

# Iowa Department of Natural Resources

## Draft Title V Operating Permit Fact Sheet

This document has been prepared to fulfill the public participation requirements of 40 CFR Part 70 and 567 Iowa Administrative Code (IAC) 24.107(6). 40 CFR Part 70 contains operating permit regulations pursuant to Title V of the Clean Air Act.

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The Iowa Department of Natural Resources (DNR) finds that:

1. Iowa State University, located at 616 Beach Road, Ames, IA 50011 has applied to renew their Title V Operating Permit. The designated responsible official of this facility is Sean Reeder.
2. Iowa State University is a State University. This facility consists of 165 emission units with potential emissions of:

<b>Pollutant</b>	<b>Abbreviation</b>	<b>Potential Emissions (Tons per Year)</b>
Particulate Matter ( $\leq 2.5 \mu\text{m}$ )	PM <sub>2.5</sub>	91.54
Particulate Matter ( $\leq 10 \mu\text{m}$ )	PM <sub>10</sub>	101.52
Particulate Matter	PM	111.46
Sulfur Dioxide	SO <sub>2</sub>	146.01
Nitrogen Oxides	NO <sub>x</sub>	616.34
Volatile Organic Compounds	VOC	143.95
Carbon Monoxide	CO	523.93
Lead	Lead	0.22
Hazardous Air Pollutants <sup>(1)</sup>	HAP	140.27

<sup>(1)</sup> May include the following: See application.

3. Iowa State University submitted a Title V Operating Permit renewal application on October 19, 2023 and any additional information describing the facility on February 25, 2025. Based on the information provided in these documents, DNR has made an initial determination that the facility meets all the applicable criteria for the issuance of an operating permit specified in 567 IAC 24.107.
4. DNR has complied with the procedures set forth in 567 IAC 24.107, including those regarding public notice, opportunity for public hearing, and notification of EPA and surrounding state and local air pollution programs.

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DNR procedures for reaching a final decision on the draft permit:

1. The public comment period for the draft permit will run from February 27, 2025 through March 29, 2025. During the public comment period, anyone may submit written comments on the permit. Mail signed comments to Zane Peters at the DNR address shown below. The beginning date of this public comment period also serves as the beginning of the U.S. Environmental Protection Agency's (EPA) 45-day review period, provided the EPA does not seek a separate review period.
2. Written requests for a public hearing concerning the permit may also be submitted during the comment period. Any hearing request must state the person's interest in the subject matter, and the nature of the issues proposed to be raised at the hearing. DNR will hold a public hearing upon finding, on the basis of requests, a significant degree of relevant public interest in a draft permit. Mail hearing requests to Zane Peters at the DNR address shown below.
3. DNR will keep a record of the issues raised during the public participation process, and will prepare written responses to all comments received. The comments and responses will be compiled into a responsiveness summary document. After the close of the public comment period, DNR will make a final decision on the renewal application. The responsiveness summary and the final permit will be available to the public upon request.

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DNR concludes that:

1. DNR has authority under 455B.133 Code of Iowa to promulgate rules contained in 567 IAC Chapters 21-33, including, but not limited to, rules containing emission limits, providing for compliance schedules, compliance determination methods and issuance of permits.
2. DNR has the authority to issue operating permits for air contaminant sources and to include conditions in such permits under 455B.134 Code of Iowa.
3. The emission limits included in this permit are authorized by 455B.133 Code of Iowa and 567 IAC Chapters 21-33.
4. DNR is required to comply with 567 IAC Chapter 24 in conjunction with issuing a Title V Operating Permit.
5. The issuance of this permit does not preclude the DNR from pursuing enforcement action for any violation.

## Title V Permit Review Notes

Applicant:	<b>Iowa State University</b>
SIC Code:	8221 (College, University, Pro School)
City:	Ames
County:	Story (F.O. #5)
EIQ#:	92-6867
Facility#:	85-01-007
Permit #:	04-TV-014R4
Reviewer:	Zane Peters
Date:	2/26/2025

### **Facility Identification**

Facility Name:	Iowa State University
Facility Location:	616 Beach Road, Ames, IA 50011
Responsible Official:	Dr. Sean Reeder
Phone:	(515) 294-8286

### **Background:**

This facility consists of 154 significant emission points. Upon request by Iowa State University (ISU), both of the Title V permits for the facility's 2 EIQ numbers (92-6867 Main Campus; 92-2776 Power Plant) have been issued as one singular Title V permit. This is the fourth renewal of 04-TV-014R3. Renewal applications were received on 10/19/23 (92-6867 & 92-2776) and supplemental information on the Power Plant (92-2776) was received 10/27/23. A modification application was received on 2/25/25 (92-6867) that updated the Responsible Official and Permit Contact, as well as add new generators.

### **Regulatory Status Main Campus (92-6867):**

- Title V Major Source Status by Pollutant

Pollutant	Major for Title V?
PM <sub>10</sub>	<input type="checkbox"/>
SO <sub>2</sub>	<input checked="" type="checkbox"/>
NO <sub>x</sub>	<input checked="" type="checkbox"/>
VOC	<input checked="" type="checkbox"/>
CO	<input checked="" type="checkbox"/>
Lead	<input type="checkbox"/>
Individual HAP	<input type="checkbox"/>
Total HAPs <sup>(1)</sup>	<input checked="" type="checkbox"/>

<sup>(1)</sup> HAPs may include acetaldehyde, acrolein, arsenic, benzene, benzyl chloride, beryllium, bromomethane, carbonyl sulfide, chromium, cobalt, cyanide, ethylbenzene, formaldehyde, hexane, hydrochloric acid, hydrogen fluoride, isophorone, manganese, methyl chloride, methyl hydrazine, nickel compounds, propionaldehyde, selenium, and toluene.

**Regulatory Status Power Plant (92-2776):**

- Title V Major Source Status by Pollutant

<b>Pollutant</b>	<b>Major for Title V?</b>
PM <sub>10</sub>	<input type="checkbox"/>
SO <sub>2</sub>	<input type="checkbox"/>
NO <sub>x</sub>	<input checked="" type="checkbox"/>
VOC	<input type="checkbox"/>
CO	<input checked="" type="checkbox"/>
Lead	<input type="checkbox"/>
Individual HAP	<input type="checkbox"/>
Total HAPs <sup>(1)</sup>	<input type="checkbox"/>

<sup>(1)</sup> HAPs may include acetaldehyde, acrolein, arsenic, benzene, benzyl chloride, beryllium, bromomethane, carbonyl sulfide, chromium, cobalt, cyanide, ethylbenzene, formaldehyde, hexane, hydrochloric acid, hydrogen fluoride, isophorone, manganese, methyl chloride, methyl hydrazine, nickel compounds, propionaldehyde, selenium, and toluene.

**Compliance Status:**

The facility is in compliance at the time of the permit issuance. There are no known compliance issues.

**Program Applicability:**

- PSD: Yes, a major facility for PSD purpose.
- Part 61 NESHAP: No applicable subparts at this time.
- NSPS: Yes, the facility is subject to the following NSPS subparts.
  - Dc, Db, Ce, IIII, and JJJJ
- Part 63 NESHAP: Yes, the facility is subject to the following NESHAP subparts
  - ZZZZ, and DDDDD
- Acid Rain: No.
- Stratospheric Ozone Protection: Yes.
- Prevention of Accidental Releases: NO

**Changes Since the Last Issuance:**

General Changes

- Relevant permitting numbers and dates updated
- Permit Contact updated
- Supervisor of Air Operating Permits Section updated
- Insignificant Activities updated
- General Conditions updated
- Appendix B added to reference Executive Order 10 Rules Crosswalk
- Certain IAC Chapter 22 rule citations updated to Chapter 24 in accordance with EO10

### Emission Point Specific Changes – Main Campus

- EP-244 – REMOVED from the permit in accordance with the facility’s construction permit rescission request
- EP-800 - New emission point added in accordance with DNR Construction Permit 21-A-234 (pp. 41-46)
- EP-759 – New emission point added in accordance with DNR Construction Permit 24-A-019 (pp. 77-79)
- EP-760 – New emission point added in accordance with DNR Construction Permit 21-A-112-S1 (pp. 80-82)
- EP-761 – New emission point added in accordance with DNR Construction Permit 21-A-113-S1 (pp. 83-85)
- EP-762, EP-763, EP-764 – New emission points added in accordance with DNR Construction Permits 21-A-114-S1, 21-A-115-S1, 21-A-116-S1 (pp. 86-88)
- EP-765 – New emission point added in accordance with DNR Construction Permit 21-A-117-S1 (pp. 89-91)
- EP-766, EP-767 – New emission points added in accordance with DNR Construction Permits 21-A-117-S1, 21-A-118-S1 (pp. 92-94)
- EP-768 - New emission point added in accordance with DNR Construction Permit 21-A-120-S1 (pp. 95-97)
- EP-801 - New emission point added in accordance with DNR Construction Permit 21-A-235-S1 (pp. 98-102)
- EP-802, EP-803 – New emission points added in accordance with DNR Construction Permits 21-A-236-S1, 21-A-237-S1 (pp. 103-105)
- EPs “Existing Compression Ignition Engines < 400 BHP” – ZZZZ NESHAP language updated in accordance with the August 30, 2024, Federal Register publication documenting the update to the Operation and Maintenance Requirements 40 CFR 63.6602, 63.6625, 63.6640 and Tables 2c and 6 to Subpart ZZZZ (pp. 106)
- EP-825 added to the permit as a construction permitting exempt New Compression Ignition Engines < 400 BHP (pp. 110)
- EP-271, EP-374, EP-410, EP-433 – Emission points removed from the permit (pp. 118)
- EP-826 added to the permit as a construction permitting exempt New Spark Ignition Emergency Engine < 400 BHP (pp. 118)
- EPs “Existing 4-Stroke Rich Burn Spark Ignition < 400 BHP” – ZZZZ NESHAP language updated in accordance with the August 30, 2024, Federal Register publication documenting the update to the Operation and Maintenance Requirements 40 CFR 63.6602, 63.6625, 63.6640 and Tables 2c and 6 to Subpart ZZZZ (pp. 119)
- EP-536, EP-702 - Emission points removed from the permit (pp. 121)
- EP-598, EP-599 - Emission points removed from the permit (pp. 124)
- EP-620, EP-733, EP-734, EP-739, EP-740, EP-775, EP-804, EP-805, EP-806, EP-807, EP-809, EP-810, EP-811, EP-812, EP-820, EP-821, EP-822 – Emission points added to the permit as construction permitting exempt boilers (pp. 122-124)

### Emission Point Specific Changes – Power Plant

- EP-1, EP-2, EP-3, EP-4, EP-5, EP-20, EP-21, EP-22, EP-40, EP-90, EP-101 – All coal handling emission points removed from the permit due to the power plant boiler switching to natural gas, all related construction permits have been rescinded
- EP-S – Boilers have now been changed over to burn only natural gas. Emission limits, operating requirements, monitoring, recordkeeping, and stack characteristics have been updated in accordance with DNR Construction Permit 07-A-923-P6 (pp. 132-136)

### Periodic Monitoring

The monitoring requirements are evaluated for all emission points and units based on Department's Periodic Monitoring Guidance with considerations given to the past compliance demonstrations, compliance margin, and the likelihood of exceeding emission limits.

EP-200 is an incinerator that uses an afterburner (CE-200) to control emissions. The previous requirement for a Facility Maintained Operation & Maintenance Plan will be upheld.

EP-220 is a paint spray booth with fabric filters (CE-220) to control emissions. Due to the Department's policy toward spraying operations, an Agency Approved Operation & Maintenance Plan will be required. Details of the plan can be found in the body of the permit.

EP-244 is a metal atomizer that uses cyclone and water filters (CE-244a, CE-244b and CE-244c) to control emissions. The previous requirement for a Facility Maintained Operation & Maintenance Plan will be upheld.

EP-761 is a hammermill with a baghouse (CE761) to control emissions. Due to the Department's commitment to control fugitive dust emissions, a Facility Maintained Operation & Maintenance Plan will be required.

EP-765 is a grain mixer/hopper with a baghouse (CE765) to control emissions. Due to the Department's commitment to control fugitive dust emissions, a Facility Maintained Operation & Maintenance Plan will be required.

EP-S – According to the emission calculations, these emission points qualify for CAM plans. However, they are Subject to NSPS Subpart Db. The Subpart Db operating/monitoring requirements contain CAM equivalent monitoring, so a formal CAM plan is not needed at this time.

### Stack Testing

#### EP-801

Pollutant – Opacity  
Stack Test to be Completed by (date) - <sup>(1)</sup>

Test Method - 40 CFR 60, Appendix A, Method 9  
Authority for Requirement: DNR Construction Permit 21-A-235-S1

Pollutant – Particulate Matter (PM)  
Stack Test to be Completed by (date) - <sup>(1)</sup>  
Test Method - 40 CFR 60, Appendix A, Method 5  
40 CFR 51 Appendix M Method 202  
Authority for Requirement: DNR Construction Permit 21-A-235-S1

Pollutant – Particulate Matter (PM<sub>10</sub>)  
Stack Test to be Completed by (date) - <sup>(1)</sup>  
Test Method - 40 CFR 51, Appendix M, 201A with 202  
Authority for Requirement: DNR Construction Permit 21-A-235-S1

Pollutant – Particulate Matter (PM<sub>2.5</sub>)  
Stack Test to be Completed by (date) - <sup>(1)</sup>  
Test Method - 40 CFR 51, Appendix M, 201A with 202  
Authority for Requirement: DNR Construction Permit 21-A-235-S1

Pollutant – Nitrogen Oxides (NO<sub>x</sub>)  
Stack Test to be Completed by (date) - <sup>(1)</sup>  
Test Method - 40 CFR 60, Appendix A, Method 7E  
Authority for Requirement: DNR Construction Permit 21-A-235-S1

Pollutant – Carbon Monoxide (CO)  
Stack Test to be Completed by (date) - <sup>(1)</sup>  
Test Method - 40 CFR 60, Appendix A, Method 10  
Authority for Requirement: DNR Construction Permit 21-A-235-S1

<sup>(1)</sup> Within 60 days after achieving the maximum production rate but not later than 180 days after the initial startup date of the proposed equipment for the addition of new equipment or the physical modification of existing equipment or control equipment.

**Other Notes (Continued on Next Page):**

EU Number	Emission Unit Description	Comment
EU-200	Vet Med Incinerator	This unit is the source type subject to Emission Guidelines and Compliance Times, Ce. However, the facility meets an exemption as described in 60.32e(c) and is allowed to meet reduced requirements.
EU-210	Wallace-Wilson Halls Boiler #1	These units were constructed prior to the NSPS Dc applicability date of June 9, 1989. Therefore, these units are not subject to NSPS Dc, but they are subject to 40 CFR Part 63 Subpart DDDDD.
EU-211	Wallace-Wilson Halls Boiler #2	
EU-239	Transportation Services Underground Storage Gas Tank (20,000 gallons)	Construction permit 03-A-1060 states this emission unit is subject to NSPS Part 60 Subpart Kb. However, according to 60.110b(d), this subpart does not apply to storage vessels located at gasoline service stations. This source meets the definition of a gasoline service station; it is an underground storage tank and a non-commercial gasoline tank used to fill ISU and State of Iowa fleet vehicles. This emission unit is also not subject to 40 CFR Part 63 Subpart CCCCC for Gasoline Dispensing Facilities as the subpart applies to area sources and this unit is located at a major source of HAP.
EU-508	Vet Med 2 Emergency Generator	Construction permit 07-A-1347-S2 states this unit is subject to NSPS Part 60 Subpart IIII and includes limits from the subpart. However, there is a material mistake in the construction permit which states the limit for NOx + NMHC is 9.2 g/KW-hr, and does not give a limit for HC. The NSPS IIII limits that apply to this unit are NOx is 9.2 g/KW-hr, 1.3 g/KW-hr HC, 11.4 g/KW-hr CO, and 0.54 g/KW-hr PM. The NSPS limits that apply are in the Title V permit. The facility may want to request the construction permit be modified.
EU-759 – EU-768	Assorted Grain Processing Equipment	This facility is of the source category for Subpart DD ( <i>Grain Elevators</i> ; 40 CFR §60.300 – §60.304). However, this facility is not subject as it is located at an animal food manufacturer. This facility is of the source category for Subpart DDDDDDD (Area Sources: Prepared Feeds Manufacturing; 40 CFR §63.11619 – §63.11627). However, this facility is not subject as it is currently located at a major source for hazardous air pollutants (HAPs).



EU-802 – EU-803	VDL Cooling Towers	These emission units (EU-802 and EU-803) are of the source category for Subpart Q (National Emission Standards for Hazardous Air Pollutants for Industrial Process Cooling Towers; 40 CFR §63.400 through 40 CFR §63.407) of the National Emission Standards for Hazardous Air Pollutants (NESHAP). However, emission units (EU-802 and EU-803) do not use chromium-based water treatment chemicals, so they have no requirements.
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=====END OF NOTES=====