

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.

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

1. Southwest Iowa Renewable Energy, LLC, located at 10868 189th Street, Council Bluffs, IA has applied to renew their Title V Operating Permit. The designated responsible official of this facility is Mike Jerke.
2. Southwest Iowa Renewable Energy is a Fuel Ethanol Manufacturing facility. This facility consists of 34 emission units with potential emissions of:

Pollutant	Abbreviation	Potential Emissions (Tons per Year)
Particulate Matter ($\leq 2.5 \mu\text{m}$)	PM _{2.5}	39.91
Particulate Matter ($\leq 10 \mu\text{m}$)	PM ₁₀	84.17
Particulate Matter	PM	103.56
Sulfur Dioxide	SO ₂	93.87
Nitrogen Oxides	NO _x	115.92
Volatile Organic Compounds	VOC	173.07
Carbon Monoxide	CO	124.87
Lead	Lead	0
Hazardous Air Pollutants ⁽¹⁾	HAP	25.58

⁽¹⁾ May include the following: Acetaldehyde, Acrolein, Methanol, Formaldehyde and Hexane.

3. Southwest Iowa Renewable Energy, LLC submitted a Title V Operating Permit renewal application on May 17, 2024 and any additional information describing the facility on January 15, 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.

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

1. The public comment period for the draft permit will run from February 20, 2025 through March 22, 2025. During the public comment period, anyone may submit written comments on the permit. Mail signed comments to Jason Dowie 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 Jason Dowie 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.

DRAFT TITLE V RENEWAL APPLICATION REVIEW NOTES

Facility Name:	Southwest Iowa Renewable Energy LLC
Facility Location:	10868 189 th Street, Council Bluffs, Iowa 51503
SIC Code:	2869-Industrial Organic Chemicals, Not Elsewhere Classified
City:	Council Bluffs
County:	Pottawattamie
EIQ#:	92-6062
Facility#:	78-01-110
Permit #:	14-TV-014-R2
Reviewer:	Jason Dowie
Date:	January 22, 2025

Background

Southwest Iowa Renewable Energy LLC is a fuel-grade ethanol production facility (SIC 2869). The facility also produces food-grade ethanol. The co-product from the manufacture of ethanol at the facility is DDGS (dried distillers' grains with solubles) which is used for animal feed supplement. This is the second permit renewal for the facility. The facility consists of 26 emission points and 16 insignificant units.

Applicable Rules and Regulations

1. Facility Wide Opacity: No more than 40%. 567--IAC 23.3(2)"d"
2. Facility Wide SO₂: 500 parts per million by volume. 567--IAC 23.3(3)"e"
3. PSD: Yes
4. Part 61 NESHAP: No
5. Part 60 NSPS: Yes – 40 CFR 60 Subpart A, Subpart VVa, Subpart Kb, Subpart IIII, and Subpart Db
6. Part 63 NESHAP: Yes –Subpart ZZZZ
7. Acid Rain: No
8. Stratospheric Ozone Protection: No
9. Prevention of Accidental Releases: Yes

Regulatory Status

Southwest Iowa Renewable Energy LLC is a major source for Title V that is subject to NESHAP rules and NSPS standards.

Potential Emissions

PM _{2.5} tons/yr	PM ₁₀ tons/yr	PM tons/yr	SO ₂ tons/yr	NO _x tons/yr	VOC tons/yr	CO tons/yr	Lead tons/yr	Total HAPs tons/yr
39.91	84.17	103.56	93.87	115.92	173.07	124.87	0.00	25.58

PM_{2.5} PTE value is 17% of PM values, combined, as provided by the facility.

The DDGS loadout (EP-90) is limited to 3,000 hours per rolling 12-month period, rather than 8760 hours per year, used to calculate the EP-S90 (DDGS Loadout) total HAP PTE value.

Title V Major Source by Pollutant

Pollutant	Major for Title V?
PM ₁₀	<input type="checkbox"/>
SO ₂	<input type="checkbox"/>
NO _x	<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	<input type="checkbox"/>

HAPs may include acetaldehyde, formaldehyde, acrolein, methanol, and hexane.

40 CFR 60 Subpart A Requirements

This facility is an affected source and these General Provisions apply to the facility. The affected units are EU-S10, EU-S12A, EU-S12B, EU-22, EU-S40, EU-EMERG, EU-F60, EU-F110, EU-T61, EU-T62, EU-T63, EU-T64, EU-T65 and EU-T66.

Authority for Requirements: 40 CFR 60 Subpart A
567 IAC 23.1(2)

40 CFR 60 Subpart Db Requirements

This facility is subject to Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units. The affected units are EU-S12A and EU-S12B.

Authority for Requirements: 40 CFR 60 Subpart Db
567 IAC 23.1(2) "ccc"

40 CFR 60 Subpart Kb Requirements

This facility is subject to the Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for which Construction, Reconstruction, or Modification Commenced after July 23, 1984. The affected units are EU-T61, EU-T62, EU-T63, EU-T64, EU-T65 and EU-T66.

Authority for Requirements: 40 CFR 60 Subpart Kb
567 IAC 23.1(2) "ddd"

40 CFR 60 Subpart VVa Requirements

This facility is subject to NSPS Subpart VV – Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry. However, the facility has chosen to satisfy the requirements of NSPS subpart VV by complying with the provisions of NSPS subpart VVa – Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for which Construction, Reconstruction, or Modification Commenced After November 7, 2006 ***in accordance with 40 CFR 60.480(e)(2)***.

The affected units are equipment in VOC service and any applicable devices and systems (as defined in 40 CFR 60.481) in the entire facility, which include EU-S10, EU-22, EU-40, EU-F60, EU-F110, EU-T61, EU-T62, EU-T63, EU-T64, EU-T65 and EU-T66. The owner or operator shall comply with the applicable requirements in 40 CFR 60.480a through 60.489, including recordkeeping requirements in 40 CFR 60.486 and reporting requirements in 40 CFR 60.487.

Authority for Requirements: 40 CFR 60 Subpart VVa
567 IAC 23.1(2) "nn"

40 CFR 60 Subpart IIII Requirements

This facility is subject to Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. The affected unit is EU-EMERG.

Authority for Requirements: 40 CFR 60 Subpart IIII
567 IAC 23.1(2) "yyy"

40 CFR 63 Subpart ZZZZ Requirements

This facility is subject to Standards of Performance for Stationary Reciprocating Internal Combustion Engines. The affected unit is EU-EMERG.

Authority for Requirements: 40 CFR 63 Subpart ZZZZ
567 IAC 23.1(4) "cz"

40 CFR 63 Subpart CCCCCC Requirements

This facility is subject to the Standards of Performance for Hazardous Air Pollutants for Gasoline Dispensing Facilities. The affected unit is EU GAS TANK.

Authority for Requirements: 40 CFR 63 Subpart CCCCCC
567 IAC 23.1(4) "ec"

Changes Since Last Issuance

- Permit number was updated to 14-TV-014R2 (pp. 1, 4, 6, 10 & footer)
- Expiration and effective dates were updated
- References to IAC chapter 22 were updated to chapter 24
- Air Operating Permits section supervisor was updated to Marnie Stein (pg. 1)
- Appendix A: Links to Standards was added and reference entry was added to the ToC
- IAC code change crosswalk was added as Appendix B and reference entry was added to the ToC
- Applicable construction permit numbers were updated (throughout)
- Equipment List was updated to include EU-20C – EU-20I, EU-41, and EU-T66 to reflect the respective construction permits

- Plant-Wide Conditions were updated to include reference to the IAC code changes and the crosswalk in Appendix B, updated Particulate Matter text, and updated Fugitive Dust text (pp. 6-8)
- Spelling, punctuation and formatting corrections.
- EP-S10: Operating Requirements and Monitoring Requirements were updated with the most recent construction permit language.
- EP-12A & EP-12B: Emission Limits and Operating Requirements were updated with values and text from updated construction permit
- EP-S20: Emission Unit Description was updated to reflect all equipment indicated on the construction permit; Operating Requirements were updated to include visible emissions text from modified construction permit
- EP-40: Emission Units, Emission Unit Description, and Rated Capacity updated to reflect most recent construction permit. Operating Limits (D) text was updated to reflect modified construction permit. Record Keeping (section A) was updated to reflect the current construction permit, and (section D) was removed as it was duplicative. Exhaust Flow Rate was updated to 15,000 scfm from 10,000 acfm.
- EP-T61 & EP-T62: References to Denatured Ethanol were replaced by 200 Proof Ethanol, EP-T66: Added EP-T66/EU-T66 to Associated Equipment list as 200 Proof Ethanol Tank per construction permit(s). The NSPS Requirements text for emission units EU-T61 – EU-T66 were updated to include Part 60, Subpart VVa. Operating Requirements text was modified to reflect changes to construction permits. Emission Point Characteristics were updated to include stack characteristics of EP-T66.
- EU I20 was removed from the Insignificant Equipment list and moved to the Equipment List as EU Gas Tank (EP GAS) due to the tank being subject to 40 CFR 63 Subpart CCCCCC. Operating Requirements and Monitoring Requirements for EP GAS were added to the body of the permit.
- Corn Oil tanks TF-8905, TF-8906, TF-8907, TF-8908, and TF-2001 were added to the Insignificant Equipment list.
- Reference and link to 40 CFR 63 Subpart CCCCCC was added to Appendix A: Link to Standards.
- General Conditions were updated to the most recent version.