

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. PLCP, L.P., located at 33371 170th Street, Steamboat Rock, IA has applied to renew their Title V Operating Permit. The designated responsible official of this facility is James Broghammer.
2. PLCP, L.P. is an ethanol production facility. This facility consists of 86 emission units with potential emissions of:

Pollutant	Abbreviation	Potential Emissions (Tons per Year)
Particulate Matter ($\leq 2.5 \mu\text{m}$)	PM _{2.5}	144.37
Particulate Matter ($\leq 10 \mu\text{m}$)	PM ₁₀	151.54
Particulate Matter	PM	154.46
Sulfur Dioxide	SO ₂	91.07
Nitrogen Oxides	NO _x	215.50
Volatile Organic Compounds	VOC	239.34
Carbon Monoxide	CO	241.18
Lead	Lead	0.00
Hazardous Air Pollutants ⁽¹⁾	HAP	24.18

⁽¹⁾ May include the following: Acetaldehyde, Acrolein, Benzene, Ethyl Benzene, Formaldehyde, hexane, Methanol, Propylene Oxide, Toluene, Xylene (Mixed Isomers).

3. PLCP, L.P. submitted a Title V Operating Permit renewal application on 3/18/2024. 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 21, 2024 through December 21, 2024. 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.

DRAFT Title V Renewal 1 Review Notes

Facility Name: Pine Lake Corn Processors
Facility Number: 42-08-001
 EIQ: 92-6962
Permit Number: 19-TV-001R1
 Reviewer: Derek Wedemeier
 Date: **DATE**

Title V application was received March 18, 2024. Facility is subject to Title V as it is a Major stationary source for PM₁₀, VOCs, Nitrogen Oxides, and Carbon Monoxide. Facility is an ethanol production facility and has 36 emission points with the Potential to Emit (annually):

Pollutant	Abbreviation	Potential Emissions (Tons per Year)
Particulate Matter (≤ 2.5 μm)	PM _{2.5}	144.37
Particulate Matter (≤ 10 μm)	PM ₁₀	151.54
Particulate Matter	PM	154.46
Sulfur Dioxide	SO ₂	91.07
Nitrogen Oxides	NO _x	215.50
Volatile Organic Compounds	VOC	239.34
Carbon Monoxide	CO	241.18
Lead	Lead	0.00
Hazardous Air Pollutants ⁽¹⁾	HAP	24.18

⁽¹⁾Single HAP maximum: 7.33tpy Acetaldehyde

Applicable Requirements:

- 40 CFR 60 Subpart A – General Provisions
- 40 CFR 60 Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels: **TK001, TK003-TK006, TK02**
- 40 CFR 60 Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units: **S70, S110, S12**
- 40 CFR 60 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, and on or Before April 25, 2023: **FS005**
- 40 CFR 60 Subpart KKKK - Standards of Performance for Stationary Combustion Turbines: **S140**
- 40 CFR 63 Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines: **S90**

R1 Permit Draft Notes

Table 1 – Rescinded Construction Permits in Renewal 1

Emission Point	Emission Unit	Description	Date Rescinded	Construction Permit
S37	37	Centrifuge #1	10/25/2023	10-A-161-S2
S38	38	Centrifuge #2	10/25/2023	10-A-162-S2

Table 2 Emission Points with Changes in Renewal 1

Emission Point	Emission Unit(s)	Description	Construction Permit
S11	EU13	Hammermill #4	16-A-487-S2
	EU14	Hammermill #5	
	EU114	Hammermill #6	
S12	EU58	Ethanol Loadout- Truck	03-A-628-S7
S20	See Permit	See Permit	03-A-622-S15
S130	See Permit	See Permit	16-A-488-S6
S40	EU40	DDGS Dryer #1	03-A-624-S12
S50	EU68	DDGS Dryer A	16-A-490-S5
	EU69	DDGS Dryer B	
	EU77	Centrifuge #3	
	EU78	Centrifuge #4	
	EU79	Centrifuge #5	
	EU80	Centrifuge #6	
S79 (bypass)	EU77	Centrifuge #3	16-A-493-S3
	EU78	Centrifuge #4	
	EU79	Centrifuge #5	
	EU80	Centrifuge #6	
S41	EU41	DDGS Cooler #1 Baghouse (acetaldehyde)	03-A-625-S9
S42	EU43	DDGS Cooler #2 Baghouse (acetaldehyde)	16-A-491-S4
	EUFS007	Loadout DDGS Handling #2	
S80	FS002	DDGS Loadout	04-A-191-S3
	FS006	Wetcake Production and Storage	
FS003	FS003	Truck Traffic Fugitives	06-A-832-S3
FS004	FS004	Cooling Tower #1 (4 cells)	06-A-829-S3
FS005	FS005	Equipment Leaks	06-A-831-S4
TK001	TK001	200-Proof Tank (77,000 Gallon)	03-A-629-S6
TK003	TK003	200-Proof Tank (540,000 Gallon)	03-A-631-S5
TK004	TK004	200-Proof Tank (77,000 Gallon)	03-A-632-S5
TK005	TK005	200-Proof Tank (540,000 Gallon)	16-A-485-S1
TK006	TK006	200-Proof Tank (77,000 Gallon)	16-A-492-S1
S70	S70	Utility Boiler #1	04-A-192-S6
S110	110	Utility Boiler #2	16-A-483-S2

Updated or new construction permits were issued after the Title V application was submitted for the following emission points: S12, RL-01, S20, S130, S40, S40A, S50, S70, and FS005. These updates have been included in the Title V draft permit. The facility is required to submit a Title V modification in EASY Air to capture these changes in an application prior to permit issuance.

Table 3 – New Emission Points in Renewal 1

Emission Point	Emission Unit	Description	Construction Permit
FS004(A-C)	FS004(A-C)	Cooling Tower - 3 Cells	20-A-104-S1
S120	120	Utility Boiler #3	22-A-290-S1
RL-01	59	Rail Ethanol Loadout	22-A-230-S1
S140	140	Combustion Turbine with Duct Burner	23-A-392
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S40A (bypass)	EU40	DDGS Dryer #1	23-A-393

Table 4 – CAM, Stack Testing Requirements

Emission Point	Emission Unit(s)	Description	Requirement(s)	Reference
S01	01	Truck Dump Pit #1	Agency O&M	
	02	Corn Elevator – Headhouse & Internal Handling		
S111	111	Grain Receiving	Agency O&M	
	112	Corn Elevator		
S03-S05, S112, S113	EU03-EU05, EU112, EU113	Grain Storage Bins #1-5	Agency O & M	
S10	10	Hammermill #1	CAM	
	11	Hammermill #2		
	102	Hammermill #3		
S11	13	Hammermill #4	Agency O&M	
	14	Hammermill #5		
	114	Hammermill #6		
S12	58	Truck Ethanol Loadout Flare	CAM*	
S20	See Permit	See Permit	Stack Testing	03-A-622-S15
S130	See Permit	See Permit	Stack Testing	16-A-488-S6
S40	40	DDGS Dryer #1	CAM*, Stack Testing	03-A-624-S12
S50	69	DDGS Dryer A	CAM*, Stack Testing	16-A-490-S5
	69	DDGS Dryer B		
	77	Centrifuge #3		
	78	Centrifuge #4		
S41	41	DDGS Cooler #1 Baghouse (acetaldehyde)	CAM, Stack Testing	03-A-625-S9 567 IAC 24.108(3)
S42	43	DDGS Cooler #2 Baghouse (acetaldehyde)	CAM, Stack Testing	16-A-491-S4 567 IAC 24.108(3)
	FS007	Loadout DDGS Handling #2		
S80	FS002, FS006	DDGS Loadout & Wetcake Production & Storage	Facility*	
FS003	FS003A, B	Truck Traffic	Silt Sampling	06-A-832-S3
S140	140	Combustion Turbine with Duct Burner	Stack Testing	23-A-392
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*Requirements of the Operating Limits, Reporting and Recordkeeping are equivalent.

EP S01 – The facility provided a CAM plan for the Grain Handling Baghouse. Neither emission unit exceed the major source threshold on a per unit basis, based on facility provided uncontrolled PTE in the PTE spreadsheet in the application. However, additional monitoring is warranted since uncontrolled PTE exceeds the significant source threshold so an abbreviated version of the provided document will be used as an Agency O&M plan.

EP S111 - The grain receiving process (EU111 and EU112) is of the source category for NSPS Subpart DD (*Standards of Performance for Grain Elevators*). However, this facility is **not** subject because the total storage capacity is less than 2.5 million U.S. bushels. Similar to EP S01, these units are not subject to CAM but a plan was provided. This plan has been abbreviated and included as an Agency O&M plan.

EP S03, S04, S05 - Periodic Monitoring requires a facility O&M plan (CE03, CE04, CE05). We are waiving the stack test (PM) at this time because the low exhaust flow rate at these emission points. As a result an Agency O&M plan has been put in place for these units. These bins are limited to operating between 7am and 7pm.

These Emission Points are of the source category for NSPS Subpart DD (*Standards of Performance for Grain Elevators*). However, this facility is **not** subject because the total storage capacity is less than 2.5 million U.S. bushels.

EP S112 and S113 - These Emission Points are of the source category for NSPS Subpart DD (*Standards of Performance for Grain Elevators*). However, this facility is **not** subject because the total storage capacity is less than 2.5 million U.S. bushels. These bins are limited to operating between 7am and 7pm.

EP S10 and S11 – The construction permits for these emission points were modified in 2023 to change the exhaust flow rate and maximum rated capacity due to a rejected PM stack test. No additional stack testing is required. A CAM plan for these units was included in the application and can be found in Appendix D of the permit for CE-10. Uncontrolled PTE does not exceed the major source threshold for CE-11 based on the facility provided PTE spreadsheet. The provided CAM plan for CE-11 has been abbreviated and included as an Agency O&M plan.

EP S12 - Periodic Monitoring requires a facility O&M plan (VOCs and HAPs). This is a flare. The permit contains operating and reporting and recordkeeping requirements for the flare; requiring facility O&M would be redundant. Facility O&M is **not** required at this time. CAM equivalent requirements are listed in the construction permit. No additional CAM plan is required.

EP S20 and S130- EP S130 was formerly known as EP S30 and was renamed in project 22-066. Periodic Monitoring requires an O&M plan but the Construction Permit Operating Limits and Associated Monitoring fulfills the requirements. Construction Permits require stack testing annually for VOC and HAPs. A CAM plan was provided in the application however these emission point are not subject to CAM because precontrol emission do not exceed the major threshold on a per unit basis.

EP S40 and S50 and Bypasses- Construction Permits require stack testing every 36 months for NO_x, VOC, CO and HAP. PM and PM₁₀ stack testing was completed in 2021 for both S40 and S50 and passed. No additional PM stack testing will be required for these units during this renewal.

The operating requirements of the construction permit are CAM equivalent. No additional CAM plan is required.

EP S41 and S42- Construction Permits require stack testing every 36 months for VOC and HAP. Periodic monitoring guidance suggests PMPM/10 stack testing for each emission point. One (1) stack test will be required for each emission point. A CAM plan is located in Appendix D of the permit.

S70, S110, and S120 – Subject to 40 CFR 60 Subpart A (General Provisions) and Dc (Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units. These units were grouped together in a CAP issued in Oct. 2023 and have been grouped in the Title V permit as well. The facility shall not operation the boilers; S70, S110, S120, and combustion turbine, S140, simultaneously during normal conditions. Worst case scenario of operation is reflected in PTE totals.

EP S90 – Fire Pump Engine- This emission unit is of the source category for Subpart IIII (Standards of Performance for Stationary Compression Ignition Internal Combustion Engines; 40 CFR §60.4200 – §60.4219). Per 40 CFR §60.4200(2), non-certified fire pump engines must be manufactured after April 1, 2006 and certified fire pump engines must be manufactured after July 1, 2006. Therefore, this engine is not subject to this subpart (Construction Permit 04-A-1100-S3). Updated form for Engine information received 4/5/19. Engine Model year is November 2004, ordered in 2005 and not certified. NSPS Subpart IIII does not apply. 40 CFR 63 Subpart ZZZZ applies. Emission unit is also subject to 40 CFR 63 Subpart A (General Provisions). This engine is limited to 500 hours of operation per rolling 12-month period. Operating conditions C, D & E have been changed from “annually” to “within 1 year + 30days” to match updates in NESHAP ZZZZ.

EP S80 – DDGS Building #1 Fugitives. This emission point vents inside the DDGS Storage building. Periodic monitoring guidance suggests a Facility O&M plan. The operating conditions meet the requirements of a Facility O&M. This emission point is not subject to a CAM plan as it vents inside the building and precontrol emission totals do not exceed the major source threshold.

EP FS005 – Fugitive emissions from equipment leaks. This facility is **not** subject to 40 CFR 63 Subpart VVVVVV (National Emission Standard for Hazardous Air Pollutants for Chemical Manufacturing Area Source). Stack testing data provided by Iowa Renewable Fuels Association indicated that the concentrations of acetaldehyde in the liquid and gas stream in the processes of fermentation and distillation at fuel-grade ethanol facilities in Iowa are less than the threshold of 0.1% for the NESHAP Subpart VVVVVV.

Emission point is subject to 40 CFR 60 Subpart A (General Provisions) and VV (Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry).

TK001-TK006- Emission Points are subject to 40 CFR 60 Subpart A (General Provisions) and Kb (Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels).

Facility delivered an Agency O&M plan for control equipment where Periodic Monitoring is required unless otherwise specified in respective operating limits of construction permits. (See

attached table and plans). The Department waives the stack test requirements, at this time, indicated by Periodic Monitoring.

S140 – This is a new unit to the Title V permit constructed at the beginning of 2024. S140 and the utility boilers shall not operate simultaneously. This unit is subject to NSPS KKKK. Initial stack testing required by construction permit 23-A-392 for NO_x and CO was completed on 10/23/2024. Test results have not been reviewed by the Department at this time.