

NDWEE ID: 86000**Name of Source:** Green Plains Wood River LLC**Source Classification:** Minor New Source Review (NSR) source at time of issuance
Area Source of Hazardous Air Pollutants (HAPs)

Regulatory changes may supersede information in this document. If the source should add or change equipment or change processes such that a NESHAP or NSPS subpart becomes an applicable requirement, it is the source's obligation to comply with that subpart and applicable requirements whether or not they are identified in the associated permitting action or Title 129. Also note that the NESHAP and NSPS subparts are subject to change. Detailed information related to NESHAP and NSPS subparts can be found on the NDWEE Air Toxics Notebook and NDWEE NSPS Notebook located on the NDWEE website (<https://dwee.nebraska.gov/>). The NDWEE website can also be used to find other permit related and facility specific information that is not identified in this fact sheet.

DESCRIPTION OF THE SOURCE OR ACTIVITY:

Green Plains Wood River, LLC (Green Plains) is an existing anhydrous ethanol manufacturing plant (Standard Industrial Classification (SIC) code 2869: Industrial Organic Chemicals, Not Elsewhere Classified; North American Industrial Classification System (NAICS) code 325193: Ethyl Alcohol Manufacturing).

Originally, the facility was permitted to produce fuel-grade ethanol; however, the facility received a permit in 2010 from the Alcohol and Tobacco Tax and Trade Bureau that also allows the production of anhydrous ethanol to be used as industrial alcohol.

Green Plains has the capability to produce approximately 141 million gallons per year (MMgal/yr) of anhydrous ethanol or add denaturant and produce approximately 145 MMgal/yr of denatured ethanol. Additionally, Green Plains produces up to 500,000 tons per year (tpy) of wet distiller's grain with solubles (WDGS) and up to 410,833 tpy of dried distiller's grain with solubles (DDGS). The facility can also produce modified wet distiller's grain with solubles (MWDGS).

Green Plains receives all the grain necessary for ethanol production from a nearby grain storage and handling facility, known as the Cargill AgHorizons West Elevator (West Elevator). The West Elevator was previously permitted under the name Pioneer Trail Energy, LLC (Cargill AgHorizons). It is owned by Cargill but leased and operated by Green Plains. The West Elevator is the sole grain provider for Green Plains. In CP22-041, Green Plains and the Cargill AgHorizons West Elevator (West Elevator) were determined to be a single source of emissions through the NDWEE. Then in CP24-040, Green Plains and Carbon Capture were determined to also be a single source of emissions through the NDWEE.

PERMIT HISTORY:

Date Issued	Number	Status
03/06/2006	CP05-0030	Not active, superseded by CP06-0052
04/11/2007	CP06-0052	Not active, Conditions II.(B), II.(C), III.(A), III.(B), III.(C), III.(G), III.(H), III.(K), and Permit Attachment IV superseded by CP08-016; Condition III.(J) superseded by CP10-002; Condition III.(D) superseded by CP15-013; Condition III.(F) superseded by CP16-011A; Conditions I., II.(A), II.(D), III.(E), and III.(I) superseded by CP19-036
05/08/2008	CP08-018P	Not active, superseded by CP08-016
12/16/2008	CP08-016	Not active, Condition III.(H) superseded by CP16-011A; Conditions III.(A), III.(B), III.(C), III.(G), III.(K), and Permit Attachment IV superseded by CP19-036
10/29/2010	CP10-002	Not active, superseded by CP11-013

Date Issued	Number	Status
01/09/2012	CP11-013	Not active, superseded by CP19-036
02/11/2016	CP15-013	Not active; Condition III.(L) superseded by CP16-025; Condition III.(D) superseded by CP16-011A
10/07/2016	CP16-025	Not active, Condition III.(L) superseded by CP16-011A
07/07/2017	CP16-011A	Not active, superseded by CP19-036 in its entirety
02/06/2020	CP19-036	Not active; Condition III.(L) superseded by CP20-015, the remaining Conditions superseded by CP20-017
07/28/2020	CP20-015	Not active, superseded by CP20-017
07/12/2021	CP20-017	Not active, superseded by CP21-014
08/19/2021	CP21-014	Not active, superseded by CP21-043
NA	#21-043	Not active, combined with #22-041 to issue CP22-041
04/27/2023	CP22-041	Partially active, Condition III.(B) superseded by CP24-040; Condition III.(J) superseded by CP26-009
07/23/2025	CP24-040	Active
TBD	CP26-009	Active

PERMIT ACTION:

On February 23, 2026, the Department received a construction permit application (#26-009) from Green Plains for the construction of a Storage Facility (SF) known as the Hoop Building Project to hold corn grain seed. Green Plains is limited at this storage facility to receive up to 9 million bushels per year (bu/yr). The Green Plains Hoop Building Project Storage Facility is composed of the following operations:

Two (2) Grain Receiving Pits (SF-01, EU134/EU135), each rated at 20,000 bushels per hour (bu/hr). Corn is delivered to this location by truck using both paved and unpaved roads on the Green Plains' property. The maximum intake of these truck dump pits meets the maximum intake of the bucket elevator described below and can utilize both truck dump pits simultaneously.

One (1) Bucket Elevator (SF-02, EU136), rated at 40,000 bu/hr, that directs grain to the conveyor belt leading to the Hoop building's indoor pile. The bucket elevator also moves grain from the Hoop Building's underground drag conveyor and places the grain in the facility's loadout tanks (further described below) for dispersal. The bucket elevator can only fill one (1) of these two (2) loadout tanks at a single time and the throughput is based on the maximum dispersion of the Underground Reclaim/Drag Conveyor of 10,000 bu/hr (Also further described below).

One (1) Belt Conveyor, that takes the grain from the Bucket Elevator system to the storage pile within the Hoop Building. In further email correspondence on July 9, 2026, it was confirmed that the conveyor has a maximum design capacity of 40,000 bu/hr and ensures there is no grain withheld in this building.

One (1) Hoop Building Grain Storage Facility (SF), with an indoor grain storage pile (SF-03, EU137) acknowledged in the application to only be able to store 4.5 million bu/yr of corn grain. In an email correspondence dated July 9, 2026, Green Plains would limit the total amount of grain received to 9 million bu/yr. The extra storage space allows the facility to take advantage of lower corn prices during harvest. In a correspondence email dated July 9, 2026, the source acknowledged they only intend to keep corn seed grain in this storage facility and that this building is to be enclosed, having a garage door at each end of the building. These garage doors are to remain closed with the exception that Green Plains is to use these access points to reach equipment for repairs and to conduct preventative maintenance.

The Hoop Building consists of a permanent concrete base with an underground drag/reclaim conveyor, permanent concrete sidewalls with a bolted-on metal truss system to hold up the fabric tarp roof cover, and an internal aeration system composed of centrifugal aeration fans that provide in-floor aeration. The Hoop Building uses the internal aeration systems fans to pull in outdoor air that can be directed into under-floor tunnels and cool targeted hot spots within the grain storage pile. The fans within the Hoop Building can be

operated individually. The internal aeration system is expected only to be used as needed and is not expected to run continuously or to run all fans at one time. Aeration is not expected to contribute to the facility PTE due to the aeration process not involving any mechanical grain handling, transferring, dropping or conveying, which are the primary activities that contribute to grain dust particulate matter (PM).

To reclaim the corn seed grain, the Hoop Building utilizes mechanical paddle sweeps to push the grain through a series of floor openings that direct the seed grain to an underground drag/reclaim conveyor to the Bucket Elevator and to the loadout tanks. Green Plains can reclaim the grain from the Hoop Building storage tanks by sending in a truck to collect from the loadout spouts and then transport the loaded grain to the Cargill AgHorizons grain elevator, to be used in the ethanol production process.

The Hoop Building storage pile is to be able to store corn seed grain for no more than 330 consecutive days per any 365 consecutive day period. During this period of no stored grain, stored grain is to be defined as any accumulable grain within the building that could be considered a pile. This may require the storage pile area to be swept clean leading up to the 330 consecutive days of grain storage.

For more information on SFs and the applicability of NSPS Subpart DD, please see the Chapter 12 discussion in the Supplemental Information section.

One (1) Underground Reclaim/Drag Conveyor (EURDC), within the Hoop Building, rated at 10,000 bu/hr. This underground drag/reclaim conveyor brings grain to the Bucket Elevator system to fill the loadout tanks and trucks via the loadout tank spouts.

Two (2) Loadout Tanks (SF-04, EU138/EU139), to receive grain from the Bucket Elevator system. Each loadout tank can hold 5,000 bushels of corn. As stated in the Bucket Elevator discussion, only one of these loadout tanks can be filled at any single time.

Two (2) Loadout Tank Spouts (SF-05, EU140/EU141), to load out grain to incoming Green Plains trucks, via an operator, which can then be trucked to the leased Cargill AgHorizons grain elevator. Each loadout tank described above is equipped with one (1) loadout tank spout.

TYPE AND QUANTITY OF AIR CONTAMINANT EMISSIONS ANTICIPATED:

Green Plains Wood River (FID# 86000) and Cargill AgHorizons West Elevator (FID# 25616), are considered a single stationary source, therefore, the single source emissions for this project, including fugitive emissions, are shown in the potential-to-emit (PTE) table below:

Regulated Pollutant	Pre-Project PTE ^[1] (ton/yr)	Post-Project PTE ^[1] (ton/yr)	Project PTE (ton/yr)
Particulate Matter (PM)	226.42	284.71	58.29
PM smaller than or equal to 10 microns (PM ₁₀)	144.74	164.74	20.00
PM smaller than or equal to 2.5 microns (PM _{2.5})	114.08	117.21	3.13
Sulfur Dioxide (SO ₂)	60.10	60.10	-
Oxides of Nitrogen (NO _x)	206.94	206.94	-
Carbon Monoxide (CO)	96.28	96.28	-
Volatile Organic Compounds (VOC)	243.67	243.67	-
Hazardous Air Pollutants (HAPs)			
Highest Individual HAP: Acetaldehyde	9.79	9.79	-
Total HAPs	18.75	18.75	-

^[1] Pre-Project PTE obtained from CP24-040, issued July 23, 2025.

SUPPLEMENTAL INFORMATION:

Title 129, Chapter 2 – Ambient Air Quality Standards

The changes in potential emissions from this permitting action are below the threshold for which modeling is required as summarized below; therefore, the NDWEE is not requiring ambient air quality dispersion modeling to support this permitting action. The NDWEE generally follows these thresholds.

Pollutant	Project Potential Emissions Change (ton/yr)	Emission Change Threshold (ton/yr)
CO	-	100
NO ₂	-	40
SO ₂	-	40
PM ₁₀	14.00	15
PM _{2.5}	2.38	10

Title 129, Chapter 4 – Prevention of Significant Deterioration (PSD)

Green Plains does contain a nested source of fossil-fuel boilers (or combination thereof) totaling more than 250 million British thermal units per hour of heat input. The nested source is not a major stationary source under the NSR program because potential emissions (including fugitive emissions) are below the NSR major stationary source threshold (100 tons per year per pollutant) for criteria pollutants for this category. This permit addition has no impact on Green Plains current classification within the NSR program because their potential emissions are still below NSR Major source thresholds of 250 tpy for all NSR pollutants.

Title 129, Chapter 12 – New Source Performance Standards and Emission Limits for Existing Sources

Standards of Performance for New Stationary Sources (NSPS) (Section 001)

Green Plains is currently subject to NSPS Subparts A, Dc, Kb, VV, and IIII. None of these NSPS are impacted by the Hoop Building Project and NSPS DD appears to not apply to this construction permit. See previous fact sheets for accompanying discussion for all of the already applicable NSPS Subparts.

Subpart DD – Standards of Performance for Grain Elevators:

This subpart, adopted by reference in Title 129, Chapter 12, Section 001.36, applies to grain terminal elevators and grain storage elevators that commence construction after August 3, 1978.

In an email correspondence from the source dated June 08, 2026, discussions were conducted regarding the permanence of the Hoop Building structure. It was understood that the concrete floor and the concrete sidewalls to the Hoop Building are not designed to be removed. From this correspondence, it was understood that the conveyors are not intended to be moved and the truck dump pits are not designed to be removed after installation. Furthermore, the grain receiving pits, the grain elevator, and the loadout tanks/spouts are also permanent in nature. This correspondence confirmed that the Hoop Building and the components connected to the building are permanent and thus contribute to the facility's permanent storage capacity.

Since the Hoop Building storage capacity is limited to 4.5 million bushels, this building and the combined single source facility meets the definition of a grain terminal elevator as defined in NSPS DD - Standards of Performance for Grain Elevators prescribed in §60.301 *Definitions*:

- (a) **Grain** means corn, wheat, sorghum, rice, rye, oats, barley, and soybeans.
- (b) **Grain elevator** means any plant or installation at which grain is unloaded, handled, cleaned, dried, stored, or loaded.
- (c) **Grain terminal elevator** means any grain elevator which has a permanent storage capacity of more than 88,100 m³ (ca. 2.5 million U.S. bushels), except those located at animal food

manufacturers, pet food manufacturers, cereal manufacturers, breweries, and livestock feedlots.

- (d) ***Permanent storage capacity*** means grain storage capacity which is inside a building, bin, or silo.

NDWEE determined that this project is adding storage capacity to the combined single source facility with the acknowledgment that the storage capacity of the Hoop Building is not permanent.

In an email correspondence with the source dated September 9, 2026, it was explained that the purpose of the Hoop Building is to take advantage of favorable corn prices during harvest season and store this grain for a limited amount of time.

Taking advantage of the favorable corn prices ensure the facility get a chance to maximize the favorability of pricing and ensure profitability of the business. Currently the plant has lower capability of taking advantage of low-priced grain they can buy/store. The new storage facility Hoop Building that is to temporarily hold corn is to allow the plant to take much more advantage of low-priced harvest corn that is currently available.

In the same email correspondence with the source from September 9, 2026, the source further explained that the 9-million-bushel limit provided by the source is less than 20% of the facility's total annual corn throughput. This was found to be a fact as the 9 million bushel per year limitation equates to 252,000 tons of grain while the calculations for this facility show that they are capable of handling 1,353,333 tons of grain per year. The resulting Hoop Building as limited, can only hold 18.6% of the facility's yearly grain throughput. To quote the source "With this limit, there is no way that the facility will ever be in continuous use year-round as it cannot keep up with the plant's corn demand. The use of this hoop facility is of temporary nature in that we will have it empty and removed from service yearly before harvest every year..." this statement aligns with the limitation within the permit that EU137 is to store grain for no more than 330 consecutive days per any 365 consecutive day period. Thus, the storage facility structure is permanent in nature but the corn within is not. It is for this reason the Hoop Building is considered a Storage Facility for the temporary holding of grain.

Green Plains must comply with all applicable NSPS subparts and requirements regardless of their inclusion in this permitting action or Title 129. These rules are subject to change. Information regarding NESHAP is available on the NDWEE Air Toxics Notebook, which can be located by visiting the NDWEE website at <https://dwee.nebraska.gov>, by first selecting "Menu" at the top of the page, the "Air" dropdown menu tab, then the "Air Toxics Program" dropdown menu tab, and then "Air Toxics Notebook".

Title 129, Chapter 13– Hazardous Air Pollutants

National Emission Standards for Hazardous Air Pollutants (NESHAP) (Section 002)

Green Plains is currently subject to NESHAP Subparts A, ZZZZ, and CCCCCC.

This project will not change any NESHAP applicability at Green Plains. For a full discussion of NESHAP applicability at Green Plains, see the fact sheet attachments accompanying previously issued construction permits.

Green Plains must comply with all applicable NESHAP requirements regardless of their inclusion in this permitting action or Title 129. These rules are subject to change. Information regarding NESHAP is available on the NDWEE Air Toxics Notebook, which can be located by visiting the NDWEE website at <https://dwee.nebraska.gov>, by first selecting "Menu" at the top of the page, the "Air" dropdown menu tab, then the "Air Toxics Program" dropdown menu tab, and then "Air Toxics Notebook".

Maximum Achievable Control Technology (MACT) (Section 004)

For purposes of HAP emissions, Green Plains and all contiguous and adjacent facilities under common ownership and control must be evaluated as the same source. HAP emissions from all three (3) Green Plains associated facilities (Green Plains Wood River, LLC (Green Plains), Cargill AgHorizons West Elevator (West Elevator), and Carbon Capture) are included when making major source determinations for HAPs.

This permitting action is not subject to the requirements of Chapter 13, Section 004.03 because the PTE for individual and total HAPs are below the respective 10 and 25 ton/yr thresholds.

Title 129, Chapter 15 - Particulate Emissions; Limitations and Standards

Process Weight Rate (Section 001.01)

Title 129, Chapter 15, Section 001.01 limits PM (filterable) emissions to the amounts shown in Table 15-1 during any one hour. These process weight rate limits, which are based on throughput of the emission units, vary as throughputs change. Since the potential to emit for each emission point is less than the process weight rate limitations, these PM limitations were not included in Condition III of this permit.

Opacity Limitations from Emission Units (Section 001.04)

Specific Condition I.(J) specifies that no person shall cause or allow emissions, from any source, which has an opacity equal to or greater than twenty percent (20%). Opacity must be determined using an EPA-approved method or recorded by a continuous opacity monitoring system which has been operated and maintained pursuant to 40 CFR Part 60 Appendix B except as provided for in Chapter 15, Sections 001.05 and 001.06 (Title 129, Chapter 15, Section 001.04). Therefore, while not specifically stated in Condition III., this requirement is still applicable to all emission units at the source that are not subject to a more stringent standard.

NEW AND REVISED SPECIFIC PERMIT CONDITIONS DISCUSSION:

Below is a mark-up that identifies all of the revisions to the original conditions. Additions are **bolded and underlined**, deletions are in ~~strikethrough~~, and NDWEE comments are in *italics*.

References to the "Nebraska Department of Environmental Quality" or "Nebraska Department of Environment and Energy" have been revised to "Nebraska Department of Water, Energy, and Environment" and references to "NDEQ" or "NDEE" have been revised to "NDWEE" to reflect the agency name change, effective July 01, 2025.

Nebraska Administrative Code - Title 129 was amended on September 28, 2022. As part of this permitting action, the NDWEE is updating "I. Standard Conditions" and "II. General Construction Permit Conditions" to reflect updated Title 129 Chapter citations. Additionally, as part of this permitting action, the NDWEE is also updating all citations in the applicable Specific Conditions to reflect updated Title 129 Chapter citations. Previously issued construction permits with active conditions are still subject to the Title 129 requirements as effective at the time of permit issuance.

As part of this permitting action, every Specific Condition containing "Reporting and Recordkeeping Requirements" has included a preface to the sub-condition stating "The owner or operator shall maintain the following records:"

Condition III.(J) now reads:

III.(J) Specific Conditions for Haul Roads (FS-01 & SF-Roads)

(1) Permitted Emission Points:

- (a) All on-site haul roads with production-related truck traffic shall be paved except for the overflow parking area south of the truck weighing scales. (Chapters 2 and 15 Section 003)
- (b) The overflow parking area shall be covered in gravel. (Chapters 3 and 15 Section 003)

(2) Emission Limitations and Testing Requirements:

- (a) **The requirements specified in Title 129, Chapter 15, Section 001.04 are applicable to the haul roads (FS-01 and SF-Roads). (Chapter 15)**
- (b) **This permit does not establish any emissions limitations or testing requirements for the haul roads (FS-01 and SF-Roads).**

(3) Operational and Monitoring Requirements and Limitations:

- (a) The owner or operator shall develop, maintain, and implement a Best Management Practices (BMP) plan to control emissions from haul roads and overflow parking area to comply with

Conditions I.(L) and III.(J)(2). The effectiveness of the BMP to minimize emissions from haul roads/overflow parking area and maintain the permitted silt loading value be demonstrated by compliance with Condition I.(L). (Chapters 3 and 15 Section 003)

- (b) For each day of operation, the owner or operator shall conduct a survey of the plant property and haul roads to determine if visible fugitive emissions are being generated and leaving plant property. Implementation of fugitive dust controls shall be taken upon observation of visible fugitive emissions leaving plant property or more frequently in accordance with the BMP plan. Documentation of all fugitive dust control measures implemented and daily surveys shall be maintained in a log accompanying the BMP plan. (Chapters 3 and 15 Section 003)
- (4) Applicable NSPS, NESHAP, and MACT Requirements:

At this time, the NDWEE has not identified any NSPS, NESHAP, or MACT requirements that apply to the haul roads or overflow parking area.
- (5) Recordkeeping and Reporting Requirements:

The owner or operator shall maintain the following records:

- (a) Records documenting the use of fugitive dust control measures on haul roads and overflow parking area.
- (b) Records of visible emission surveys taken daily during operation and a description of corrective action taken, if needed.

Specific Condition III.(J) has been updated to include requirements for any redefined Haul Roads resulting from the addition of the Storage Facility (SF), the Storage Facility's Haul Roads (SF-Roads) and all associated operations.

Specific Condition III.(N) has been added as part of this permitting action; the requirements prescribed in this condition are further discussed below:

III.(N) Grain Storage Facility, Receiving Pits, Bucket Elevator, and Loadout Tanks

This condition specifies the emission points, associated emission units, and emission unit capacities associated with the new storage facility, including the receiving pits, bucket elevator, conveyors, storage pile, and loadout tanks/spouts. The emissions limitations prescribed in Title 129, Chapter 15, Sections 001.01 and 001.04 are applicable to this facility. Method 9 performance testing for opacity is required to be conducted for the emission units subject to the requirements of Title 129, Chapter 15, Section 001.04.

Condition III.(N)(3)(b) prescribes limitations for the amount of grain received by the storage facility. Compliance with these conditions is prescribed by recordkeeping requirements for the amount of grain received by each grain truck as prescribed in Conditions III.(N)(5)(b).

Condition III.(N)(3)(c) prescribes limitations for the number of consecutive days the storage facility Indoor Pile can store grain. Compliance with these conditions is prescribed by recordkeeping requirements for the amount of grain stored from each truck as prescribed in Condition III.(N)(5)(c). The building is to be clear of any stored grain upon the 330 consecutive days of storage.

Condition III.(N)(3)(d) prescribes daily visible emissions surveys to verify that there are no visible emissions due to leaks or other indications that equipment is not operating properly. Compliance with this condition will be demonstrated through the recordkeeping of each visible emissions survey, including Method 9 performance testing results, in a logbook as prescribed in Condition III.(N)(5)(c).

Condition III.(N)(5)(a) prescribes recordkeeping requirements to verify the capacity of each emission unit identified in this condition.

Fact Sheet Attachment

PTE Summary for Green Plains Wood River LLC FID#: 86000 and Cargill AgHorizons West Elevator FID#: 25616

Criteria Pollutant PTE Summary

Facility	Pollutants (ton/yr)						
	PM	PM ₁₀	PM _{2.5}	SO _x	NO _x	CO	VOC
PTE w/ Fugitives From Green Plains Wood River (FID# 86000)	220.60	140.15	112.36	60.07	201.69	91.87	243.38
PTE w/ Fugitives From Cargill AgHorizons (FID# 25616)	64.11	24.59	4.86	0.03	5.25	4.41	0.29
Total PTE w/fugitives for the Combined Single Source	284.71	164.74	117.21	60.10	206.94	96.28	243.67
Previous PTE w/fugitives for the Combined Single Source ^[1]	226.42	144.74	114.08	60.10	206.94	96.28	243.67
Change in PTE w/fugitives for the Combined Single Source	58.29	20.00	3.13	-	-	-	-

^[1] Prior PTE obtained from Fact Sheet Attachment to CP24-040, issued 07/23/2025.

HAP PTE Summary

Hazardous Air Pollutant	Facility		Total Single Hazardous Air Pollutants (ton/yr)
	PTE from Green Plains Wood River (FID# 86000) (ton/yr)	PTE From Cargill AgHorizons (FID# 25616) (ton/yr)	
1,3-Butadiene	1.01E-05	-	1.01E-05
Acetaldehyde	9.79	-	9.79
Acrolein	0.73	-	0.73
Benzene	0.11	1.10E-04	0.11
Carbon disulfide	1.14E-04	-	1.14E-04
Cumene	5.68E-04	-	5.68E-04
Dichlorobenzene	3.08E-03	6.30E-05	3.14E-03
Ethyl benzene	2.84E-04	-	2.84E-04
Formaldehyde	1.71	3.94E-03	1.71
Hexane	4.91	0.09	5.00
Methanol	1.33	-	1.33
Naphthalene	1.59E-03	3.20E-05	1.62E-03
Polycyclic Organic Matter (POM)	2.48E-04	4.63E-06	2.52E-04
Pyrene	4.64E-06	-	4.64E-06
Toluene	0.04	1.79E-03	0.04
Xylene	2.92E-03	-	2.92E-03
Arsenic Compounds (ASC)	5.13E-04	1.05E-05	5.24E-04
Beryllium Compounds (BEC)	3.08E-05	6.30E-07	3.14E-05
Cadmium Compounds (CDC)	2.82E-03	5.78E-05	2.88E-03
Chromium Compounds (CRC)	3.59E-03	7.35E-05	3.67E-03
Cobalt Compounds (COC)	2.16E-04	4.41E-06	2.20E-04
Lead Compounds	1.28E-03	2.63E-05	1.31E-03
Manganese Compounds (MNC)	9.76E-04	2.00E-05	9.95E-04
Mercury Compounds (HGC)	6.68E-04	1.37E-05	6.81E-04
Nickel Compounds (NIC)	5.39E-03	1.10E-04	5.50E-03
Selenium Compounds (SEC)	6.16E-05	1.26E-06	6.29E-05
Total HAPS	18.65	0.10	18.75
Total HAPS Prior to Permitting Action ^[1]	18.65	0.10	18.75
Change in PTE	-	-	-

^[1] Prior HAP PTE obtained from Fact Sheet Attachment to CP24-040, issued 07/23/2025.

Fact Sheet Attachment

PTE Summary for Green Plains Wood River LLC FID#: 86000

Potential Emissions (Including Fugitives)

Pollutant	Previous Potential Emissions^[1]	Potential Emissions After <u>CP26-009</u>	Change in PTE
	(ton/yr)	(ton/yr)	(ton/yr)
PM	162.31	220.60	58.29
PM ₁₀	120.15	140.15	20.00
PM _{2.5}	109.22	112.36	3.13
NO _x	201.69	201.69	-
SO _x	60.07	60.07	-
CO	91.87	91.87	-
VOC	243.38	243.38	-
Total HAPs	18.75	18.75	-
Acetaldehyde	9.79	9.79	-
GHGs (mass basis)	743,979	743,979	-
GHGs (CO ₂ e basis)	744,282	744,282	-

^[1] As calculated in the Fact Sheet Attachment to CP24-040, issued 07/23/2025.

Potential Emissions (Excluding Criteria pollutant Fugitives)

Pollutant	Previous Potential Emissions^[1]	Potential Emissions After <u>CP26-009</u>	Change in PTE
	(ton/yr)	(ton/yr)	(ton/yr)
PM	113.96	147.72	33.76
PM ₁₀	109.49	123.49	14.00
PM _{2.5}	107.52	109.90	2.38
NO _x	201.69	201.69	-
SO _x	60.07	60.07	-
CO	91.87	91.87	-
VOC	226.49	226.49	-
Total HAPs	18.75	18.75	-
Acetaldehyde	9.79	9.79	-
GHGs (mass basis)	743,979	743,979	-
GHGs (CO ₂ e basis)	744,282	744,282	-

^[1] As calculated in the Fact Sheet Attachment to CP24-040, issued 07/23/2025.

Fact Sheet Attachment

Emissions by Emission Point for Green Plains Wood River LLC FID#: 86000

Emission Unit(s)	Emission Point	PM	PM ₁₀	PM _{2.5}	NO _x	SO ₂	CO	VOC
		(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)
Grain Elevator Baghouse #1	EP-4	0.30	0.17	0.03	-	-	-	-
Grain Storage Baghouse	EP-5	0.94	0.24	0.04	-	-	-	-
Hammermill Baghouse #1	EP-6	0.68	0.36	0.27	-	-	-	-
Hammermill Baghouse #2	EP-7	0.68	0.36	0.27	-	-	-	-
Hammermill Baghouse #3	EP-8	0.68	0.36	0.27	-	-	-	-
Hammermill Baghouse #4	EP-9	0.68	0.36	0.27	-	-	-	-
Fermentation (CO ₂) Scrubber or Electric Reboiler Still Vent	EP-10 or EP-CC-03 ^[1]	0.44	0.44	0.44	-	-	-	118.26
DDGS Reclaim Baghouse	EP-11	0.15	0.04	0.04	-	-	-	-
DDGS Handling Baghouse	EP-12	0.24	0.06	0.06	-	-	-	-
DDGS Bulkweigher Leg Baghouse	EP-13	0.24	0.06	0.06	-	-	-	-
DDGS Bulkweigher Baghouse	EP-14	0.06	0.01	0.01	-	-	-	-
DDGS Bucket Elevator Baghouse	EP-24	0.09	0.02	0.02	-	-	-	-
DDGS Truck Loadout Spout	EP-40	0.68	0.16	0.16	-	-	-	-
DDGS Rail Loadout Spout	EP-41	0.00	0.00	0.000	-	-	-	-
Protein Dryer/Scrubber/RTO	EP-15	43.80	43.80	43.80	70.08	29.52	28.21	57.82
DDGS Dryer/RTO	EP-16	43.80	43.80	43.80	70.08	29.52	28.21	35.04
Boiler #1	EP-17	2.01	2.01	2.01	14.57	0.24	7.28	0.79
Boiler #2	EP-18	2.01	2.01	2.01	14.57	0.24	7.28	0.79
Boiler #3	EP-19	2.01	2.01	2.01	14.57	0.24	7.28	0.79
Boiler #4	EP-20	2.01	2.01	2.01	14.57	0.24	7.28	0.79
Emergency Generator	EP-21	0.02	0.02	0.02	0.35	0.02	0.08	0.03
Emergency Fire Pump	EP-22	0.02	0.02	0.02	0.44	0.05	0.15	0.06
Vent Gas Scrubber #1	EP-42	0	0	0	-	-	-	0
Vent Gas Scrubber #2	EP-43	0	0	0	-	-	-	0
Ethanol Loadout and Flare	EP-23	3.26E-03	3.26E-03	3.26E-03	2.46	2.58E-04	6.09	5.93
Compressor Blowdown and Rodpacking	EP-CC-01	-	-	-	-	-	-	0.15
Cooling Tower	FS05	2.41	1.69	1.01	-	-	-	-
DDGS Loadout Uncaptured	FS03	1.25	0.70	0.12	-	-	-	-
Equipment Leaks (Fugitive)	FS04 and FUG-CC-04	-	-	-	-	-	-	14.81
Storage Tanks	TANKS	-	-	-	-	-	-	2.26
Haul Roads (Fugitive)	FS01	48.35	10.65	1.70	-	-	-	-
Protein Cooler & Dust Collector	EP-120	4.02	4.02	4.02	-	-	-	3.79
Protein Storage & Dust Collectors	EP-122, EP-122AF, EP-123AF	1.20	1.20	1.20	-	-	-	-
Protein Loadout & Dust Collector	EP-124	3.52	3.52	3.52	-	-	-	-
Uncaptured Storage and Loadout (Fugitive)	FS07	0.01	2.10E-03	2.10E-03	-	-	-	-
WDGS Storage (Fugitive)	FS06	-	-	-	-	-	-	2.08
Storage Facility (SF) (Project CP26-009)								
SF Receiving Pits (EU134/EU135)	EP-SF-01	4.41	0.98	0.16	-	-	-	-
SF Handling (Elevator) (EU136)	EP-SF-02	15.37	8.57	1.46	-	-	-	-
SF Indoor Pile (EU137)	EP-SF-03	2.49E-03	1.18E-03	1.78E-04	-	-	-	-
SF Loadout Tanks (EU138/EU139)	EP-SF-04	3.15	0.79	0.14	-	-	-	-
SF Loadout Spouts (EU140/EU141)	EP-SF-05	10.84	3.65	0.62	-	-	-	-
SF Haul roads (Fugitive)	EP-SF-Roads	24.52	6.00	0.75	-	-	-	-
Facility Wide Total (including fugitives)	Pre-Project^[2]	162.31	120.15	109.22	201.69	60.07	91.87	243.38
	Post-Project	220.60	140.15	112.36	201.69	60.07	91.87	243.38
Facility Wide Total (excluding fugitives)	Pre-Project^[2]	113.95	109.49	107.52	201.69	60.07	91.87	226.49
	Post-Project	147.72	123.49	109.90	201.69	60.07	91.87	226.49

^[1] Emissions from the fermentation scrubber are permitted to directly emit to the atmosphere at EP-10 or routed through the carbon capture facility where they are expected to vent through the still vent at EP-CC-03 or be sent through a sequestration pipeline.

^[2] Pre-Project emissions obtained from Fact Sheet Attachment to CP24-040, issued 07/23/2025.

Receiving Pits Emission Summary for Green Plains Wood River LLC FID#: 86000

Emission Points: SF-01

Grain Receiving

Emission Units	PM Emission Factor ^[1] (lb/ton)	PM ₁₀ Emission Factor ^[1] (lb/ton)	PM _{2.5} Emission Factor ^[1] (lb/ton)	Hourly Throughput ^[2] (ton/hr)	Uncontrolled		
					PM PTE ^[3]	PM ₁₀ PTE ^[3]	PM _{2.5} PTE ^[3]
					(lb/hr)	(lb/hr)	(lb/hr)
EU134: SF Truck Receiving Pit #1	0.035	0.0078	0.0013	560	19.60	4.37	0.73
EU135: SF Truck Receiving Pit #2	0.035	0.0078	0.0013	560	19.60	4.37	0.73

^[1] Emission factors from AP-42, chapter 9 table 9.9.1-1 for grain receipt at elevators

^[2] Each receiving pit has a maximum capacity of 20,000 bushels/hr. These pits can be used simultaneously to fill the SF. Converted from bushels to tons using 56 lbs per bushel of corn.

^[3] Emissions (lb/hr) = Emission Factor (lb/ton) * Hourly Throughput (ton/hr).

Emission Point	PM Emission Factor ^[1] (lb/ton)	PM ₁₀ Emission Factor ^[1] (lb/ton)	PM _{2.5} Emission Factor ^[1] (lb/ton)	Annual Throughput Limit ^[2] (ton/yr)	Uncontrolled		
					PM PTE ^[3]	PM ₁₀ PTE ^[3]	PM _{2.5} PTE ^[3]
					(ton/yr)	(ton/yr)	(ton/yr)
SF-01: SF Truck Receiving Pits	0.035	0.0078	0.0013	252,000.00	4.41	0.98	0.16

^[1] Emission factors from AP-42, chapter 9 table 9.9.1-1 for grain receipt at elevators.

^[2] Storage capacity of new Storage Facility (SF) is approximately 4.5 million bushels. GPWR intends to use the SF as storage space (one turnover per year). In an email correspondence dated July, 9/2026 GPWR made an addendum to limit the SF to 9.0 million bushels (252,000 tons) received per year. 1 bushel of corn = 56 lb.

^[3] Emissions (lb/hr) = Emission Factor (lb/ton) * Hourly Throughput (ton/hr).

Elevator Handling Emission Summary for Green Plains Wood River LLC FID#: 86000

Emission Point: SF-02

TSF Grain Handling

Emission Unit	PM Emission Factor ^[1]	PM ₁₀ Emission Factor ^[1]	PM _{2.5} Emission Factor ^[1]	Hourly Throughput ^[2]	Uncontrolled		
					PM PTE ^[3]	PM ₁₀ PTE ^[3]	PM _{2.5} PTE ^[3]
	(lb/ton)	(lb/ton)	(lb/ton)	(ton/hr)	(lb/hr)	(lb/hr)	(lb/hr)
EU136: SF Bucket Elevator (Loadout)	0.061	0.034	0.0058	1,120.00	68.32	38.08	6.50
EU136: SF Bucket Elevator (Receiving)	0.061	0.034	0.0058	280.00	17.08	9.52	1.62
Maximum:					68.32	38.08	6.50

^[1] Emission factors are from AP-42 Chapter 9, Section 9.9.1 Table 9.9.1-1

^[2] Bucket elevator is rated at 40,000 bushels/hr. When receiving grain, the bucket elevator feeds a belt conveyor inside the SF also rated at 40,000 bushels/hr. To reclaim grain, mechanical sweepers push grain in the SF to an underground reclaim conveyor rated at 10,000 bushels/hr. The reclaim conveyor feeds the bucket elevator which then directs the grain to loadout tanks for loading grain to trucks. Therefore, the reclaim conveyor bottlenecks the bucket elevator to a rate of 10,000 bushels/hr during reclaim of the grain. This design prevents receipt and loadout of grain from occurring simultaneously.

^[3] Emissions (lb/hr) = Emission Factor (lb/ton) * hourly Throughput (ton/hr)

Emission Unit	PM Emission Factor ^[1]	PM ₁₀ Emission Factor ^[1]	PM _{2.5} Emission Factor ^[1]	Annual Throughput Limit ^[2]	Uncontrolled		
					PM PTE ^[3]	PM ₁₀ PTE ^[3]	PM _{2.5} PTE ^[3]
	(lb/ton)	(lb/ton)	(lb/ton)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)
EU136: SF Bucket Elevator (Loadout)	0.061	0.034	0.0058	252,000.00	7.686	4.284	0.7308
EU136: SF Bucket Elevator (Receiving)	0.061	0.034	0.0058	252,000.00	7.686	4.284	0.7308
Total:					15.372	8.568	1.4616

^[1] Emission factors from AP-42, chapter 9 section 9.9.1, table 9.9.1-1

^[2] Storage capacity of new Storage Facility (SF) is approximately 4.5 million bushels. GPWR intends to use the SF as storage space (one turnover per year). In an email correspondence dated July, 9/2026 GPWR made an addendum to limit the SF to 9.0 million bushels (252,000 tons) received per year. 1 bushel of corn = 56 lb.

^[3] Emissions (lb/hr) = Emission Factor (lb/ton) * Annual Throughput (ton/yr) /2000.

Indoor Pile Emission Summary for Green Plains Wood River LLC FID#: 86000

Emission Point: SF-03

Equation 1:
$$E = (k) \times (0.0032) \times \left(\frac{(U / 5)^{1.3}}{(M / 2)^{1.4}} \right)$$

Emission Factor Calculations				
Pollutant	Particulate Size Multiplier (k)	Mean Wind Speed ^[1] (U)	Material Moisture Content (M)	Emission Factor (E)
		(mph)	(%)	(lb/ton)
PM	0.74	0.67	15.5	9.87633E-06
PM ₁₀	0.35	0.67	15.5	4.67124E-06
PM _{2.5}	0.053	0.67	15.5	7.07359E-07

^[1] Indoor wind speed of 0.3 m/s on P.E.J. Baldwin & A.D. Maynard "A Survey of Wind Speeds in Indoor Workplaces" Ann Occup Hyg 1998. 42(5):303-313.
<http://annhyg.oxfordjournals.org/content/42/5/303.abstract>

Grain Receiving Throughput Limit: 252,000.00 (ton/yr)
Maximum Receiving Capacity: 1,120 (ton/hr)

Grain Shipment Throughput Limit: 252,000.00 (ton/yr)
Maximum Ship Capacity: 280 (ton/hr)

Dropping Grain onto Pile from overhead Belt Conveyor			
Pollutant	Emission Factor ^[1]	Potential Uncontrolled Emissions	
	(lb/ton)	(lb/hr) ^[2]	(ton/yr) ^[3]
PM	9.87633E-06	0.011	1.24E-03
PM ₁₀	4.67124E-06	5.23E-03	5.89E-04
PM _{2.5}	7.07359E-07	7.92E-04	8.91E-05

^[1] Emission Factors calculated using Equation 1 above from AP-42 Chapter 13.2.4.

^[2] lb/hr emissions are calculated using the maximum design capacity of the equipment as the grain elevator. 40,000 bu/hr * 56 lb/bu * (1ton / 2000 lb) = 1,120 ton/hr.

^[3] ton/yr emissions are calculated using the limited ton-per-year throughput of 9,000,000 bushels/yr.

Mechanical Sweepers to Underground Conveyor			
Pollutant	Emission Factor ^[1]	Potential Uncontrolled Emissions	
	(lb/ton)	(lb/hr) ^[2]	(ton/yr) ^[3]
PM	9.87633E-06	2.77E-03	1.24E-03
PM ₁₀	4.67124E-06	1.31E-03	5.89E-04
PM _{2.5}	7.07359E-07	1.98E-04	8.91E-05

^[1] Emission Factors calculated using Equation 1 above from AP-42 Chapter 13.2.4.

^[2] lb/hr emissions are calculated using the maximum design capacity of the equipment

^[3] ton/yr emissions are calculated using the limited ton-per-year throughput of 9,000,000 bushels/yr

Total PM Emissions from indoor piles of SF	
Pollutant	Potential Uncontrolled Emissions (ton/yr)
PM	2.49E-03
PM ₁₀	1.18E-03
PM _{2.5}	1.78E-04

Loadout Emission Summary for Green Plains Wood River LLC FID#: 86000

Emission Point: SF-04 and SF-05

Grain Receiving

Emission Unit	PM Emission Factor ^[1] (lb/ton)	PM ₁₀ Emission Factor ^[1] (lb/ton)	PM _{2.5} Emission Factor ^[1] (lb/ton)	Hourly Throughput ^[2] (ton/hr)	Uncontrolled		
					PM PTE ^[3]	PM ₁₀ PTE ^[3]	PM _{2.5} PTE ^[3]
					(lb/hr)	(lb/hr)	(lb/hr)
EU138: SF Loadout Tank #1	0.025	0.0063	0.0011	140	3.50	0.88	0.15
EU139: SF Loadout Tank #2	0.025	0.0063	0.0011	140	3.50	0.88	0.15
EU140: SF Loadout Spout #1	0.086	0.029	0.0049	140	12.04	4.06	0.69
EU141: SF Loadout Spout #2	0.086	0.029	0.0049	140	12.04	4.06	0.69

^[1] Emission factors from AP-42 Chapter 9, section 9.9.1, table 9.9.1-1 for storage bin vents and truck shipping at grain elevators.

^[2] Hourly Throughput based on maximum capacity 10,000 bushel/hr of the reclaim conveyor. Converted from bushels to tons using 56 lb/bushel of corn.

^[3] Emissions (lb/hr) = Emission Factor (lb/ton) * Annual Throughput (ton/yr) / 2000 (lb/ton).

Emission Point	PM Emission Factor ^[1] (lb/ton)	PM ₁₀ Emission Factor ^[1] (lb/ton)	PM _{2.5} Emission Factor ^[1] (lb/ton)	Hourly Throughput ^[2] (ton/yr)	Uncontrolled		
					PM PTE ^[3]	PM ₁₀ PTE ^[3]	PM _{2.5} PTE ^[3]
					(ton/yr)	(ton/yr)	(ton/yr)
SF-04: SF Loadout Tanks	0.025	0.0063	0.0011	252,000.00	3.15	0.79	0.14
SF-05: SF Truck Loadout Spouts	0.086	0.029	0.0049	252,000.00	10.84	3.65	0.62
Total:					13.99	4.45	0.76

^[1] Emission factors from AP-42 Chapter 9, section 9.9.1, table 9.9.1-1 for storage bin vents and truck shipping at grain elevators.

^[2] Storage capacity of new Storage Facility (SF) is approximately 4.5 million bushels. GPWR intends to use the SF as storage space (one turnover per year). In an email correspondence dated July, 9/2026 GPWR made an addendum to limit the SF to 9.0 million bushels (252,000 tons) received per year.

^[3] Emissions (lb/hr) = Emission Factor (lb/ton) * Annual Throughput (ton/yr) / 2000 (lb/ton).

SF Haul Road Emission Summary for Green Plains Wood River LLC FID#: 86000

Emission Point: SF-Roads

Paved roads {AP-42 Chapter 13.2.1 (1/11)}

$$\text{Equation (2): } E = k \times (sL)^{0.91} \times (W)^{1.02} \times \left(1 - \frac{P}{4 \times 365}\right)$$

(modified)

	<i>k</i>
PM	0.011
PM ₁₀	0.0022
PM _{2.5}	0.0005

Unpaved roads {AP-42 Chapter 13.2.2 (11/06)}

$$\text{Equation (1a): } E = k \times \left(\frac{sC}{12}\right)^a \times \left(\frac{W}{3}\right)^b \times \left(\frac{365-P}{365}\right) \times \left(\frac{S}{30}\right)^d \times (1-CE)$$

(modified)

	<i>k</i>	<i>a</i>	<i>b</i>	<i>d</i>
PM	4.9	0.7	0.45	0.3
PM ₁₀	1.5	0.9	0.45	0.5
PM _{2.5}	0.15	0.9	0.45	0.5

Haul Road / Traffic Parameters

Activity / Road Description	Road Type / Silt Value		Roundtrip Length (feet)		Truck Weight (tons)			Ave. Speed (mph)	Unrestricted Maximum Throughput (units/yr)	Ave. Truck Capacity (units/truck)		Annual VMT
			empty	full	empty	full	Ave.					
SF Fill - Paved	p	3.00	233	1,661	17	42	38.9	15	252,000.00	25	ton	3,616
SF Fill - Gravel	u	10.00	1,041	372	17	42	23.6	15	252,000.00	25	ton	2,698
SF Reclaim - Paved	p	3.00	2,400	1,598	17	42	27.0	15	252,000.00	25	ton	7,633
SF Reclaim - Gravel	u	10.00	344	1,000	17	42	35.6	15	252,000.00	25	ton	2,566

Emission Calculations

	Emission Factors (lb/VMT)			Potential Emissions (ton/yr)		
	PM	PM ₁₀	PM _{2.5}	PM	PM ₁₀	PM _{2.5}
SF Fill - Paved	1.17	0.23	0.06	2.12	0.42	0.10
SF Fill - Gravel	6.68	1.72	0.17	9.00	2.31	0.23
SF Reclaim - Paved	0.81	0.16	0.04	3.09	0.62	0.15
SF Reclaim - Gravel	8.03	2.06	0.21	10.31	2.65	0.26
Total Annual Emissions:	24.52	6.00	0.75			

Description of Constants/Variables

E: haul road emissions (lb/VMT)

k, d: dimensionless constants from Draft AP-42 Chapter 13.IV (paved)

k, a, b, c, d: dimensionless constants from AP-42

Tables 13.2.1-1 & 13.2.2-2 (unpaved)

sL: silt loading (g/m²) of paved road surface

sC: silt content (%) of unpaved road surface

W: average vehicle weight (tons)

P: days/yr with at least 0.01" of precipitation

P = 90 default = 90

S: mean vehicle speed on road (mph)

default = 30, minimum = 15

CE: unpaved road, dust control efficiency

CE = 0 % default = 0%

VMT: vehicle miles traveled

Fact Sheet Attachment

Green Plains Wood River LLC (FID# 86000)

Chapter 15 Section 001 Calculations

Title 129, Chapter 15, Section 001.01

For process weight rates up to 60,000 lb/hr:

$$E = 4.10 p^{0.67}$$

where E = rate of emissions in lb/hr PM and p = process weight rate in ton/hr.

For process weight rates in excess of 60,000 lb/hr:

$$E = 55.0 p^{0.11} - 40$$

Process (Emission Point)	Process Weight Rate (ton/hr)	Allowable Emission Rate (lb/hr)	PM Emission Rate (lb/hr)
Cooling Tower (FS05)	12,510	115.26	0.55
Grain Elevator Baghouse #1 (EP-4)	154.5	55.75	0.07
Grain Storage Baghouse (EP-5)	154.5	55.75	0.21
Hammermill Baghouse #1 (EP-6)	154.5	55.75	0.15
Hammermill Baghouse #2 (EP-7)	154.5	55.75	0.15
Hammermill Baghouse #3 (EP-8)	154.5	55.75	0.15
Hammermill Baghouse #4 (EP-9)	154.5	55.75	0.15
DDGS Reclaim Baghouse (EP-11)	46.9	43.98	0.03
DDGS Handling Baghouse (EP-12)	46.9	43.98	0.05
DDGS Bulkweigher Leg Baghouse (EP-13)	46.9	43.98	0.05
DDGS Bulkweigher Baghouse (EP-14)	46.9	43.98	0.01
DDGS Transfer Bucket Elevator Baghouse (EP-24)	46.9	43.98	0.02
Protein Cooler with Dust Collector (EP-120)	12	21.67	0.92
Protein Storage with Bin Vent Filter (EP-122)	12	21.67	0.26
Protein Storage with Bin Burp Filter #1 (EP-122AF)	12	21.67	6.43E-03
Protein Storage with Bin Burp Filter #2 (EP-123AF)	12	21.67	6.43E-03
Protein Loadout with Dust Collector (EP-124)	12	21.67	0.80
Uncaptured Protein Storage and Loadout (FS07)	12	21.67	1.98E-03
SF Receiving Truck Dump Pits(SF-01)	1,120	79.06	49.39
SF Elevator(SF-02)	1,120	79.06	68.32
SF Indoor Pile(SF-03)	1,120	79.06	0.01
SF Loadout Tanks(SF-04)	280	62.22	7.00
SF Loadout Spouts (SF-05)	280	62.22	24.08

Title 129, Chapter 15, Section 001.02

PM Limitations for Combustion Sources

Total Heat Input (MMBtu/hr)	Maximum Allowable Emissions of PM (lb/MMBtu)
10 or less	0.6
Between 10 and 10,000	$1.026/I^{0.233}$ Where I = total heat input in MMBtu/hr.
10,000 or more	

Process (Emission Point)	Heat Input (MMBtu/hr)	PM Threshold (lb/MMBtu)	PM Threshold (lb/hr)	PM PTE (lb/hr)
RTO #1 (EP15)	108	0.34	37.22	10.00
RTO #2 (EP-16)	108	0.34	37.22	10.00
Utility Boiler #1 (EP-17)	92.40	0.36	33.02	0.46
Utility Boiler #2 (EP-18)	92.40	0.36	33.02	0.46
Utility Boiler #3 (EP-19)	92.40	0.36	33.02	0.46
Utility Boiler #4 (EP-20)	92.40	0.36	33.02	0.46
Emergency Generator (EP-21)	1.582	0.6	0.95	0.50
Emergency Fire Pump Engine (EP-22)	3.57	0.6	2.14	0.45
Loadout Flare Pilot (EP 23)	0.10	0.6	0.06	7.45E-04

Note: Section 001.01 only applies to the Ethanol Plant side for this permitting action