SO<sub>2</sub> emissions from the #5 Germ Dryer (EU2874.0) and the #3 Germ Transport and Receiver (EU2894.0).
- D. No later than 60 days prior to initiating modification of #5 Germ Dryer (EU2874.0) and #3 Germ Transport and Receiver (EU2894.0) by installing the Packed Bed Scrubber (CE2874-2), the owner or operator shall apply to modify this construction permit. In the application, the owner or operator shall include, at a minimum, the following information to the Department: the manufacturer and model number of the scrubber, the total liquor flow rate to the scrubber, the recycled liquor flow rate to the scrubber, the pH of the liquor used in the scrubber, the reagents used in the liquor of the scrubber, the pressure drop range across the scrubber, the pollutants controlled and an estimate of the scrubber's control efficiency for the different air pollutants.

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#### 15. Operating Condition Monitoring and Recordkeeping

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the cyclone (CE2874-1).
- B. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the cyclone (CE2894-1).
- C. The owner or operator shall maintain a record of the completion date for the installation of the Packed Bed Scrubber (CE2874-2).
- D. The owner or operator shall develop for the Packed Bed Scrubber (CE2874-2) a monitoring system that will monitor and record continuously scrubber operating parameters to ensure continuous compliance with the emission limits. Such parameters shall include, but are not limited to, the total liquor flow rate to the scrubber, the pressure drop across the scrubber, and the pH of the scrubber's liquor.

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#### 16. Continuous Emission Monitoring

Continuous emission monitoring is not required by this permit at this time.

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#### 17. Permit History

#5 Germ Dryer (EP178.0)

Permit No.	Project No.	Description	Date	Stack Testing
91-A-176	91-097	Permit Issued	07/24/91	Yes



#3 Germ Transport and Receiver (EP194.0)

Permit No.	Project No.	Description	Date	Stack Testing
02-A-783	01-517	As-built permit issued	10/11/02	Yes
02-A-783-S1	02-596	Corrected control equipment listed	10/28/02	Yes

**18. Description of Terms and Acronyms**

*The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.*

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
PM <sub>2.5</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM <sub>10</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm <sub>v</sub>	parts per million by volume
ppm <sub>w</sub>	parts per million by weight
RACT	Reasonably Available Control Technology
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

**END OF PERMIT**

# Iowa Department of Natural Resources

## Air Quality Construction Permit

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### Permit Holder

**Firm:** Grain Processing Corporation

**Contact:**

Mick Durham  
Director of Environmental Services

(563) 264-4569

1600 Oregon Street  
Muscatine, IA 52761

**Responsible Party:**

Ron Zitzow  
Senior Vice President

1600 Oregon Street  
Muscatine, IA 52761

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### Permitted Equipment

**Emission Unit(s):** Gluten Plant 1 Pneumatic Transport System (EU1260.0)  
Maximum capacity: 5.1 tons of dried gluten per hour

**Control Equipment:** Fabric Filter Baghouse (CE1260-1)

**Emission Point:** EP531.0

**Equipment Location:** 1600 Oregon Street  
Muscatine, IA 52761

**Plant Number:** 70-01-004

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Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Proj. No.	Description	Date	Stack Testing
03-A-471-S1	15-051	Add PM <sub>10</sub> , PM <sub>2.5</sub> and SO <sub>2</sub> emission limits, modify stack characteristics	07/06/15	Yes



Under the Direction of the Director of  
the Department of Natural Resources

## PERMIT CONDITIONS

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### 1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

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### 2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) "*Maintenance and Repair*".

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### 3. Transferability

As limited by 567 IAC 22.3(3)"F", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment<sup>1</sup> (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

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<sup>1</sup> A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

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### 4. Construction

#### A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

#### 4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:

- (1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
- (2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
- (3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

#### B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:

- (1) Any changes are made to the final plans and specifications submitted for the proposed project; or
- (2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

#### C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:

- (1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
- (2) This current amendment becomes void.

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### 5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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### 6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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## 7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to \$10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

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## 8. Notification, Reporting, and Recordkeeping

- A. The owner or operator shall furnish the Department the following written notifications:
- (1) Per 567 IAC 22.3(3)"b":
    - (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
    - (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
  - (2) Per 567 IAC 22.3(3)"P", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
    - (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
    - (b) at least seven (7) days before equipment relocation.
  - (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324

and include the following information:

- The date of ownership change,
  - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
  - The construction permit number(s) of the equipment changing ownership.
- (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
- the time,
  - the place,
  - the name of the person who will conduct the tests,
  - and other information as required by the Department;

If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

- B. The owner or operator shall furnish the Department with the following reports:
- (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
  - (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
  - (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
  - (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.

**8. Notification, Reporting, and Recordkeeping (Continued)**

- (5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;
- C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)
- D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9549  
Fax: (515) 725-9501

- E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9545  
Fax: (515) 725-9502

- F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	DNR Field Office 6 1023 West Madison Washington, IA 52353-1623 Telephone: (319) 653-2135 Fax: (319) 653-2856
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**9. Appeal Rights**

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

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Director Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319
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### 10. Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr <sup>1</sup>	tons/yr <sup>2</sup>	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	0.42 <sup>3</sup>	NA	0.1 gr/dscf	23.4(7)
PM <sub>10</sub>	0.42 <sup>4</sup>	NA	NA	NAAQS
PM <sub>2.5</sub>	0.122 <sup>5</sup>	NA	NA	NAAQS
Opacity	NA	NA	40% <sup>6, 7</sup>	23.3(2)"d"
Sulfur Dioxide (SO <sub>2</sub> )	0.10 <sup>8</sup>	NA	500 ppm <sub>v</sub>	RACT and 23.3(3)"e"
Nitrogen Oxides (NO <sub>x</sub> )	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	NA	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

<sup>1</sup> The emission limit is expressed as the average of three (3) runs.

<sup>2</sup> The emission limit is a twelve (12) month rolling total.

<sup>3</sup> Emission rate requested to maintain project 03-188 below PSD significance level.

<sup>4</sup> The limit for PM<sub>10</sub> emissions is established to correspond to the emission rate used in the dispersion modeling required by the consent decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV016788, Iowa District Court in and for Muscatine County (July 17, 2006)].

<sup>5</sup> The limit for PM<sub>2.5</sub> emissions is established to address the "Finding of Substantial Inadequacy of Implementation Plan; Call for Iowa SIP Revision" for PM<sub>2.5</sub> published in the Federal Register (76 FR 9706) on February 22, 2011.

<sup>6</sup> The emission limit is a six (6) minute average.

<sup>7</sup> An exceedance of the indicator opacity of no visible emissions will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).

<sup>8</sup> The SO<sub>2</sub> limit is established to address the nonattainment designation for a portion of Muscatine County published in the Federal Register (78 FR 47191) on August 5, 2013. The nonattainment designation is for the 1-hour SO<sub>2</sub> primary national ambient air quality standard promulgated by EPA in 2010 (75 FR 35519, June 22, 2010).

### 11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	60 Feet
Discharge Style	Vertical, unobstructed
Stack Opening (inches)	24 inches
Exhaust Temperature (°F)	95°F
Exhaust Flowrate (scfm)	11,600 scfm

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**12. Compliance Demonstration(s)**

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	NA	NA
PM – State	Yes	Stack Test	One time
PM <sub>10</sub>	Yes <sup>1</sup>	Stack Test	One time
PM <sub>2.5</sub>	Yes <sup>2</sup>	Stack Test	One time
Opacity	Yes	Stack Test	One time
SO <sub>2</sub>	Yes	Stack Test	One time
NO <sub>x</sub>	No	NA	NA
VOC	No	NA	NA
CO	No	NA	NA
Pb	No	NA	NA
HAP	No	NA	NA

<sup>1</sup> It is acceptable to test for PM and to assume that all PM emissions are PM<sub>10</sub> emissions.

<sup>2</sup> If method 40 CFR 51, Appendix M, 201A cannot be performed due to stack blockage, then the owner operator shall add a temporary stack extension to perform method 40 CFR 51, Appendix M, 201A. The temporary stack extension shall conform to 40 CFR Part 60, Appendix A, Method 1.

**If an initial compliance demonstration specified above is testing**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 within ninety (90) days after the issuance date of this permit.

**If subsequent testing is specified above**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner’s authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM <sub>10</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
PM <sub>2.5</sub>	2 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO <sub>2</sub>	1 hour	40 CFR 60, Appendix A, Method 6C
NO <sub>x</sub>	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18 or 40 CFR 63, Appendix A, Method 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.



## 12. Compliance Demonstration(s) (Continued)

Per 567 IAC 25.1(7)"a", at the Department's request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

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## 13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability

- A. This emission unit is not subject to the New Source Performance Standards (NSPS) as there are no subparts for this source category.
- B. This emission unit is not subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) as there are no subparts for this source category at this time.

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## 14. Operating Limits

Operating limits for this emission unit shall be:

- A. The baghouse's (CE1260-1) differential pressure drop shall be maintained between 0.3 and 6 inches water column.
- B. The owner or operator shall properly operate and maintain equipment to monitor the differential pressure drop across the baghouse (CE1260-1). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
- C. The owner or operator shall develop an operating and maintenance plan for the baghouse (CE1260-1), including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.

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## 15. Operating Condition Monitoring and Recordkeeping

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. The owner or operator shall collect and record the pressure drop across the baghouse (CE1260-1), in inches of water, at least once per day. If the pressure drop across the baghouse (CE1260-1) falls outside the range specified in Condition 14 A., the owner or operator shall investigate the baghouse (CE1260-1) and make corrections to it. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the baghouse (CE1260-1) is not in operation.

- B. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the control equipment.

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**16. Continuous Emission Monitoring**

Continuous emission monitoring is not required by this permit at this time.

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**17. Permit History**

Permit No.	Proj. No.	Description	Date	Stack Testing
03-A-471	03-188	Original permit	05/01/03	Yes

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## 18. Description of Terms and Acronyms

*The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.*

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
PM <sub>2.5</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM <sub>10</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm <sub>v</sub>	parts per million by volume
ppm <sub>w</sub>	parts per million by weight
RACT	Reasonably Available Control Technology
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

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**END OF PERMIT**

# Iowa Department of Natural Resources Air Quality Construction Permit

## Permit Holder

**Firm:** Grain Processing Corporation  
**Contact:**

Mick Durham  
Director of Environmental Services

(563) 264-4569

1600 Oregon Street  
Muscatine, IA 52761

**Responsible Party:**

Ron Zitzow  
Senior Vice President

1600 Oregon Street  
Muscatine, IA 52761

## Permitted Equipment

**Emission Unit(s):** Mash Fermenters Nos. 1-23 (EU6301.0 – EU6323.0)  
Maximum Fermenter Capacity: 100,000 gallons (each)  
Mash Fermenters Nos. 24-29 (EU6324.0 – EU6329.0)  
Maximum Fermenter Capacity: 200,000 gallons (each)

**Control Equipment:** Primary Impinjet/Packed Bed Scrubber (CE6301-1)  
Secondary Packed Bed Scrubber (CE6301-2)

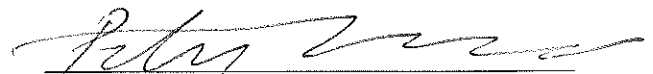
**Emission Point:** EP544.0

**Equipment Location:** 1600 Oregon Street  
Muscatine, IA 52761

**Plant Number:** 70-01-004

Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Proj. No.	Description	Date	Stack Testing
05-A-926-S4	15-362	Add PM <sub>10</sub> , PM <sub>2.5</sub> and SO <sub>2</sub> emission limits	02/15/16	Yes



Under the Direction of the Director of  
the Department of Natural Resources

## PERMIT CONDITIONS

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### 1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

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### 2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) "*Maintenance and Repair*".

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### 3. Transferability

As limited by 567 IAC 22.3(3)'F', this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment<sup>1</sup> (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

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<sup>1</sup> A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

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### 4. Construction

#### A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

#### **4. Construction (Continued)**

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:

- (1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
- (2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
- (3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

#### **B. Changes to Plans and Specifications**

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:

- (1) Any changes are made to the final plans and specifications submitted for the proposed project; or
- (2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

#### **C. Amended Permits**

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:

- (1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
- (2) This current amendment becomes void.

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### **5. Credible Evidence**

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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### **6. Excess Emissions**

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

## 7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to \$10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

## 8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:

- (1) Per 567 IAC 22.3(3)"b":
  - (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
  - (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
- (2) Per 567 IAC 22.3(3)"f", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
  - (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
  - (b) at least seven (7) days before equipment relocation.
- (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324

and include the following information:

- The date of ownership change,
  - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
  - The construction permit number(s) of the equipment changing ownership.
- (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
    - the time,
    - the place,
    - the name of the person who will conduct the tests,
    - and other information as required by the Department;

If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:

- (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
- (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
- (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
- (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.

**8. Notification, Reporting, and Recordkeeping (Continued)**

(5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;

C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)

D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9549  
Fax: (515) 725-9501

E. The owner or operator shall send correspondence concerning stack testing to:

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Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9545  
Fax: (515) 725-9502

F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	DNR Field Office 6 1023 West Madison Washington, IA 52353 Telephone: (319) 653-2135 Fax: (319) 653-2856
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**9. Appeal Rights**

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

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Director Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319
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**10. Emission Limits**

The following emission limits shall not be exceeded:

Pollutant	lb/hr <sup>1</sup>	tons/yr <sup>2</sup>	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	0.49 <sup>3</sup>	NA	0.1 gr/dscf	Requested Limit, 23.4(7)
PM <sub>10</sub>	0.49 <sup>4</sup>	NA	NA	NAAQS
PM <sub>2.5</sub>	0.185 <sup>5</sup>	NA	NA	NAAQS
Opacity	NA	NA	40% <sup>6, 7</sup>	23.3(2)"d"
Sulfur Dioxide (SO <sub>2</sub> )	0.258 <sup>8</sup>	NA	500 ppm <sub>v</sub>	RACT and 23.3(3)"e"
Nitrogen Oxides (NO <sub>x</sub> )	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	8.75 <sup>3</sup>	NA	NA	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

<sup>1</sup> The emission limit is expressed as the average of three (3) runs.

<sup>2</sup> The emission limit is a twelve (12) month rolling total.

<sup>3</sup> Requested emission limit maintains projects 06-168 and 07-094 below PSD significance rates.

<sup>4</sup> The limit for PM<sub>10</sub> emissions is established to correspond to the emission rate used in the dispersion modeling required by the consent decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV016788, Iowa District Court in and for Muscatine County (July 17, 2006)].

<sup>5</sup> The limit for PM<sub>2.5</sub> emissions is established to address the "Finding of Substantial Inadequacy of Implementation Plan; Call for Iowa SIP Revision" for PM<sub>2.5</sub> published in the Federal Register (76 FR 9706) on February 22, 2011.

<sup>6</sup> The emission limit is a six (6) minute average.

<sup>7</sup> An exceedance of the indicator opacity of no visible emissions will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).

<sup>8</sup> The SO<sub>2</sub> limit is established to address the nonattainment designation for a portion of Muscatine County published in the Federal Register (78 FR 47191) on August 5, 2013. The nonattainment designation is for the 1-hour SO<sub>2</sub> primary national ambient air quality standard promulgated by EPA in 2010 (75 FR 35519, June 22, 2010).

**11. Emission Point Characteristics**

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	50 Feet
Discharge Style	Vertical, unobstructed
Stack Opening (inches)	30 inches
Exhaust Temperature (°F)	Ambient
Exhaust Flowrate (scfm)	6700 scfm

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**12. Compliance Demonstration(s)**

Pollutant	Compliance Demonstration <sup>1</sup>	Compliance Methodology	Frequency
PM – Federal	No	NA	NA
PM – State	Yes	Stack Test	One-time
PM <sub>10</sub>	Yes <sup>2</sup>	Stack Test	One-time
PM <sub>2.5</sub>	Yes	Stack Test	One-time
Opacity	Yes	Stack Test	One-time
SO <sub>2</sub>	Yes	Stack Test	Once Every 3 Calendar Years <sup>3</sup>
NO <sub>x</sub>	No	NA	NA
VOC	No	NA	NA
CO	No	NA	NA
Pb	No	NA	NA
HAP	No	NA	NA

<sup>1</sup> Compliance testing shall be conducted when the emissions units are exhausting to the atmosphere through EP544.0 at the maximum exhaust flow rate.

<sup>2</sup> It is acceptable to test for PM and to assume that all PM emissions are PM<sub>10</sub> emissions.

<sup>3</sup> After the initial performance test, performance testing for SO<sub>2</sub> shall be conducted once every 3 calendar years. After completion of three consecutive performance tests that demonstrate compliance with the SO<sub>2</sub> emission limit in condition 10, the owner or operator may request to modify the performance testing frequency for SO<sub>2</sub>.

**If an initial compliance demonstration specified above is testing**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 within one hundred and twenty (120) days after the issuance date of this permit.

**If subsequent testing is specified above**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner’s authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM <sub>10</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
PM <sub>2.5</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO <sub>2</sub>	1 hour	40 CFR 60, Appendix A, Method 6C
NO <sub>x</sub>	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18 or 40 CFR 63, Appendix A, Method 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
HAP	1 hour	40 CFR 60, Appendix A, Method 18 or 40 CFR 63, Appendix A, Method 320

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

## 12. Compliance Demonstration(s) (Continued)

Per 567 IAC 25.1(7)"a", at the Department's request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

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## 13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability

- A. This emission unit is not subject to the New Source Performance Standards (NSPS) as there are no subparts for this source category.
- B. The Mash Fermenters Nos. 1 - 29 (EU6301.0 to EU6329.0) are subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Miscellaneous Organic Chemical Manufacturing (40 CFR Part 63, Subpart FFFF). The fermenters are also subject to the NESHAP General Provisions (40 CFR Part 63, Subpart A). The mash fermenters are considered a *continuous operation* in accordance with the definition in §63.2550.

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## 14. Operating Limits

Operating limits for this emission unit shall be:

- A. The total liquor flowrate of the Primary Packed Bed Scrubber (CE6301-1) shall be maintained at or above 6 gallons per minute.
- B. The owner or operator shall properly operate and maintain equipment to monitor the total liquor flow rate to the Primary Packed Bed Scrubber (CE6301-1). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
- C. The owner or operator shall develop an operating and maintenance plan for the Primary Packed Bed Scrubber (CE6301-1), including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
- D. The total liquor flowrate of the Secondary Packed Bed Scrubber (CE6301-2) shall be maintained at or above 10 gallons per minute.
- E. The differential pressure drop across the Secondary Packed Bed Scrubber (CE6301-2) shall be maintained between 1 and 21 inches water column.
- F. The owner or operator shall properly operate and maintain equipment to monitor the total liquor flow rate to the Secondary Packed Bed Scrubber (CE6301-2). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.

#### **14. Operating Limits (continued)**

- G. The owner or operator shall properly operate and maintain equipment to monitor the differential pressure drop across the Secondary Packed Bed scrubber (CE6301-2). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
- H. The owner or operator shall develop an operating and maintenance plan for the Secondary Packed Bed Scrubber (CE6301-2), including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.

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#### **15. Operating Condition Monitoring and Recordkeeping**

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. The owner or operator shall collect and record the total liquor flow rate to the Primary Packed Bed Scrubber (CE6301-1), in gallons per minute, at least once per day. If the total liquor flow rate to the Primary Packed Bed Scrubber (CE6301-1) falls below the value specified in Condition 14 A., the owner or operator shall investigate the Primary Packed Bed Scrubber (CE 6301-1) and make corrections to it. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the Primary Packed Bed Scrubber (CE6301-1) is not in operation.
- B. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Primary Packed Bed Scrubber (CE6301-1).
- C. The owner or operator shall collect and record the total liquor flow rate to the Secondary Packed Bed Scrubber (CE6301-2), in gallons per minute, continuously. If the total liquor flow rate to the Secondary Packed Bed Scrubber (CE6301-2) falls below the value specified in Condition 14 D., the owner or operator shall investigate the Secondary Packed Bed Scrubber (CE6301-2) and make corrections to it. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the Secondary Packed Bed Scrubber (CE6301-2) is not in operation.
- D. The owner or operator shall collect and record the pressure drop across the Secondary Packed Bed Scrubber (CE6301-2), in inches of water, continuously. If the pressure drop across the Secondary Packed Bed Scrubber (CE6301-2) falls outside the range specified in Condition 14 E., the owner or operator shall investigate the Secondary Packed Bed Scrubber (CE6301-2) and make corrections to it. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the Secondary Packed Bed Scrubber (CE6301-2) is not in operation.
- E. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Packed Bed Scrubber (CE 6301-2).

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#### **16. Continuous Emission Monitoring**

Continuous emission monitoring is not required by this permit at this time.

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**17. Permit History**

Permit No.	Proj. No.	Description	Date	Stack Testing
05-A-926	05-645	Original Permit.	12/02/2005	No
05-A-926-S1	06-168	Correct Permit, Emissions Increase.	07/24/2006	Yes
05-A-926-S2	07-094	Modify VOC and PM Emission Limits.	06/14/2007	No
05-A-926-S3	08-069	Increase Stack Height.	02/20/2008	No

**18. Description of Terms and Acronyms**

*The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.*

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
PM <sub>2.5</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM <sub>10</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm <sub>v</sub>	parts per million by volume
ppm <sub>w</sub>	parts per million by weight
RACT	Reasonably Available Control Technology
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

**END OF PERMIT**

# Iowa Department of Natural Resources

## Air Quality Construction Permit

### Permit Holder

**Firm:** Grain Processing Corporation

**Contact:**

Mick Durham  
Director of Environmental Services

(563) 264-4569

1600 Oregon Street  
Muscatine, IA 52761

**Responsible Party:**

Ron Zitzow  
Senior Vice President

1600 Oregon Street  
Muscatine, IA 52761

### Permitted Equipment

**Emission Unit(s):** Seventeen Expellers for Spent Germ Hulls  
(See condition 11 for emission unit list)  
Maximum capacity: 16.42 tons germ hulls per hour

**Control Equipment:** Two Baghouses in parallel (CE2876-1, CE2882-1)

**Emission Point:** EP545.0

**Equipment Location:** 1600 Oregon Street  
Muscatine, IA 52761

**Plant Number:** 70-01-004

Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Proj. No.	Description	Date	Stack Testing
06-A-1261-S1	15-050	Modify PM, PM <sub>10</sub> emission limits, add PM <sub>2.5</sub> , SO <sub>2</sub> and VOC emission limits	12/10/15	Yes



Under the Direction of the Director of  
the Department of Natural Resources

## PERMIT CONDITIONS

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### 1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

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### 2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) "*Maintenance and Repair*".

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### 3. Transferability

As limited by 567 IAC 22.3(3)"f", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment<sup>1</sup> (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

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<sup>1</sup> A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

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### 4. Construction

#### A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

#### 4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:

- (1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
- (2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
- (3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

#### B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:

- (1) Any changes are made to the final plans and specifications submitted for the proposed project; or
- (2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

#### C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:

- (1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
- (2) This current amendment becomes void.

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### 5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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### 6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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## 7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to \$10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

## 8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:

- (1) Per 567 IAC 22.3(3)"b":
  - (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
  - (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
- (2) Per 567 IAC 22.3(3)"f", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
  - (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
  - (b) at least seven (7) days before equipment relocation.
- (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324

and include the following information:

- The date of ownership change,
  - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
  - The construction permit number(s) of the equipment changing ownership.
- (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
- the time,
  - the place,
  - the name of the person who will conduct the tests,
  - and other information as required by the Department;

If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:

- (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
- (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
- (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
- (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.

**8. Notification, Reporting, and Recordkeeping (Continued)**

(5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;

C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)

D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9549  
Fax: (515) 725-9501

E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9545  
Fax: (515) 725-9502

F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	DNR Field Office 6 1023 West Madison Washington, IA 52353-1623 Telephone: (319) 653-2135 Fax: (319) 653-2856
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**9. Appeal Rights**

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

Director Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319
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**10a. Lowest Achievable Emission Rate (LAER) Emission Limits**

The following emission limit shall not be exceeded:

Pollutant	lb/hr <sup>1</sup>	tons/yr <sup>2</sup>	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) - State	NA	NA	0.078 gr/scf <sup>3</sup>	31.20(1)"d", LAER

<sup>1</sup> The emission limit is expressed as the average of three (3) runs.

<sup>2</sup> The emission limit is a twelve (12) month rolling total.

<sup>3</sup> The emission units associated with the East Baghouse (CE 2882-1) are subject to a Lowest Achievable Emission Rate (LAER) limit of 0.078 gr/scf per permit 85-A-044-S1. As is listed in Permit Condition 11, those units are Expellers #7 – 12, 14, 16, and 17 (EUs 2882 – 2887, 2889, 2892 – 2893, respectively). Since the LAER emission limit cannot be removed, the PM emissions from the exit of the East Baghouse are limited to 0.078 gr/scf.

**10b. Other Emission Limits**

The following emission limits for emission point EP545.0 shall not be exceeded:

Pollutant	lb/hr <sup>1</sup>	tons/yr <sup>2</sup>	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	1.50 <sup>3</sup>	NA	0.1 gr/dscf	23.4(7)
PM <sub>10</sub>	1.50 <sup>4</sup>	NA	NA	NAAQS
PM <sub>2.5</sub>	0.694 <sup>5</sup>	NA	NA	NAAQS
Opacity	NA	NA	40% <sup>6,7</sup>	23.3(2)"d"
Sulfur Dioxide (SO <sub>2</sub> )	0.50 <sup>8</sup>	NA	10.0 ppm <sub>v,d</sub> <sup>1,9</sup>	RACT
Nitrogen Oxides (NO <sub>x</sub> )	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	18.7 ppm <sub>v,d</sub> <sup>1,9</sup>	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

<sup>1</sup> The emission limit is expressed as the average of three (3) runs.

<sup>2</sup> The emission limit is a twelve (12) month rolling total.

<sup>3</sup> Limit requested by GPC to restrict potential emissions.

<sup>4</sup> The limit for PM<sub>10</sub> emissions is established to correspond to the emission rate used in the dispersion modeling required by the consent decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV016788, Iowa District Court in and for Muscatine County (July 17, 2006)].

<sup>5</sup> The limit for PM<sub>2.5</sub> emissions is established to address the "Finding of Substantial Inadequacy of Implementation Plan; Call for Iowa SIP Revision" for PM<sub>2.5</sub> published in the Federal Register (76 FR 9706) on February 22, 2011.

<sup>6</sup> The emission limit is a six (6) minute average.

<sup>7</sup> An exceedance of the indicator opacity of no visible emissions will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).

<sup>8</sup> The SO<sub>2</sub> limit is established to address the nonattainment designation for a portion of Muscatine County published in the Federal Register (78 FR 47191) on August 5, 2013. The nonattainment designation is for the 1-hour SO<sub>2</sub> primary national ambient air quality standard promulgated by EPA in 2010 (75 FR 35519, June 22, 2010).

<sup>9</sup> The limit for SO<sub>2</sub> and VOC emissions as required by the consent order, judgment, and decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV020979, Iowa District Court for Muscatine County (March 27, 2014)].

### 11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	95 Feet
Discharge Style	Vertical, unobstructed
Stack Opening (inches)	36 inches
Exhaust Temperature (°F)	115°F
Exhaust Flowrate (scfm)	20,769 scfm

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

The following emission units and control equipment are connected to EP 545.0:

Emission Unit Description	Maximum Rated Capacity (tons/hr)	Control Equipment
#7 Expeller (EU2882.0)	0.978	East Baghouse (CE 2882-1)
#8 Expeller (EU2883.0)	0.978	
#9 Expeller (EU2884.0)	0.978	
#10 Expeller (EU2885.0)	0.978	
#11 Expeller (EU2886.0)	0.978	
#12 Expeller (EU2887.0)	0.978	
#14 Expeller (EU2889.0)	0.978	
#16 Expeller (EU2892.0)	0.978	West Baghouse (CE 2876-1)
#17 Expeller (EU2893.0)	0.978	
#1 Expeller (EU2876.0)	0.95	
#2 Expeller (EU2877.0)	0.95	
#3 Expeller (EU2878.0)	0.95	
#4 Expeller (EU2879.0)	0.95	
#5 Expeller (EU2880.0)	0.95	
#6 Expeller (EU2881.0)	0.95	
#13 Expeller (EU2888.0)	0.95	
#15 Expeller (EU2889.0)	0.95	

**12. Compliance Demonstration(s)**

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	NA	NA
PM – State	Yes	Stack test	One Time
PM <sub>10</sub>	Yes <sup>1</sup>	Stack test	One Time
PM <sub>2.5</sub>	Yes	Stack test	One Time
Opacity	Yes	Stack test	One Time
SO <sub>2</sub>	Yes	Stack test	One time
NO <sub>x</sub>	No	NA	NA
VOC	Yes	Stack test	One time
CO	No	NA	NA
Pb	No	NA	NA
HAP	No	NA	NA

<sup>1</sup> It is acceptable to test for PM and to assume that all PM emissions are PM<sub>10</sub> emissions.

**If an initial compliance demonstration specified above is testing**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 within one hundred and eighty (180) days after the issuance date of this permit.

**If subsequent testing is specified above**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner’s authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM <sub>10</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
PM <sub>2.5</sub>	2 hours	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO <sub>2</sub>	1 hour	40 CFR 60, Appendix A, Method 6C
NO <sub>x</sub>	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18 or 40 CFR 63, Appendix A, Method 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

Per 567 IAC 25.1(7)“a”, at the Department’s request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

## 12. Compliance Demonstration(s) (Continued)

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

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## 13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability

- A. This emission unit is not subject to the New Source Performance Standards (NSPS) as there are no subparts for this source category.
  - B. This emission unit is not subject to the National Emission Standards for Hazardous Air Pollutants
- 

## 14. Operating Limits

Operating limits for this emission unit shall be:

- A. The differential pressure drop across the Baghouse (CE2876-1) shall be maintained between 0.1 and 4 inches water column.
  - B. The differential pressure drop across the Baghouse (CE2882-1) shall be maintained between 0.1 and 4 inches water column.
  - C. The owner or operator shall properly operate and maintain equipment to monitor the differential pressure drop across the Baghouse (CE2876-1). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
  - D. The owner or operator shall properly operate and maintain equipment to monitor the differential pressure drop across the Baghouse (CE2882-1). The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
  - E. The owner or operator shall develop an operating and maintenance plan for the Baghouse (CE2876-1), including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
  - F. The owner or operator shall develop an operating and maintenance plan for the Baghouse (CE2882-1), including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
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## 15. Operating Condition Monitoring and Recordkeeping

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. The owner or operator shall collect and record the pressure drop across the Baghouse (CE2876-1), in inches of water, at least once per day. If the pressure drop across the Baghouse (CE2876-1) falls outside the range specified in Condition 14 A., the owner or operator shall investigate the Baghouse (CE2876-1) and make corrections to it. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the Baghouse (CE2876-1) is not in operation.

- B. The owner or operator shall collect and record the pressure drop across the Baghouse (CE2882-1), in inches of water, at least once per day. If the pressure drop across the Baghouse (CE2882-1) falls outside the range specified in Condition 14 B., the owner or operator shall investigate the Baghouse (CE2882-1) and make corrections to it. The owner or operator shall maintain a record of all corrective actions taken. This requirement shall not apply on the days that the Baghouse (CE2882-1) is not in operation.
- C. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Baghouse (CE2876-1).
- D. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Baghouse (CE2882-1).

**16. Continuous Emission Monitoring**

Continuous emission monitoring is not required by this permit at this time.

**17. Permit History**

Permit No.	Proj. No.	Description	Date	Stack Testing
06-A-1261	06-610	Original Permit (replaced permits 76-A-091 & 85-A-044-S1)	12/13/06	Yes

**18. Description of Terms and Acronyms**

*The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.*

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
PM <sub>2.5</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM <sub>10</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns

PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm <sub>v</sub>	parts per million by volume
ppm <sub>w</sub>	parts per million by weight
RACT	Reasonably Available Control Technology
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

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**END OF PERMIT**



# Iowa Department of Natural Resources

## Air Quality Construction Permit

### Permit Holder

**Firm:** Grain Processing Corporation

**Contact:**

Mick Durham  
Director of Environmental Services

(563) 264-4569

1600 Oregon Street  
Muscatine, IA 52761

**Responsible Party:**

Ron Zitzow  
Senior Vice President

1600 Oregon Street  
Muscatine, IA 52761

### Permitted Equipment

**Emission Unit(s):** #1 Alpha Laval Centrifuge in Dryer House 4 (DH4) (EU1264.0)  
Maximum Capacity: 500 gallons of whole stillage per minute

**Control Equipment:** None

**Emission Point:** EP546.0

**Equipment Location:** 1600 Oregon Street  
Muscatine, IA 52761

**Plant Number:** 70-01-004

Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Proj. No.	Description	Date	Stack Testing
11-A-338-S1	15-051	Modify PM <sub>10</sub> , PM <sub>2.5</sub> , and SO <sub>2</sub> emission limits; change EU description	07/06/15	No



Under the Direction of the Director of  
the Department of Natural Resources

## PERMIT CONDITIONS

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### 1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

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### 2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) "*Maintenance and Repair*".

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### 3. Transferability

As limited by 567 IAC 22.3(3)"F", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment<sup>1</sup> (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

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<sup>1</sup> A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

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### 4. Construction

#### A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

#### 4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:

- (1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
- (2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
- (3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

#### B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:

- (1) Any changes are made to the final plans and specifications submitted for the proposed project; or
- (2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

#### C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:

- (1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
- (2) This current amendment becomes void.

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### 5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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### 6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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## 7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to \$10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

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## 8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:

- (1) Per 567 IAC 22.3(3)"b":
  - (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
  - (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
- (2) Per 567 IAC 22.3(3)"f", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
  - (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
  - (b) at least seven (7) days before equipment relocation.
- (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324

and include the following information:

- The date of ownership change,
  - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
  - The construction permit number(s) of the equipment changing ownership.
- (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
    - the time,
    - the place,
    - the name of the person who will conduct the tests,
    - and other information as required by the Department;

If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:

- (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
- (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
- (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
- (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.

**8. Notification, Reporting, and Recordkeeping (Continued)**

- (5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;
- C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)
- D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9549  
Fax: (515) 725-9501

- E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9545  
Fax: (515) 725-9502

- F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	DNR Field Office 6 1023 West Madison Washington, IA 52353-1623 Telephone: (319) 653-2135 Fax: (319) 653-2856
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**9. Appeal Rights**

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

Director Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319
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## 10. Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr <sup>1</sup>	tons/yr <sup>2</sup>	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	0.10 <sup>3</sup>	NA	0.1 gr/dscf	23.4(7)
PM <sub>10</sub>	0.001 <sup>3,4</sup>	NA	NA	NAAQS and PSD Synthetic Minor
PM <sub>2.5</sub>	0.0003 <sup>3,5</sup>	NA	NA	NAAQS and PSD Synthetic Minor
Opacity	NA	NA	40% <sup>6,7</sup>	23.3(2)"d"
Sulfur Dioxide (SO <sub>2</sub> )	0.0034 <sup>3,8</sup>	NA	500 ppm <sub>v</sub>	RACT and 23.3(3)"e"
Nitrogen Oxides (NO <sub>x</sub> )	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	5.72 <sup>3</sup>	NA	NA	PSD Synthetic Minor
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

<sup>1</sup> The emission limit is expressed as the average of three (3) runs.

<sup>2</sup> The emission limit is a twelve (12) month rolling total.

<sup>3</sup> Limits established to avoid PSD applicability and to keep Project 10-713 minor for PSD.

<sup>4</sup> The limit for PM<sub>10</sub> emissions is established to correspond to the emission rate used in the dispersion modeling required by the consent decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV016788, Iowa District Court in and for Muscatine County (July 17, 2006)].

<sup>5</sup> The limit for PM<sub>2.5</sub> emissions is established to address the "Finding of Substantial Inadequacy of Implementation Plan; Call for Iowa SIP Revision" for PM<sub>2.5</sub> published in the Federal Register (76 FR 9706) on February 22, 2011.

<sup>6</sup> The emission limit is a six (6) minute average.

<sup>7</sup> An exceedance of the indicator opacity of no visible emissions will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).

<sup>8</sup> The SO<sub>2</sub> limit is established to address the nonattainment designation for a portion of Muscatine County published in the Federal Register (78 FR 47191) on August 5, 2013. The nonattainment designation is for the 1-hour SO<sub>2</sub> primary national ambient air quality standard promulgated by EPA in 2010 (75 FR 35519, June 22, 2010).

## 11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	25 Feet
Discharge Style	Vertical, unobstructed
Stack Opening (inches)	6 inches
Exhaust Temperature (°F)	92°F
Exhaust Flowrate (scfm)	*

\*Velocity pressure below detection level of 0.005 inches of water column. Stack modeled with exit velocity of 0.001 m/s.

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**12. Compliance Demonstration(s)**

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	NA	NA
PM – State	No	NA	NA
PM <sub>10</sub>	No	NA	NA
PM <sub>2.5</sub>	No	NA	NA
Opacity	No	NA	NA
SO <sub>2</sub>	No	NA	NA
NO <sub>x</sub>	No	NA	NA
VOC	No	NA	NA
CO	No	NA	NA
Pb	No	NA	NA
HAP	No	NA	NA

**If an initial compliance demonstration specified above is testing**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 within sixty (60) days after achieving maximum production rate and no later than one hundred eighty (180) days after the initial startup date of the proposed equipment.

**If subsequent testing is specified above**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner’s authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM <sub>10</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
PM <sub>2.5</sub>	2 hours	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO <sub>2</sub>	1 hour	40 CFR 60, Appendix A, Method 6C
NO <sub>x</sub>	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18 or 40 CFR 63, Appendix A, Method 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

## **12. Compliance Demonstration(s) (Continued)**

Per 567 IAC 25.1(7)"a", at the Department's request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

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## **13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability**

- A. This emission unit is not subject to the New Source Performance Standards (NSPS) as there are no subparts for this source category.
- B. This emission unit is not subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) as there are no subparts for this source category at this time.

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## **14. Operating Limits**

Operating limits for this emission unit shall be:

- A. The #4 Sharples shall be permanently shutdown no later than six months after the start-up of the DH4, #1 Alpha Laval.

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## **15. Operating Condition Monitoring and Recordkeeping**

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. Maintain a record of the date the DH4, #3 Alpha Laval starts operations and the date the #4 Sharples ceases operation.

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## **16. Continuous Emission Monitoring**

Continuous emission monitoring is not required by this permit at this time.

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## **17. Permit History**



Permit No.	Proj. No.	Description	Date	Stack Testing
11-A-338	10-713	Original PSD Synthetic Minor Permit	05/23/11	Yes

## 18. Description of Terms and Acronyms

*The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.*

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
PM <sub>2.5</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM <sub>10</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm <sub>v</sub>	parts per million by volume
ppm <sub>w</sub>	parts per million by weight
RACT	Reasonably Available Control Technology
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

**END OF PERMIT**

# Iowa Department of Natural Resources

## Air Quality Construction Permit

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### Permit Holder

**Firm:** Grain Processing Corporation

**Contact:**

Mick Durham  
Director of Environmental Services  
  
(563) 264-4569

**Responsible Party:**

Ron Zitzow  
Senior Vice President

1600 Oregon Street  
Muscatine, IA 52761

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### Permitted Equipment

**Emission Unit(s):** East Tank and C-400 Thrus Tank  
See Condition 11 for equipment list

**Control Equipment:** None

**Emission Point:** EP551.0

**Equipment Location:** 1600 Oregon Street  
Muscatine, IA 52761

**Plant Number:** 70-01-004

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Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Project No.	Description	Date	Stack Testing
15-A-354	15-050	Original Permit	12/10/15	Yes



Under the Direction of the Director of  
the Department of Natural Resources

## PERMIT CONDITIONS

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### 1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

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### 2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) "*Maintenance and Repair*".

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### 3. Transferability

As limited by 567 IAC 22.3(3)"f", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment<sup>1</sup> (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

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<sup>1</sup> A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

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### 4. Construction

#### A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

#### 4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:

- (1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
- (2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
- (3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

##### B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:

- (1) Any changes are made to the final plans and specifications submitted for the proposed project; or
- (2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

##### C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:

- (1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
- (2) This current amendment becomes void.

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#### 5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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#### 6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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## 7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to \$10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

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## 8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:

- (1) Per 567 IAC 22.3(3)"b":
  - (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
  - (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
- (2) Per 567 IAC 22.3(3)"f", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
  - (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
  - (b) at least seven (7) days before equipment relocation.
- (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324

and include the following information:

- The date of ownership change,
  - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
  - The construction permit number(s) of the equipment changing ownership.
- (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
    - the time,
    - the place,
    - the name of the person who will conduct the tests,
    - and other information as required by the Department;

If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:

- (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
- (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
- (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
- (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.
- (5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;

## 8. Notification, Reporting, and Recordkeeping (Continued)

C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)

D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9549  
Fax: (515) 725-9501

E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9545  
Fax: (515) 725-9502

F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	DNR Field Office 6 1023 West Madison Washington, IA 52353 Telephone: (319) 653-2135 Fax: (319) 653-2856
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## 9. Appeal Rights

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

Director Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319
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### 10. Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr <sup>1</sup>	tons/yr <sup>2</sup>	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	0.011 <sup>3</sup>	NA	0.1 gr/dscf	23.4(7)
PM <sub>10</sub>	0.011 <sup>3,4</sup>	NA	NA	NAAQS
PM <sub>2.5</sub>	0.011 <sup>3,5</sup>	NA	NA	NAAQS
Opacity	NA	NA	40% <sup>6,7</sup>	23.3(2)"d"
Sulfur Dioxide (SO <sub>2</sub> )	0.0840 <sup>3,8</sup>	NA	500 ppm <sub>v</sub>	RACT, 23.3(3)"e"
Nitrogen Oxides (NO <sub>x</sub> )	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	5.72 <sup>3</sup>	NA	NA	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

<sup>1</sup>The emission limit is expressed as the average of three (3) runs.

<sup>2</sup>The emission limit is a twelve (12) month rolling total.

<sup>3</sup> Requested emission limits maintain project 10-713 below PSD significant net emissions increase for PM, PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, and VOC.

<sup>4</sup>The limit for PM<sub>10</sub> emissions is established to correspond to the emission rate used in the dispersion modeling required by the consent decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV016788, Iowa District Court in and for Muscatine County (July 17, 2006)].

<sup>5</sup> The limit for PM<sub>2.5</sub> emissions is established to address the "Finding of Substantial Inadequacy of Implementation Plan; Call for Iowa SIP Revision" for PM<sub>2.5</sub> published in the Federal Register (76 FR 9706) on February 22, 2011.

<sup>6</sup> The emission limit is a six (6) minute average.

<sup>7</sup> An exceedance of the indicator opacity of 10% will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).

<sup>8</sup> The SO<sub>2</sub> limit is established to address the nonattainment designation for a portion of Muscatine County published in the Federal Register (78 FR 47191) on August 5, 2013. The nonattainment designation is for the 1-hour SO<sub>2</sub> primary national ambient air quality standard promulgated by EPA in 2010 (75 FR 35519, June 22, 2010).

### 11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	69 Feet
Discharge Style	Vertical Unobstructed
Stack Opening (inches, diameter)	6 inches
Exhaust Temperature (°F)	200 °F
Exhaust Flowrate (scfm)	189 scfm

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

**11. Emission Point Characteristics (continued)**

The following emission units are vented directly or indirectly through this emission point:

Emission Unit Description	Maximum Rated Capacity (tons/hr)	Liquid Receiving Tank
DH4, #1 Alpha Laval Centrifuge (EU1264.0)	500 GPM stillage feed rate	East Tank
DH4, #3 Sharples Centrifuge (EU1264.2)	300 GPM stillage feed rate	C-400 Thrus Tank

**12. Compliance Demonstration(s)**

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	Performance Testing	NA
PM – State	No	Performance Testing	NA
PM <sub>10</sub>	No	Performance Testing	NA
PM <sub>2.5</sub>	No	Performance Testing	NA
Opacity	No	Performance Testing	NA
SO <sub>2</sub>	No	Performance Testing	NA
NO <sub>x</sub>	No	Performance Testing	NA
VOC	Yes	Performance Testing	One Time
CO	No	Performance Testing	NA
Pb	No	Performance Testing	NA
HAP	No	Performance Testing	NA

**If an initial compliance demonstration specified above is testing**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 no later than one hundred and twenty (120) days after the issuance date of this permit.

**If subsequent testing is specified above**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner’s authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM <sub>10</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
PM <sub>2.5</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO <sub>2</sub>	1 hour	40 CFR 60, Appendix A, Method 6C
NO <sub>x</sub>	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18 or 40 CFR 63, Appendix A, Method 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.



## **12. Compliance Demonstration(s) (Continued)**

Per 567 IAC 25.1(7)"a", at the Department's request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

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## **13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability**

These emission units are not subject to any New Source Performance Standard or National Emission Standards for Hazardous Air Pollutants (NESHAP) at this time. There are no applicable subparts.

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## **14. Operating Limits**

Operating limits for this emission unit shall be:

- A. This permit establishes no operating limit for these emission units.

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## **15. Operating Condition Monitoring and Recordkeeping**

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. This permit establishes no monitoring and recordkeeping requirements for these emission units.

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## **16. Continuous Emission Monitoring**

Continuous emission monitoring is not required by this permit at this time.

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### 17. Permit History

Permit No.	Project No.	Description	Date	Stack Testing

### 18. Description of Terms and Acronyms

*The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.*

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
PM <sub>2.5</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM <sub>10</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm <sub>v</sub>	parts per million by volume
ppm <sub>w</sub>	parts per million by weight
RACT	Reasonably Available Control Technology
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

**END OF PERMIT**

# Iowa Department of Natural Resources Air Quality Construction Permit

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## Permit Holder

**Firm:** Grain Processing Corporation

**Contact:**

Mick Durham  
Director of Environmental Services

(563) 264-4569

1600 Oregon Street  
Muscatine, IA 52761

**Responsible Party:**

Ron Zitzow  
Senior Vice President

1600 Oregon Street  
Muscatine, IA 52761

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## Permitted Equipment

**Emission Unit(s):** Wet Feed Pad and Loadout for feed with 10% moisture content or greater (EU1276.0) Maximum Capacity: 1500 tons of feed per day

**Control Equipment:** None

**Emission Point:** EP WETFEED

**Equipment Location:** 1600 Oregon Street  
Muscatine, IA 52761

**Plant Number:** 70-01-004

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Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Proj. No.	Description	Date	Stack Testing
15-A-199	15-050	Permit Source	12/10/15	No



Under the Direction of the Director of  
the Department of Natural Resources

## PERMIT CONDITIONS

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### 1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

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### 2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) "*Maintenance and Repair*".

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### 3. Transferability

As limited by 567 IAC 22.3(3)"F", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment<sup>1</sup> (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

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<sup>1</sup> A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

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### 4. Construction

#### A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

#### 4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:

- (1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
- (2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
- (3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

#### B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:

- (1) Any changes are made to the final plans and specifications submitted for the proposed project; or
- (2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

#### C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:

- (1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
- (2) This current amendment becomes void.

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### 5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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### 6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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## 7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to \$10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

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## 8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:

- (1) Per 567 IAC 22.3(3)"b":
  - (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
  - (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
- (2) Per 567 IAC 22.3(3)"f", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
  - (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
  - (b) at least seven (7) days before equipment relocation.
- (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324

and include the following information:

- The date of ownership change,
  - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
  - The construction permit number(s) of the equipment changing ownership.
- (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
- the time,
  - the place,
  - the name of the person who will conduct the tests,
  - and other information as required by the Department;

If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:

- (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
- (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
- (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
- (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.

**8. Notification, Reporting, and Recordkeeping (Continued)**

- (5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;
- C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)
- D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9549  
Fax: (515) 725-9501

- E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator  
Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite 1  
Windsor Heights, IA 50324  
Telephone: (515) 725-9545  
Fax: (515) 725-9502

- F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	DNR Field Office 6 1023 West Madison Washington, IA 52353-1623 Telephone: (319) 653-2135 Fax: (319) 653-2856
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**9. Appeal Rights**

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

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Director Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9 <sup>th</sup> Street Des Moines, IA 50319
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### 10. Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr <sup>1</sup>	tons/yr <sup>2</sup>	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	NA	NA	0.1 gr/dscf	23.4(7)
PM <sub>10</sub>	0.068 <sup>3</sup>	NA	NA	NAAQS
PM <sub>2.5</sub>	0.038 <sup>4</sup>	NA	NA	NAAQS
Opacity	NA	NA	40% <sup>5</sup>	23.3(2)"d"
Sulfur Dioxide (SO <sub>2</sub> )	0.15 <sup>6</sup>	NA	500 ppm <sub>v</sub>	RACT and 23.3(3)"e"
Nitrogen Oxides (NO <sub>x</sub> )	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	NA	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

<sup>1</sup> The emission limit is expressed as the average of three (3) runs.

<sup>2</sup> The emission limit is a twelve (12) month rolling total.

<sup>3</sup> The limit for PM<sub>10</sub> emissions is established to correspond to the emission rate used in the dispersion modeling required by the consent decree entered into between the State of Iowa and Grain Processing Corporation [Law No. CVCV016788, Iowa District Court in and for Muscatine County (July 17, 2006)].

<sup>4</sup> The limit for PM<sub>2.5</sub> emissions is established to address the "Finding of Substantial Inadequacy of Implementation Plan; Call for Iowa SIP Revision" for PM<sub>2.5</sub> published in the Federal Register (76 FR 9706) on February 22, 2011.

<sup>5</sup> The emission limit is a six (6) minute average.

<sup>6</sup> SO<sub>2</sub> limit is established to address the nonattainment designation for a portion of Muscatine County published in the Federal Register (78 FR 47191) on August 5, 2013. The nonattainment designation is for the 1-hour SO<sub>2</sub> primary national ambient air quality standard promulgated by EPA in 2010 (75 FR 35519, June 22, 2010).

### 11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	*
Discharge Style	*
Stack Opening (inches)	*
Exhaust Temperature (°F)	*
Exhaust Flowrate (scfm)	*

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

\*There is no stack on this emissions unit.



**12. Compliance Demonstration(s)**

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	NA	NA
PM – State	No	NA	NA
PM <sub>10</sub>	No	NA	NA
PM <sub>2.5</sub>	No	NA	NA
Opacity	No	NA	NA
SO <sub>2</sub>	No	NA	NA
NO <sub>x</sub>	No	NA	NA
VOC	No	NA	NA
CO	No	NA	NA
Pb	No	NA	NA
HAP	No	NA	NA

**If an initial compliance demonstration specified above is testing**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 within sixty (60) days after achieving maximum production rate and no later than one hundred eighty (180) days after the initial startup date of the proposed equipment.

**If subsequent testing is specified above**, the owner or the owner’s authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner’s authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM <sub>10</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
PM <sub>2.5</sub>	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO <sub>2</sub>	1 hour	40 CFR 60, Appendix A, Method 6C
NO <sub>x</sub>	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18 or 40 CFR 63, Appendix A, Method 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

## **12. Compliance Demonstration(s) (Continued)**

Per 567 IAC 25.1(7)"a", at the Department's request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

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## **13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability**

- A. This emission unit is not subject to the New Source Performance Standards (NSPS) as there are no subparts for this source category.
- B. This emission unit is not subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) as there are no subparts for this source category at this time.

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## **14. Operating Limits**

Operating limits for this emission unit shall be:

- A. The amount of wet feed loaded out shall not exceed 50,000 tons in any rolling 12-month period.

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## **15. Operating Condition Monitoring and Recordkeeping**

<sup>+</sup> Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. The owner or operator shall maintain the following monthly records for the Wet Feed Loadout (EU1276.0):
  - i. The amount of wet feed loaded out, in tons; and
  - ii. The rolling 12-month total of the amount of wet feed loaded out, in tons.

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## **16. Continuous Emission Monitoring**

Continuous emission monitoring is not required by this permit at this time.

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Permit No.	Proj. No.	Description	Date	Stack Testing

**18. Description of Terms and Acronyms**

*The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.*

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
PM <sub>2.5</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM <sub>10</sub>	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm <sub>v</sub>	parts per million by volume
ppm <sub>w</sub>	parts per million by weight
RACT	Reasonably Available Control Technology
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

**END OF PERMIT**