

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. Cargill Inc. – Sioux City, located at 1016 Clark Street, Sioux City, IA has applied to renew their Title V Operating Permit. The designated responsible official of this facility is Christopher Osborn.
2. Cargill Inc. – Sioux City is a Soybean Processing Plant. This facility consists of 53 emission units with potential emissions of:

Pollutant	Abbreviation	Potential Emissions (Tons per Year)
Particulate Matter ($\leq 2.5 \mu\text{m}$)	PM _{2.5}	61.50
Particulate Matter ($\leq 10 \mu\text{m}$)	PM ₁₀	66.54
Particulate Matter	PM	169.78
Sulfur Dioxide	SO ₂	29.76
Nitrogen Oxides	NO _x	94.29
Volatile Organic Compounds	VOC	781.06
Carbon Monoxide	CO	102.02
Lead	Lead	0.00
Hazardous Air Pollutants ⁽¹⁾	HAP	497.88

⁽¹⁾ May include the following: Formaldehyde, Hexane, Toluene.

3. Cargill Inc. – Sioux City submitted a Title V Operating Permit renewal application on August 7, 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.

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

1. The public comment period for the draft permit will run from November 20, 2025 through December 20, 2025. During the public comment period, anyone may submit written comments on the permit. Mail signed comments to Derek Wedemeier 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 Derek Wedemeier 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 Application Review Notes

Applicant:	Cargill Inc. – Sioux City
SIC Code:	2075
City:	Sioux City
County:	Woodbury
EIQ#:	92-0769
Facility#:	97-01-001
Permit #:	99-TV-013R5
Reviewer:	D Wedemeier
Date:	**DATE**

Facility Identification

Facility Name:	Cargill Inc. – Sioux City
Facility Location:	1016 Clark Street, Sioux City, IA 51101
Responsible Official:	Christopher Osborn
Phone:	(712)279-1234

Background:

Cargill Inc. – Sioux City has applied for a renewal of their Title V Operating Permit. The facility is a soybean processing plant. The principal activities are Soybean Oil Processing and Refining (SIC 2075). The secondary activities are Refining Soybean Oil (SIC 2079) and Refining Vegetable Oil (SIC 2076). The facility consists of thirty-one (31) significant emission points and two (2) insignificant emission units.

Title V Applicability

Pollutant	Major for Title V?
PM ₁₀	☐
SO ₂	☐
NO _x	☐
VOC	☒
CO	☒
Lead	☐
Individual HAP	☒
Total HAPs	☒

Program Applicability

- PSD: YES
- Title V: Cargill, Inc – Sioux City (Plant No. 97-01-001) is classified as a "*major stationary source*".
- Part 61 NESHAP: Yes, This facility is subject only to the Subpart M NESHAP for the demolition and renovation of asbestos containing structures identified in 40 CFR 61.145.
- NSPS: Yes
 - 40 CFR 60 Subpart A – Standards of Performance for New Stationary Sources – General Provisions
 - 40 CFR 60 Subpart DD – Standards of Performance for Grain Elevators
 - 40 CFR 60 Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units
 - 40 CFR 60 Subpart Db – Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units
- Major Source of HAPs: Yes
- Part 63 NESHAP: Yes
 - 40 CFR 63 Subpart A – National Emission Standards for Hazardous Air Pollutants for Source Category: General Provisions
 - 40 CFR 63 Subpart GGGG – National Emission Standards for Hazardous Air Pollutants: Solvent Extraction for Vegetable Oil Production
 - 40 CFR 63 Subpart DDDDD – National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Industrial Boilers and Process Heaters
- Acid Rain: No
- Stratospheric Ozone Protection: Yes
- Prevention of Accidental Releases: No
- Section 112(j) of the Clean Air Act (MACT Hammer) Compliance Plan: Yes

Emission Estimations

The potential emissions calculations were based off of construction permit limits, AP-42 emission factors, stack test data, mass balance and engineering estimates provided by the facility. The 500ppmv allowable SO₂ SIP limit overestimates the potential emissions. The AP-42 emission factors for SO₂, if available, were used instead and provide a more realistic potential value when compared to the previous year's emissions inventory.

PTE Emission Values

PM	PM ₁₀	PM _{2.5}	SO ₂	NO _x	VOC	CO	Lead	Total HAPs
Potential Emissions								
169.34	66.32	61.37	29.76	94.29	781.06	102.02	0.00	497.88
Actual Emissions 2024								
25.89	25.89	19.96	0.37	31.74	626.05	52.10	0.00	398.18

Changes Made To the Title V Permit Since Previous Modification Was Issued

Construction Permit Rescinded

Emission Point	Emission Point Description	Permit Number	Rescission Date
31	Soybean CoProduct System Aspiration	02-A-554-S1	4/26/2018
7	Meal Conveying – Finished Meal Leg	95-A-328-P6	Submitted 10/13/2025

New/Modified Construction Permit

Emission Point	Emission Point Description	Permit Number
38	Dehulling Process	18-A-167

General Comments

- EU SS #1 and EU SS#2 were removed from Insignificant Activities list.
- New Responsible Official and Permit Contact
- Updated General Conditions
- Removed EP 07 & 31 from Title V draft.
- Added EP 38 to Title V draft

Cargill incorporated entered into a Consent Decree with US EPA, Iowa DNR and other participating entities. This decree placed emission limits and other requirements on equipment located at the Sioux City facility. All of the applicable emission limits have been incorporated into construction permits for the covered equipment. These construction permits do cite the Consent Decree as the authority for setting the limits. The requirements set forth by the Consent Decree have been fulfilled so it is no longer in effect, and therefore is not referenced by the Title V permit.

EP-01, 01A, 02, 07, 08, 17, 26, 28 – This facility (Plant Number 97-01-001) is subject to NESHAP Subpart GGGG (*National Emission Standards for Hazardous Air Pollutants: Solvent Extraction for Vegetable Oil Production*; 40 CFR §63.2830 – §63.2872). However, there are no requirements for these emission units because these units do not emit any hazardous air pollutants.

Emission Point Specific Comments

EP-01: 95-A-323-P13

This equipment is subject to NSPS DD – Standards of Performance for Grain Elevators. Weekly opacity monitoring is required. Periodic monitoring guidance suggests one (1) stack test for PM and PM10 along with a Facility O&M. This emission point was last tested for PM and PM10 in Dec 2013 with results well below the emission limit. Average emission rates were less than 20% of the emission limit for both pollutants. Testing will not be required during this renewal will not be required. Precontrol emission do not exceed the major source threshold based on these results. Therefore CAM does not apply.

This emission point was covered under construction project 19-057 which requires 10 years of particulate emissions calculation and monitoring. This project was issued in 2019. The facility is required to maintain these records for 10 years after the completion of this project. This requirement also applies to EP-02, EP-07, and EP-08.

EP-01A: 13-A-188-P

This facility (Plant Number 97-01-001) is of the source category for Subpart DD (*Standards of Performance for Grain Elevators*; 40 CFR §60.300 – 40 CFR §60.304) of the New Source Performance Standards (NSPS). However, this emission unit is not an "affected facility" per the subpart so there are no NSPS

requirements for this emission unit. Weekly opacity monitoring is required. Periodic monitoring guidance recommends a Facility O&M plan for PM & PM₁₀ control equipment. This will be required. CAM does not apply because precontrol emission do not exceed the major source threshold.

EP-02: 95-A-324-P11

No changes have been made to this point. EP-02 is subject to NSPS DD. Weekly opacity monitoring is required for this emission point. Cargill has completed 6 stack tests on this source with results, including the 95% confidence intervals, well below the emission limits. An Agency O&M Plan has been required for this source in place of testing. The facility provided CAM spreadsheet indicates precontrol emission for PM do not exceed major source threshold on a per unit basis when utilizing stack test data from 12/13/2005. Based on this information CAM does not apply.

This emission point was covered under construction project 18-101 which requires 10 years of particulate emissions calculation and monitoring. This project was issued in 2018. The facility is required to maintain these records for 10 years after the completion of this project. This requirement also applies to EP-06, EP-08, EP-13, EP-13A, EP-27, and EP-38.

EP-04: 95-A-325-S5

No changes have been made to this point since the previous renewal. Weekly opacity monitoring is required for EP-04. A Facility O&M Plan is required for this emission point. The facility provided CAM spreadsheet indicates precontrol emission for PM do not exceed major source threshold when utilizing stack test data from 1/7/2002. Based on this information CAM does not apply. Periodic monitoring guidance recommends testing for PM when using emission limits. Testing will not be required during this renewal. This unit and similar units have a history of demonstrating compliance of the emission limits with passing stack tests. Cargill provided precontrol PTE calculation using historic stack test results including 95% confidence intervals to justify that precontrol PTE does not exceed the major source threshold and does not warrant testing.

EP-05: 95-A-326-S4

No changes. Weekly opacity monitoring is required along with a Facility O&M Plan. Periodic monitoring guidance recommends testing for PM when using emission limits. Testing will not be required during this renewal. This unit and similar units have a history of demonstrating compliance of the emission limits with passing stack tests. Cargill provided precontrol PTE calculation using historic stack test results including 95% confidence intervals to justify that precontrol PTE does not exceed the major source threshold and does not warrant testing. Precontrol emission totals do not exceed major source threshold on a per unit basis. CAM will not be required during this renewal.

EP-05A: 98-A-400-S2

No changes. Weekly opacity monitoring is required along with a Facility O&M Plan. Precontrol emission totals do not exceed major source threshold so testing and CAM will not be required during this renewal.

EP-06: 95-A-327-P6

No changes. CAM does not apply as precontrol emission do not exceed the major source threshold on a per unit basis. Periodic monitoring guidance recommends one (1) stack test for PM. Testing will be required within 2 years of permit issuance.

EP-08

No changes. CAM does not apply as precontrol emissions do not exceed the major source threshold on a per unit basis. Periodic monitoring guidance recommends testing for PM when using emission limits. Testing will not be required during this renewal. This unit and similar units have a history of demonstrating compliance of the emission limits with passing stack tests. Cargill provided precontrol PTE calculation

using historic stack test results including 95% confidence intervals to justify that precontrol PTE does not exceed the major source threshold and does not warrant testing.

EP-09 & EP-10: Clay storage and handling

These two emission point are subject to the PM emission limit of 0.1 gr/dscf. When using this value and back calculating for precontrol emissions, totals exceed the major source threshold. Fabric filters are routinely capable of achieving 0.02gr/dscf or better. This value was used when determining precontrol emission totals. Based on these values, precontrol emission for PM do not exceed the major source threshold. Testing and CAM are not required. A Facility O&M and weekly opacity monitoring are in place for EP-09 and EP-10.

EP-11: 95A-332-S5

No changes. Weekly opacity monitoring. PMG suggests stack testing for PM. Testing will not be required during this renewal. Cargill has completed 2 stack tests on this source with results, including the 95% confidence intervals, well below the emission limits. An Agency O&M Plan has been required for this source in place of testing. The facility provided CAM spreadsheet indicates precontrol emission for PM do not exceed major source threshold on a per unit basis when utilizing stack test data from 1999. Based on this information CAM does not apply.

EP-13: 95-A-334-P8

No changes. Weekly opacity monitoring. A facility O&M plan is required. No testing will be required during this renewal. CAM does not apply. Precontrol emissions totals do not exceed the major source threshold. Operational condition H of the construction permit requires annual emission calculation for a period of 10 years after the construction permit was issued. Calculations are required to continue through 2028 and retention of those records is required for an additional 10 years.

EP-13A & EP-15: No changes.

EP-16: 95-A-337-P9

Emission point is subject to 40 CFR 63 Subpart GGGG. No changes.

EP-17: 86-A-036-S6

No changes.

EP-20: 98-A-402-S3

No changes. A facility O&M plan and weekly opacity monitoring are required. CAM does not apply because precontrol emission totals do not exceed the major source threshold.

EP-21 & EP-22

No changes. Weekly Opacity monitoring is required.

EP-23 & EP-23.2:

Opacity monitoring was added to EP-23.2. Opacity monitoring is only required when burning liquid fuels

EP-25: 94-A-507

No changes. A facility O&M plan and weekly opacity monitoring are required. CAM does not apply because precontrol emission totals do not exceed the major source threshold.

EP-26: 96-A-1253-P7

No changes. A facility O&M plan and weekly opacity monitoring are required. Periodic monitoring guidance recommends testing for PM when using emission limits. Testing will not be required during this

renewal. This unit and similar units have a history of demonstrating compliance of the emission limits with passing stack tests. Cargill provided precontrol PTE calculation using historic stack test results including 95% confidence intervals to justify that precontrol PTE does not exceed the major source threshold and does not warrant testing. The facility-provided CAM spreadsheet indicates precontrol emission for PM do not exceed major source threshold on a per unit basis when utilizing stack test data from 1999. CAM does not apply.

EP-27 & EP-28:

No changes. A facility O&M plan is required for EP-28.

EP-29: 99-A-667

No changes. This unit is subject to NSPS Dc and NESHAP DDDDD. This unit is restricted to natural gas fuel only. The facility is required to record and maintain fuel usage.

EP-30: 02-A-282-S1

This emission point is subject to the PM emission limit of 0.1 gr/dscf. When using this value and back calculating for precontrol emissions, totals exceed the major source threshold. Fabric filters are routinely capable of achieving 0.02gr/dscf or better. This value was used when determining precontrol emission totals. Based on these values, precontrol emission for PM do not exceed the major source threshold. Testing and CAM are not required. A Facility O&M and weekly opacity monitoring are in place.

EP-32: No changes.

EP-33: 03-A-028-S1

No changes. This emissions unit is not subject to any NESHAP at this time. 40 CFR 63 Subpart GGGG (Solvent Extraction for Vegetable Oil Production) does not apply to the refinery operations. The modification allowed by construction permit 03-A-028-S1 is not subject to the requirements of 112(g) (40 CFR, §63.40 to §63.44) because the modification did not consist of a new process or production unit as defined in § 63.41.

EP-38: 18-A-167

Initial stack testing for PM, PM₁₀, and PM_{2.5} was completed on 12/04/2019. Test results were passing with PM_{2.5} test averages approximately 41% of the emission limit. PM and PM₁₀ results were approximately 28% of the emission limit. Based on these results, particulate matter testing will not be required during this renewal. EP-38 requires a CAM plan.

Monitoring and Testing Summary

Emission Point	Construction Permit	Control Equipment	Type of O&M Plan	Stack Test or CEMs	NESHAP	NSPS	Opacity Monitoring
EP-01	95-A-323-P13	CE-01: Cartridge Filter	Facility	-	-	DD	Weekly
EP-01A	13-A-188-P	CE-01A: Bag Filter	Facility	-	-	-	Weekly
EP-02	95-A-324-P11	CE-02: Baghouse	Agency	-	-	DD	Weekly
EP-04	95-A-325-S5	CE-04: Bag Filter	Facility	-	-	-	Weekly
EP-05	95-A-326-S4	CE-5: 4x Cyclones	Facility	-	-	-	Weekly
EP-05A	98-A-400-S2	CE-05A: Cyclone	Facility	-	-	-	Weekly
EP-06	95-A-327-P6	CE-06: Baghouse	Facility	-	-	-	Weekly
EP-08	95-A-329-P7	CE-08: Baghouse	Facility	-	-	-	Weekly
EP-09	95-A-330	CE-09: Fabric Filter	Facility	-	-	-	Weekly
EP-10	95-A-331	CE-10: Fabric Filter	Facility	-	-	-	Weekly
EP-11	95-A-332-S5	CE-11: Bag Filter	Agency	-	-	DD	Weekly
EP-13	95-A-334-P8	CE-13.01: Cyclone	Facility	-	-	-	Weekly
EP-13A	98-A-401-P4	CE-13A: Cyclone	Facility	-	-	-	Weekly
EP-15	95-A-336-S4	CE-15: Bag Filter	-	-	-	-	Weekly
EP-16	95-A-337-P9	CE-16: Mineral Oil Absorption	-	-	GGGG	-	-
EP-17	86-A-036-S6	-	-	-	DDDDD	Dc	-
EP-20	98-A-402-S3	CE-20: Bag Filter	Facility	-	-	-	Weekly
EP-21	95-A-340-S4	-	-	-	-	DD	Weekly
EP-22	98-A-403-S3	-	-	-	-	DD	Weekly
EP-23	95-A-341-S7	-	-	CEMs-NOx	DDDDD	Db	Weekly
EP-23.2	07-A-989-S1	-	-	CEMs-NOx	DDDDD	Db	Weekly
EP-25	94-A-507	CE-25: Baghouse	Facility	-	-	-	Weekly
EP-26	96-A-1253-P7	CE-26: Bag Filter	Facility	-	-	DD	Weekly
EP-27	98-A-404-P4	CE-27.01: Cyclone	-	-	-	-	-
EP-28	98-A-405-P5	CE-28: Cyclone	Facility	-	-	-	-
EP-29	99-A-677	-	-	-	DDDDD	Dc	-
EP-30	02-A-282-S1	CE-30: Bin Vent Filter	Facility	-	-	-	Weekly
EP-32	02-A-555-S1	CE-32: Bag Filter	-	-	-	-	-
EP-33	03-A-028-S1	-	-	-	-	-	-
EP-38	18-A-167	CE-38: Baghouse	CAM	Tested 2019	-	-	-

CAM applicability

Calculation methodology: For emission points where stack tests have been completed, the calculated emission factor based on that stack test was used for the controlled emission rates and IDNR's accepted control efficiencies were used to back-calculate uncontrolled PTE. For emission points where there is no stack testing information, AP-42 emission factors were used to calculate uncontrolled PTE. If only controlled AP-42 emission factors exist, then IDNR's accepted control efficiencies were used to back-calculate an uncontrolled emission factor. This calculated emission factor was then used to calculate uncontrolled PTE.