

# Iowa Department of Natural Resources

## 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. Green Valley Chemical Corporation, located at 1284 North Cherry St., Creston, IA 50801 has applied to renew their Title V Operating Permit. The designated responsible official of this facility is Doug Plambeck.
2. Green Valley Chemical Corporation is a Nitrogenous Fertilizer Manufacturer. This facility consists of 12 emission units with potential emissions of:

Pollutant	Abbreviation	Potential Emissions (Tons per Year)
Particulate Matter ( $\leq 2.5 \mu\text{m}$ )	PM <sub>2.5</sub>	5.31
Particulate Matter ( $\leq 10 \mu\text{m}$ )	PM <sub>10</sub>	5.31
Particulate Matter	PM	5.31
Sulfur Dioxide	SO <sub>2</sub>	0.74
Nitrogen Oxides	NO <sub>x</sub>	146.09
Volatile Organic Compounds	VOC	161.01
Carbon Monoxide	CO	333.86
Lead	Lead	0.00
Hazardous Air Pollutants <sup>(1)</sup>	HAP	3.20

<sup>(1)</sup> May include the following: Methanol, Formaldehyde, and Hexane.

3. Green Valley Chemical Corporation submitted a Title V Operating Permit renewal application on June 24, 2024. 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 March 13, 2025 through April 12, 2025. During the public comment period, anyone may submit written comments on the permit. Mail signed comments to Taylor Dailey 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 Taylor Dailey 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.

Taylor Dailey  
Iowa Department of Natural Resources - Air Quality Bureau  
6200 Park Ave  
Ste #200  
Des Moines, Iowa 50321  
Phone: (515) 725-9539  
E-mail: Taylor.Dailey@dnr.iowa.gov

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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 Modification Application Review Notes

Applicant:	<b>Green Valley Chemical Corporation</b>
SIC Code:	2873 (Nitrogenous Fertilizers)
City:	Creston
County:	Union (FO #4)
EIQ#:	92-2288
Facility#:	88-01-017
Permit #:	99-TV-002R5
Reviewer:	Taylor Dailey
Date:	3/2025

## **Facility Identification**

Facility Name:	Green Valley Chemical Corporation
Facility Location:	1284 North Cherry Street, Creston, IA 50801
Responsible Official:	Doug Plambeck
Phone:	(641) 782-7041

## **Background**

Green Valley Chemical Corporation is a nitrogenous fertilizer production facility (SIC 2873). The facility also has a secondary activity, Industrial Organic Chemical (SIC 2869). The facility produces an average of 100 tons of nitrogenous fertilizer per day.

Nitrogenous fertilizer (anhydrous ammonia) is produced by reacting nitrogen gas and hydrogen gas with steam under pressure. The hydrogen gas is obtained from methane in natural gas, and the source of nitrogen is air. The byproduct of anhydrous ammonia production is carbon dioxide (CO<sub>2</sub>) gas. Modifications were done in 2000 to the CO<sub>2</sub> regenerator to have the CO<sub>2</sub> produced by the unit converted to liquid CO<sub>2</sub> and dry ice by a subsidiary of Green Valley Chemical Corporation.

This is the fifth renewal of the Title V permit for the facility. The facility consists of 11 emission points and 7 insignificant units. The Title V application for Green Valley Chemical Corporation was received June 24, 2024.

**Specific Changes in Renewal 5**

- Permit number was updated to 99-TV-002R5 (pp.1, 4, 5, 8, and footer)
- Permit contact has been updated to Doug Plambeck
- EU-04 description has been changed to Primary Reformer Natural Gas Burner
- EU-05 description has been changed to CO2 Regenerator Stack
- EP-07 language for 40 CFR Part 63 ZZZZ was updated to the current version concerning the maintenance timing.
- EP-13 (EU-15) Cooling Tower has been removed from the permit. There was no construction permit associated with the unit and it meets the definition of an insignificant activity that may be excluded from the Title V application under 567 IAC 24.103(1)"x".
- Updated language and rule changes throughout the permit. Language in Plant Wide Conditions section and Appendix B explain the changes.

**Regulatory Status**

Green Valley Chemical Corporation is a major source for Title V. See Table 1 below for major source by pollutant.

**Table 1  
Title V Major Source 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 checked="" type="checkbox"/>
CO	<input checked="" type="checkbox"/>
Lead	<input type="checkbox"/>
Individual HAP	<input type="checkbox"/>
Total HAP	<input type="checkbox"/>

HAPs include Methanol, Formaldehyde, and Hexane.

**Program Applicability:**

- PSD: YES, this facility is considered a major stationary source and is one of the 28 listed source categories for PSD.
- Part 61 NESHAP: NO
- NSPS: YES. See Table 2 below.
- Part 63 NESHAP: YES. See Table 3 below.

**Table 2  
NSPS Applicability**

<b>EP</b>	<b>Source Description</b>	<b>Permit#</b>	<b>NSPS Subparts</b>
EP-06	Natural Gas Boiler	12-A-369	A, Dc

**Table 3  
Part 63 NESHAP Applicability**

<b>EP</b>	<b>Source Description</b>	<b>Permit#</b>	<b>NESHAP Subparts</b>
EP-07	310 hp Emergency Generator	NA	A, ZZZZ
EP-30	Gasoline Tank (300 gal)	NA	A, CCCCCC

- Acid Rain: NO
- Stratospheric Ozone Protection: YES
- Prevention of Accidental Releases: YES
- CAM: NO

## Construction Permits

The emission units and associated construction permits are listed in Table 4. Reasoning for exemption from construction permitting are listed for each point.

**Table 4**  
**Emission Units and Associated Construction Permits**

<b>Emission Point</b>	<b>Emission Unit</b>	<b>Emission Unit Description</b>	<b>Construction Permit Number</b>	<b>Exemption from Construction Permitting</b>
EP-01	EU-01	Natural Gas Desulfurization Drum A	NA	Grandfathered
	EU-02	Natural Gas Desulfurization Drum B	NA	Grandfathered
EP-02	EU-03	Primary Reformer	NA	Grandfathered
	EU-04	Primary Reformer Natural Gas Burner	NA	Grandfathered
EP-04a	EU-04a	Waste Heat Boiler Mud Drum	NA	Grandfathered
EP-05a	EU-05a	Low Shift Temperature Converter	NA	Grandfathered
EP-06	EU-06	Natural Gas Fire Tube Boiler	12-A-369	NA
EP-07	EU-09	Emergency Generator (310 HP)	NA	Exempt (IAC 24.1(2)"r")
EP-10	EU-10	CO <sub>2</sub> Regenerator Stack	NA	Grandfathered
EP-11	EU-11	Contactator	19-A-559-S1	NA
EP-30	EU-30	Gasoline Storage Tank (300 gal)	NA	Exempt (IAC 24.1(2)"m")
EP-31	EU-31	Cooling Tower	21-A-199	NA
EP-32			21-A-200	

## Compliance Status

The facility appears to be in compliance.

## Periodic Monitoring/CAM

Periodic monitoring requirements were evaluated based on Department's Periodic Monitoring Guidance (PMG). In this renewal CAM and O&M plans are not required. Stack testing is not required either.

**Emission Estimates:**

Potential emissions for the facility are listed in Table 5.

**Table 5  
Potential Emissions**

<b>Pollutant</b>	<b>Potential Emissions (TPY)</b>
PM <sub>2.5</sub>	5.31
PM <sub>10</sub>	5.31
PM	5.31
SO <sub>2</sub>	0.74
NO <sub>x</sub>	146.09
VOC	161.01
CO	333.86
Lead	0.00
Total HAP	3.20