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January 17, 2025

Stephanie Haken
Environmental Specialist
Cargill Corn Milling
18049 County Road 8 East
Wahpeton, ND 58075-9700

Re: Air Quality
Title V (Renewal)
Permit to Operate

Dear Ms. Haken:

Pursuant to the Air Pollution Control Rules of the State of North Dakota, the Department of Environmental Quality has reviewed your permit application dated May 24, 2024, for Cargill Corn Milling located in Richland County, North Dakota.

Enclosed is a copy of the Department's draft/proposed Title V Permit to Operate and statement of basis for the facility. Before making final determinations on the permit application, the Department provides for public comment by means of the enclosed public notice, to be immediately followed by a 45-day Environmental Protection Agency (EPA) review period. As indicated in the notice, the 30-day public comment period will begin January 30, 2025 and end February 28, 2025.

If any changes are subsequently made to the draft permit, then a review copy of the proposed permit reflecting those changes will be provided to EPA prior to the start of a 45-day EPA review period. The 45-day EPA review period is scheduled to begin March 1, 2025 and end April 14, 2025.

All comments received will be considered in the final determination concerning issuance of the permit. The Department will take final action on the permit application following the public comment period and the EPA review period. You will be notified in writing of our final determination.

If you have any questions, please contact me at (701)328-5218 or email kkschneider@nd.gov.

Sincerely,

Kyla K. Schneider
Environmental Scientist
Division of Air Quality

KKS:er
Enc:
xc/enc: EPA Region 8, Air Permitting (email – r8airpermitting@epa.gov)

NOTICE OF INTENT TO ISSUE AN
AIR POLLUTION CONTROL
TITLE V
PERMIT TO OPERATE

Take notice that the North Dakota Department of Environmental Quality (NDDEQ) proposes to issue a renewed Air Pollution Control Permit to Operate to Cargill Corn Milling for operation of their facility in accordance with the ND Air Pollution Control Rules. Cargill Corn Milling is located at 18049 County Road 8 East, Wahpeton in Richland County, ND and processes corn into products such as corn syrups, corn gluten feed, meal and germ. The Cargill Corn Milling mailing address is 18049 County Road 8 E, Wahpeton, ND 58075. There are no changes in potential emissions.

A thirty-day public comment period for the draft permit will begin January 30, 2025 and end on February 28, 2025. Direct comments in writing to the NDDEQ, Division of Air Quality, 4201 Normandy Street 2nd Floor, Bismarck, ND 58503-1324 or email AirQuality@nd.gov, Re: Public Comment Permit No. AOP-28379 v6.0. Please note that, to be considered, comments submitted by email must be sent to the email address listed; comments sent to any other email address **will not** be considered. Comments must be received by 11:59 p.m. central time on the last day of the public comment period to be considered in the final permit determination. A public hearing regarding issuance of the permit will be held if a significant degree of public interest exists as determined by the NDDEQ. Requests for a public hearing must be received in writing by the NDDEQ before the end of the public comment period.

The notice, draft permit, statement of basis and application are available for review at the NDDEQ address and at the Division of Air Quality website at https://deq.nd.gov/AQ/PublicCom.aspx. A copy of these documents may be obtained by writing to the Division of Air Quality or contacting Kyla Schneider at (701)328-5218 or emailing kkschneider@nd.gov.

The NDDEQ will consider every request for reasonable accommodation to provide an accessible meeting facility or other accommodation for people with disabilities, language interpretation for people with limited English proficiency (LEP), and translations of written material necessary to access programs and information. Language assistance services are available free of charge to you. To request accommodations or language assistance, contact the NDDEQ Non-discrimination/EJ Coordinator at 701-328-5150 or deqEJ@nd.gov. TTY users may use Relay North Dakota at 711 or 1-800-366-6888.

Dated this 15th day of January 2025

James L. Semerad
Director
Division of Air Quality

Cargill Corn Milling
Title V Permit to Operate AOP-28379 v6.0
(Previously T5-G98001)
Statement of Basis
(9/5/24)

Facility Background: The Cargill Corn Milling facility is designed to process 95,000 bushels of corn per day into multiple products, including 42% and 55% high fructose corn syrups, corn gluten feed, corn gluten meal, and corn germ. Major sources of emissions at the facility include grain unloading controlled by a baghouse, steep, millhouse, and feedhouse tanks all controlled by caustic scrubbers, and a gluten dryer controlled by a scrubber. Additional major sources include a fiber pellet cooler controlled by a cyclone, a carbon regeneration furnace controlled by a caustic scrubber and afterburner, a 245 x 10^6 Btu/hr main, natural gas-fired boiler, a wastewater flare, a fiber and pellet bin controlled by a baghouse, a fiber cooler controlled by a cyclone, and a natural gas standby boiler rated at 191 x 10^6 Btu/hr.

Chronology of significant events (not all-inclusive):

June 2, 1995 - Initial construction permit was issued (PTC 6/2/95) and was amended in 1996 (PTC 5/29/96) and then again in 1997 (PTC 2/26/97 and PTC 11/20/97).

December 4, 1996 - Operations officially began and responsibility was transferred from Pro Gold Limited Liability Company to Cargill Corn Milling.

March 29, 1999 - Initial Title V Permit to Operate (PTO) No. T5-G98001 was issued and revised twice prior to first renewal.

May 2, 2000 - PTC00001 was issued; allowed adjustments to the emissions limits and operational changes.

January 6, 2005 - Title V PTO T5-G98001 was renewed (AOP-28379 v2.0).

April 14, 2009 - PTC09009 (ACP-18101 v1.0) was issued; encompassed VOC and HAP emission limits and operational restrictions for the facility as required by the Consent Decree (CD) with U.S. EPA dated March 3, 2006; continued monitoring, recordkeeping and reporting was not included in the CD/PTC.

December 11, 2009 - Renewal No. 2 of the Title V permit was issued (AOP-28379 v3.0).

December 16, 2009 - PTC09038 (ACP-17238 v1.0) was issued; temporarily revised the CO emission limit applicable to the thermal oxidizer (stack) and gluten dryer and combine CO emission limits from existing emission units. This construction permit was never incorporated into the Title V permit because the emission limit changes were temporary.

February 10, 2012 - Revision No. 1 of Renewal No. 2 of the Title V permit was issued (AOP-28379 v3.1); removed oil as a fuel for the main boiler (EU UEP53).

July 11, 2012 - Revision No. 2 of Renewal No. 2 of the Title V permit was issued (AOP-28379 v3.2); administrative amendment to correctly summarize CAM Plan indicators within the body of the permit.

April 12, 2011 - PTC11030 (ACP-17327 v1.0) was issued; installation of a thermal oxidizer dump stack and a germ dryer dump stack.

June 20, 2013 - PTC13046 (ACP-17542 v1.0) was issued; revised emission limits for the thermal oxidizer and gluten dryer.

March 26, 2015 - Renewal No. 3, Revision No. 0 of the Title V permit was issued (AOP-28379 v4.0); incorporated ACP-17327 v1.0 and ACP-17542 v1.0.

September 20, 2019 - PTC09009 Amendment No. 1 (ACP-17209 v1.0) was issued to rescind the initial VOC and HAP emission limits established in the original construction permit (ACP-18101 v1.0) for the feedhouse tanks (EU FEP18/EP FEP18), slightly increasing the HAPs limit from 0.256 lb/hr to 0.26 lb/hr, and reestablish the VOC emission limit for that unit.

February 6, 2020 - Renewal No. 4, Revision No. 0 of the Title V permit was issued (AOP-28379 v5.0); incorporated ACP-17209 v1.0, emission units not requiring PTCs were added (emergency fire pump, EU UEP87; two sodium hypochlorite storage tanks, EU REP50 and REP51, and boiler replacement, EU UEP84) and the CAM Plan was updated.

Current Action: On May 24, 2024, the Department received a timely application dated May 24, 2024, from Cargill Corn Milling for renewal of the facility's Title V Permit to Operate No. AOP-28379. The draft permit incorporates changes that are predominantly administrative in nature, which include but are not limited to emission unit description clarification, applicable regulation clarification, monitoring recordkeeping and reporting clarifications, updates to the Appendix A PEMS based on October/November 2023 stack testing and updates to Appendix B.

The Department proposes to issue Title V Permit to Operate No. AOP-28379 v6.0 after the required 30-day public comment period and subsequent 45-day EPA review period of the draft permit. This statement of basis summarizes the relevant information considered during the issuance of the Title V permit. The legal basis for each permit condition is stated in the draft permit under the heading of "Applicable Requirement."

Applicable Programs/As-Needed Topics:

1. **Title V.** The facility requires a Title V Permit to Operate because potential annual emissions of PM_{10}, SO_2, NO_x, CO and VOC exceed the 100 tons per year (tpy) major source threshold. The facility is considered a minor/area source of Hazardous Air Pollutant (HAP) emissions because individual and combined potential annual HAP emissions are below 10 tpy and 25 tpy, respectively.

2. **New Source Performance Standards (NSPS).** The following NDAC 33.1-15-12-03 and 40 CFR 60 subparts apply to the facility.

Subpart A, General Provisions, applies to all source units to which another NSPS subpart applies.

Subpart Db, Standards of Performance Industrial-Commercial-Institutional Steam Generating Units (applies to the main boiler (EU UEP53) is because it was constructed after June 19, 1984, and it has a heat input rating greater than 100 million Btu per hour).

3. **National Emission Standards for Hazardous Air Pollutants (NESHAP).** No NDAC 33.1-15-13 and 40 CFR 61 subparts apply to the facility, with the possible exception of NDAC 33.1-15-13-02 (40 CFR 61), Subpart M (National Emission Standard for Asbestos) may apply during facility modifications involving asbestos.

4. **NESHAP (MACT).** The following NDAC 33.1-15-22-03 and 40 CFR 63 subpart applies to the facility, which is an area source of HAP emissions.

Subpart A, General Provisions, applies to all source units to which another NESHAP (MACT) subpart applies.

Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, applies to the emergency generator engine (EU UEP78) and emergency fire pump engine (EU UEP87). The North Dakota Department of Environmental Quality has not adopted the area source provisions of this subpart; all required reports and documentation are to be sent to EPA Region 8.

The two boilers (EU UEP53 and EU UEP85) are not subject to Subpart JJJJJJ, National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources, as long as they are considered "gas-fired boilers" in accordance with Subpart JJJJJJ.

5. **Acid Rain.** NDAC 33.1-15-21 (40 CFR 72, 73, 75 and 76) does not apply since the facility is not an electric utility steam generating plant rated at greater than 25 MWe.

6. **Prevention of Significant Deterioration (PSD).** The facility is considered minor for PSD under NDAC 33.1-15-15 (40 CFR 52.21) because it is not one of the 28 listed source categories and does not have the potential to emit more than 250 tons of a designated pollutant during normal operations. There are no changes contained in this permit that increase potential emissions by a PSD-significant amount. Therefore, this draft permit is not subject to PSD review.

7. **Best Available Control Technology (BACT).** Since the facility is not a major PSD source and the permit does not contain changes that increase potential emissions by a PSD-significant amount, a BACT review is not required for this draft permit.

8. **Gap Filling.** The permit does contain gap filling for testing, monitoring or recordkeeping not otherwise required by rule. Gap filling for monitoring is generally identified by the applicable requirement NDAC 33.1-15-14-06.5.a(3)(a).

9. **Streamlining Decisions.** The NDAC 33.1-15-06-01.2 Restrictions applicable to fuel burning installations emission limit for sulfur (3.0 pounds sulfur per million Btu) was streamlined because the standard ND natural gas fuel restriction for sulfur (2 grains per 100 scf) is more stringent. No changes to streamlining were involved with this draft permit.

10. **Compliance Assurance Monitoring (CAM).** CAM applies to the following emission units: CEP1 (grain unloading), MEP12 (steep tanks), MEP13 (millhouse tanks), FEP18 (feedhouse tanks), FEP26 (fiber pellet cooler) and FEP80 (fiber bin and pellet bin). There were no updates to the CAM.

11. **Permit Shield.** Does not apply because the draft permit does not contain a permit shield.

12. **New Conditions/Limits.** No new conditions and limits were addressed in the draft permit. Specific changes are addressed in the permit changes by section discussed below.

13. **40 CFR 98 - Mandatory Greenhouse Gas Reporting.** This rule requires sources above certain emission thresholds or in certain supplier thresholds to calculate, monitor, and report greenhouse gas emissions. According to the definition of "applicable requirement" in 40 CFR 70.2, neither Subpart 98, nor Clean Air Act Section 307(d)(1)(V), the CAA authority under which Subpart 98 was promulgated, are listed as applicable requirements for the purpose of Title V permitting. Although the rule is not an applicable requirement under 40 CFR 70, the source is not relieved from the requirement to comply with the rule separately from compliance with their Part 70 operating permit. It is the responsibility of each source to determine applicability to the subpart and to comply, if necessary.

Permit Changes by Section:

Note: Administrative changes were made to some sections of the permit to update to the current North Dakota (ND) format and to correct errors. In addition, the Permit to Operate number and references to Permit to Construct numbers have been updated to accommodate the Air Quality database (CERIS-ND). These changes may not be specifically addressed below.

Cover: the permit number was revised to coincide with CERIS-ND and the expiration date and renewal was updated.

Table of Contents: Condition headings and page numbers were updated as necessary.

1. **Emission Unit Identification**: The "germ water cooler" description was updated to "germ fluidized dryer (old)" (EU FEP77) and the "fiber cooler" description was updated to "germ rotary water dryer (new)" cooler (EU FEP81). Those descriptions were updated throughout the rest of the draft permit. Several emission unit descriptions were updated for clarity and to conform with standard formatting.

2. **Applicable Standards, Restrictions and Miscellaneous Requirements (Fuel Restrictions** (previously Condition No. 2 and 3): The fuel restrictions were combined here with the applicable standards and miscellaneous requirements from the previous permit. The applicable standards were updated to the current ND standard text and formatting.

3. **Emission Unit Limits** (previously Condition No. 4): Applicable requirement construction permit numbers were updated to coincide with CERIS-ND. The total heat input condition (previously subsection B) was added to the table (Table 3.1). The opacity limits were added to the table, removing subsections C, D and E of this section. The HCl limits for EU REP48a, REP48b and REP49 were added to the table and removing subsection F; the emission limits are federally enforceable (not state enforceable only) since they went through a 30-day public comment concurrent with an EPA review. Footnote C was added for the consent decree emission limits.

4. **Monitoring Requirements and Conditions** (previously Condition No. 5): Applicable requirement construction permit numbers were updated to coincide with CERIS-ND. Visual emissions observations monitoring was updated to be consistent with the current ND standard. CO monitoring for EU REP41 was updated for clarification (no additional testing required, unless directed by the Department).

5. **Recordkeeping Requirements** (previously Condition No. 6): The compliance monitoring record column information was updated for clarification, but no new recordkeeping was added. CO recordkeeping for EU REP41 was updated for clarification.

6. **Reporting** (previously Condition No. 7): No change.

7. **Facility Wide Operating Conditions** (previously Condition No. 8): The Noncompliance Due to an Emergency condition (previously Condition No. 7.H) was removed per EPA's Affirmative Defense Provision Rule effective 8/21/23 and to reflect the current ND standard facility wide operating conditions. All subsequent condition lettering designation was updated.

8. **General Conditions** (previously Condition No. 9): Conditions 8.E, F, G, I and M were revised to reflect the current ND general conditions.

9. **State Enforceable Only Conditions (not Federally enforceable)** (previously Condition No. 10): No change.

Attachment A (NO_x Alternative Monitoring Plan): Administrative changes updates were made based on October/November 2023 emissions testing.

Attachment B (CAM): Administrative changes were made updating the Title V and PTC numbers to coincide with CERIS-ND and clarify visual emissions observations training per ND standard.

Comments/Recommendations: It is recommended that Title V Permit to Operate AOP-28379 v6.0 be processed and be considered for issuance following a 30-day public comment period and a subsequent 45-day EPA review period.

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AIR POLLUTION CONTROL TITLE V PERMIT TO OPERATE

Permittee: **Name:** Cargill Corn Milling **Address:** 18049 County Road 8 E Wahpeton, ND 58075	**Permit Number:** AOP-28379 v6.0 **Source Name:** Cargill Corn Milling
Source Location: 18049 County Road 8 E Wahpeton, ND NW ¼, SE ¼, Sec. 7, T133N, R47W Richland County	**Source Type:** Corn Wet Milling
Expiration Date: January 6, 2030	

Pursuant to Chapter 23.1-06 of the North Dakota Century Code (NDCC), and the Air Pollution Control Rules of the State of North Dakota, Article 33.1-15 of the North Dakota Administrative Code (NDAC), and in reliance on statements and representations heretofore made by the permittee (i.e., owner) designated above, a Title V Permit to Operate is hereby issued authorizing such permittee to operate the emissions units at the location designated above. This Title V Permit to Operate is subject to all applicable rules and orders now or hereafter in effect of the North Dakota Department of Environmental Quality (Department) and to any conditions specified on the following pages. All conditions are enforceable by EPA and citizens under the Clean Air Act unless otherwise noted.

Renewal: TBD

James L. Semerad
Director
Division of Air Quality

Cargill Corn Milling
Title V Permit to Operate
Table of Contents

1. **Emission Unit Identification:**

A. The emission units regulated by this permit are as follows:

Table 1.1 Emission Unit Identification

Emission Unit Description	Emission Unit (EU)	Emission Point (EP)	Air Pollution Control Equipment
Grain unloading	CEP1	CEP1	Baghouse
Corn silos	CEP2 [A]	CEP2	Baghouse
Grain unloading (corn cleaner)	MEP10 [A]	MEP10	Baghouse
Corn silo (fines)	FEP11 [A]	FEP11	Vent Filter
Steep tanks	MEP12	MEP12	Caustic Scrubber
Millhouse tanks	MEP13	MEP13	Caustic Scrubber
Feedhouse tanks	FEP18	FEP18	Caustic Scrubber
23 x 10^6 Btu/hr thermal oxidizer (TO) (stack)	FEP20	FEP20	None
		DS1 [A, C] & DS2 [A, C]	None
Gluten dryer	FEP21	FEP21	Scrubber
Grain cleanings transfer	FEP22 [A]	FEP22	Baghouse
Fiber pellet cooler	FEP26	FEP26	Cyclone
Germ handling	FEP27 [A]	FEP27	Baghouse
Gluten handling	FEP28 [A]	FEP28	Baghouse
Germ storage bin	FEP29 [A]	FEP29	Vent Filter
Gluten meal system	FEP30 [A]	FEP30	Vent Filter
Feed loading	FEP32 [A]	FEP32	Dust Control System
Dextrose precoat make-up tank	REP38 [A]	REP38	Baghouse
Check precoat make-up tank	REP39 [A]	REP39	Baghouse
Carbon regeneration furnace	REP41	REP41	Caustic Scrubber & Afterburner
Two hydrochloric acid (HCl) storage tanks 23,691 gallons each	REP48a [A] & REP48b [A]	REP48a [A] & REP48b [A]	Scrubber
3,000-gallon chemical storage tank	REP49 [A]	REP49	Scrubber
Two 12.5% sodium hypochlorite storage tanks: 3,000 gallons (water plant) & 5,000 gallons (near cooling towers)	REP50 [A] & REP51 [A]	REP50 & REP51	None
Natural gas-fired main boiler rated at 245 x 10^6 Btu/hr (constructed post 6/19/84) (NSPS Db)	UEP53	UEP53	None
Wastewater flare	WEP56	WEP56	None
Filter aid silo	IEP58 [A]	IEP58	Baghouse
Lime storage silo	IEP61 [A]	IEP61	Baghouse
Soda ash storage silo	WEP71 [A]	WEP71	Baghouse
Feed loading	FEP75 [A]	FEP75	Dust Control System

Emission Unit Description	Emission Unit (EU)	Emission Point (EP)	Air Pollution Control Equipment
Germ fluidized dryer (old)	FEP77	FEP77	Cyclone
Diesel engine-driven emergency generator rated at 308 bhp (nominal) (pre-2006) (NESHAP/MACT ZZZZ)	UEP78 [A, B]	UEP78	None
Fiber bin and pellet bin	FEP80	FEP80	Baghouse
Germ rotary water dryer (new)	FEP81	FEP81	Cyclone
Corn fines/cracks transfer	FEP82 [A]	FEP82	Baghouse
Ground fiber bin	FEP83 [A]	FEP83	Vent Filter
Natural gas-fired utility building heater rated at 8.1 x 10^6 Btu/hr (nominal) (2017)	UEP84 [A]	UEP84	None
Natural gas-fired standby boiler rated at 191.4 x 10^6 Btu/hr (constructed 1977) (NSPS Db)	UEP85	UEP85	None
Corn cleaner and weigh belt vacuum system dust collector	IEP86 [A]	IEP86	Dust Control System
Diesel-fired emergency fire pump engine rated at 125 bhp (manuf. August 1999) (NESHAP/MACT ZZZZ)	UEP87 [A, B]	UEP87	None

[A] Insignificant or fugitive emission sources (no specific emission limit).

[B] DS1 (germ dryer dump stack) and DS2 [thermal oxidizer (TO) dump stack] are safety devices used in the process of purging burners prior to ignition.

[C] The potential to emit for an emergency stationary reciprocating internal combustion engine (RICE) is based on operating no more hours per year than is allowed by the subpart (40 CFR 63, Subpart ZZZZ) for other than emergency situations. For engines to be considered emergency stationary RICE under the RICE rules, engine operations must comply with the operating hour limits as specified in the applicable subpart. There is no time limit on the use of emergency stationary RICE in emergency situations [40 CFR 63, Subpart ZZZZ, §63.6640(f)].

B. Additional Fugitive Emissions Sources:

1) Mill/feed cooling tower

2) Refinery cooling tower

3) Sulfur dioxide (leaks) valves and piping

4) Wastewater plant (tanks, sequencing batch reactors and ponds)

2. **Applicable Standards, Restrictions and Miscellaneous Conditions**:

A. **Fuel Restrictions**:

1) The main boiler, EU UEP53, is restricted to combusting only pipeline quality natural gas containing no more than 2 grains of sulfur per 100 scf.

2) The carbon regeneration furnace EU REP41, utility building heater EU UEP84 and the standby boiler EU UEP85 are restricted to combusting only pipeline quality natural gas containing no more than 2 grains of sulfur per 100 scf.

3) The wastewater flare EU WEP56 shall only be used to combust biogas (approximately 65% methane and 35% carbon dioxide with traces of H_2S and H_2O).

4) The thermal oxidizer EU FEP20 is restricted to combusting only pipeline quality natural gas containing no more than 2 grains of sulfur per 100 scf or biogas.

5) The emergency engines, EU UEP78 and UEP87 are restricted to combusting only distillate oil containing no more than 0.0015 percent sulfur by weight [§63.6604(b)].

Applicable Requirements: NDAC 33.1-15-14-02.9.f, NDAC 33.1-15-14-06.5.b(1), NDAC 33.1-15-06-01.2 and 40 CFR 63, Subpart ZZZZ

B. **New Source Performance Standards (NSPS)**: The permittee shall comply with all applicable requirements of the following NDAC 33.1-15-12-02 and 40 CFR 60 subparts in addition to complying with Subpart A - General Provisions.

1) Subpart Db - Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units (EU UEP53 and UEP85).

Applicable Requirements: NDAC 33.1-15-12-02, Subparts A and Db

C. **National Emission Standards for Hazardous Air Pollutants (NESHAP)/Maximum Achievable Control Technology (MACT)**: The permittee shall comply with all applicable requirements of the following NDAC 33.1-15-22-03 and 40 CFR 63 subparts in addition to complying with Subpart A - General Provisions.

1) Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (EU UEP78 and UEP87). The North Dakota Department of Environmental Quality has not adopted the area source provisions of this subpart. All required documentation must be submitted to EPA at the following address.

U.S. EPA Region 8
1595 Wynkoop Street
Mail Code 8ENF-AT
Denver, CO 80202-1129

Applicable Requirements: 40 CFR 63, Subparts A and ZZZZ

D. **Dump Stack Operation (EP DS1 and DS2):**

1) The dump stacks (EP DS1 and DS2) shall only be operated when necessary to purge the associated burners or during a malfunction at the facility that necessitates operation of the dump stacks.

2) A record shall be maintained of each instance when a dump stack is operated. The record shall include the date and time of dump stack operation and the reason the dump stack was operated. Records shall be maintained for a period of 5 years.

Applicable Requirement: ACP-17327 v1.0

E. **Like-Kind Engine Replacement:** This permit allows the permittee to replace the existing engine(s) with a like-kind engine. Replacement is subject to the following conditions.

1) The Department must be notified within 10 days after change-out of the engine.

2) The replacement engine shall operate in the same manner, provide no increase in throughput and have equal or less emissions than the engine it is replacing.

3) The date of manufacture of the replacement engine must be included in the notification. The facility must comply with any applicable federal standards (e.g. NSPS, NESHAP, MACT) triggered by the replacement.

4) The replacement engine is subject to the same state emission limits as the existing engine in addition to any NSPS or MACT emission limit that is applicable.

Applicable Requirement: NDAC 33.1-15-14-06.5.b(1)

3. **Emission Unit Limits:**

A. The emissions of air contaminants and parameter limits from the emission units shall not exceed the following limits.

Table 3.1 Emission Unit Limits

Emission Unit Description	EU	EP	Pollutant/ Parameter	Emission/Parameter Limit [A]	NDAC Applicable Requirement
Grain unloading	CEP1	CEP1	PM	1.22 lb/hr	PTC 2/26/97
			PM_{10}	0.586 lb/hr	PTC 2/26/97
			Opacity	20% [B]	33.1-15-03-02

Emission Unit Description	EU	EP	Pollutant/ Parameter	Emission/Parameter Limit [A]	NDAC Applicable Requirement
Corn silos	CEP2	CEP2	PM	0.309 lb/hr	PTC 2/26/97
			PM_{10}	0.148 lb/hr	PTC 2/26/97
			Opacity	20% [B]	33.1-15-03-02
Grain unloading (corn cleaner)	MEP10	MEP10	PM	0.189 lb/hr	PTC 2/26/97
			PM_{10}	0.174 lb/hr	PTC 2/26/97
			Opacity	20% [B]	33.1-15-03-02
Corn silo (fines tank)	FEP11	FEP11	PM	0.030 lb/hr	PTC 2/26/97
			PM_{10}	0.014 lb/hr	PTC 2/26/97
			Opacity	20% [B]	33.1-15-03-02
Steep tanks	MEP12	MEP12	SO_2	0.101 lb/hr	PTC 2/26/97
			VOC	16.65 lb/hr [C]	ACP-18101 v1.0 (CD)
			HAP	0.23 lb/hr [C]	ACP-18101 v1.0 (CD)
			Opacity	20% [B]	33.1-15-03-02
Millhouse tanks	MEP13	MEP13	SO_2	0.096 lb/hr	PTC 2/26/97
			VOC	8.1 lb/hr [C]	ACP-18101 v1.0 (CD)
			HAP	0.25 lb/hr [C]	ACP-18101 v1.0 (CD)
			Opacity	20% [B]	33.1-15-03-02
Feedhouse tanks	FEP18	FEP18	SO_2	0.096 lb/hr	PTC 2/26/97
			VOC	8.1 lb/hr [C]	ACP-17209 v1.0 (CD)
			HAP	0.26 lb/hr [C]	ACP-17209 v1.0 (CD)
			Opacity	20% [B]	33.1-15-03-02

Emission Unit Description	EU	EP	Pollutant/ Parameter	Emission/Parameter Limit [A]	NDAC Applicable Requirement
TO (stack) & gluten dryer	FEP20 & FEP21	FEP20 & FEP21	PM	2.60 lb/hr [D]	PTC00001
			PM_{10}	2.60 lb/hr [D]	PTC00001
			SO_2	20.0 lb/hr [D] & 40.03 lb/hr [D, E]	PTC00001
			NO_x	9.32 lb/hr [D]	PTC00001
			CO	28.0 lb/hr [D]	PTC00001
			Opacity	20% [B] (each stack; includes EP DS1 & DS2)	33.1-15-03-02 & ACP-17327 v1.0
			TO temperature (EU FEP20)	≥ 1350°F (3-hr avg) [C, F]	ACP-18101 v1.0 (CD) & October 2020 Compliance Stack Test
			Scrubber flow (EU FEP 1)	≥ 100 gpm (3-hr avg) [C]	ACP-18101 v1.0 (CD)
			Scrubber pH (EU FEP21)	≥ 3 (daily avg) [C]	ACP-18101 v1.0 (CD)
			Scrubber pressure drop (EU FEP21)	≥ 4 in H_2O (daily avg) [C]	ACP-18101 v1.0 (CD)
			Gluten Dryer VOC (EU FEP21)	13.0 lb/hr [C, D]	ACP-17542 1v.0 (CD)
			Gluten Dryer HAP (EU FEP21)	1.67 lb/hr [C, D]	ACP-17542 v1.0 (CD)
Grain cleanings transfer	FEP22	FEP22	PM	0.063 lb/hr	PTC 2/26/97
			PM_{10}	0.058 lb/hr	PTC 2/26/97
			Opacity	20% [B]	33.1-15-03-02

Emission Unit Description	EU	EP	Pollutant/ Parameter	Emission/Parameter Limit [A]	NDAC Applicable Requirement
Fiber pellet cooler	FEP26	FEP26	PM	9.00 lb/hr	PTC 2/26/97
			PM_{10}	6.93 lb/hr	PTC 2/26/97
			VOC	3.89 lb/hr [C]	ACP-18101 v1.0 (CD)
			HAP	0.97 lb/hr [C]	ACP-18101 v1.0 (CD)
			Opacity	20% [B]	33.1-15-03-02
Germ handling	FEP27	FEP27	PM	0.192 lb/hr	PTC 2/26/97
			PM_{10}	0.177 lb/hr	PTC 2/26/97
			Opacity	20% [B]	33.1-15-03-02
Gluten handling	FEP28	FEP28	PM	0.111 lb/hr	PTC 2/26/97
			PM_{10}	0.102 lb/hr	PTC 2/26/97
			Opacity	20% [B]	33.1-15-03-02
Germ storage bin	FEP29	FEP29	PM	0.009 lb/hr	PTC 2/26/97
			PM_{10}	0.008 lb/hr	PTC 2/26/97
			Opacity	20% [B]	33.1-15-03-02
Gluten meal system	FEP30	FEP30	PM	0.009 lb/hr	PTC 2/26/97
			PM_{10}	0.008 lb/hr	PTC 2/26/97
			Opacity	20% [B]	33.1-15-03-02
Feed loading	FEP32	FEP32	PM	0.309 lb/hr	PTC 2/26/97
			PM_{10}	0.284 lb/hr	PTC 2/26/97
			Opacity	20% [B]	33.1-15-03-02
Dextrose precoat make-up tank	REP38	REP38	PM	0.078 lb/hr	PTC 2/26/97
			PM_{10}	0.078 lb/hr	PTC 2/26/97
			Opacity	20% [B]	33.1-15-03-02

Emission Unit Description	EU	EP	Pollutant/ Parameter	Emission/Parameter Limit [A]	NDAC Applicable Requirement
Check precoat make-up tank	REP39	REP39	PM	0.078 lb/hr	PTC 2/26/97
			PM_{10}	0.078 lb/hr	PTC 2/26/97
			Opacity	20% [B]	33.1-15-03-02
Carbon regeneration furnace	REP41	REP41	PM	1.05 lb/hr	PTC 2/26/97
			PM_{10}	1.05 lb/hr	PTC 2/26/97
			SO_2	2.0 lb/hr	PTC00001
			NO_x	10.0 lb/hr	PTC00001
			CO	15.0 lb/hr	PTC00001
			VOC	2.03 lb/hr [C]	ACP-18101 v1.0 (CD)
			HAP	0.45 lb/hr [C]	ACP-18101 v1.0 (CD)
			Temperature	≥ 1446° F [C] (3-hour avg)	ACP-18101 v1.0 (CD)
			Opacity	20% [B]	33.1-15-03-02
Hydrochloric acid (HCl) storage tanks	REP48a & REP48b	REP48a & REP48b	HCl	0.005 lb/hr total (1-hr avg)	PTC 6/2/95
Chemical storage tank	REP49	REP49	HCl	0.005 lb/hr (1-hr avg)	PTC 5/29/96
			SO_2	0.250 lb/hr	PTC 2/26/97

Emission Unit Description	EU	EP	Pollutant/ Parameter	Emission/Parameter Limit [A]	NDAC Applicable Requirement
Main boiler	UEP53	UEP53	PM	0.39 lb/10^6 Btu & 1.23 lb/hr	33.1-15-05 & PTC00001
			PM_{10}	1.23 lb/hr	PTC 2/26/97
			SO_2	3 lb/10^6 Btu & 0.49 lb/hr	33.1-15-06 & PTC 6/2/95
			NO_x	17.15 lb/hr & 0.2 lb/10^6 Btu (30-day rolling avg)	PTC 2/26/97 & 33.1-15-12, Subpart Db
			CO	8.0 lb/hr (24-hour rolling avg) & 24.0 lb/hr	PTC00001
			VOC	1.32 lb/hr [C]	ACP-18101 v1.0 (CD)
			HAP	0.45 lb/hr [C]	ACP-18101 v1.0 (CD)
			Opacity	20% [B, G]	33.1-15-12, Subpart Db & 33.1-15-03-02
			Fuel Flow	[H]	PTC 2/26/97
Wastewater flare	WEP56	WEP56	PM	0.121 lb/hr	PTC 2/26/97
			PM_{10}	0.121 lb/hr	PTC 2/26/97
			SO_2	20.03 lb/hr	PTC 2/26/97
			NO_x	0.685 lb/hr	PTC 2/26/97
			CO	3.73 lb/hr	PTC 6/2/95
			Opacity	20% [I]	33.1-15-03-03.1
Filter aid silo	IEP58	IEP58	PM	0.064 lb/hr	PTC 2/26/97
			PM_{10}	0.064 lb/hr	PTC 2/26/97
			Opacity	20% [B]	33.1-15-03-02

Emission Unit Description	EU	EP	Pollutant/ Parameter	Emission/Parameter Limit [A]	NDAC Applicable Requirement
Lime storage silo	IEP61	IEP61	PM	0.161 lb/hr	PTC 2/26/97
			PM_{10}	0.156 lb/hr	PTC 2/26/97
			Opacity	20% [B]	33.1-15-03-02
Soda ash storage silo	WEP71	WEP71	PM	0.161 lb/hr	PTC 2/26/97
			PM_{10}	0.156 lb/hr	PTC 2/26/97
			Opacity	20% [B]	33.1-15-03-02
Feed loading	FEP75	FEP75	PM	0.309 lb/hr	PTC 2/26/97
			PM_{10}	0.284 lb/hr	PTC 2/26/97
			Opacity	20% [B]	33.1-15-03-02
Germ fluidized dryer (old)	FEP77	FEP77	PM	1.50 lb/hr	PTC 2/26/97
			PM_{10}	1.50 lb/hr	PTC 2/26/97
			VOC	1.67 lb/hr [C]	ACP-18101 v1.0 (CD)
			HAP	0.42 lb/hr [C]	ACP-18101 v1.0 (CD)
			Opacity	20% [B]	33.1-15-03-02
Diesel engine-driven emergency generator	UEP78	UEP78	Opacity	20% [B]	33.1-15-03-02
			Operating Hours	See Condition 1, Footnote B	40 CFR 63, Subpart ZZZZ
Fiber bin and pellet bin	FEP80	FEP80	PM	1.03 lb/hr	PTC 2/26/97
			PM_{10}	0.948 lb/hr	PTC 2/26/97
			VOC	1.51 lb/hr [C]	ACP-18101 v1.0 (CD)
			HAP	0.38 lb/hr [C]	ACP-18101 v1.0 (CD)
			Opacity	20% [B]	33.1-15-03-02

Emission Unit Description	EU	EP	Pollutant/ Parameter	Emission/Parameter Limit [A]	NDAC Applicable Requirement
Germ rotary water dryer (new)	FEP81	FEP81	PM	0.771 lb/hr	PTC 2/26/97
			PM_{10}	0.594 lb/hr	PTC 2/26/97
			VOC	0.4 lb/hr [C]	ACP-18101 v1.0 (CD)
			HAP	0.1 lb/hr [C]	ACP-18101 v1.0 (CD)
			Opacity	20% [B]	33.1-15-03-02
Corn fines/cracks transfer	FEP82	FEP82	PM	0.103 lb/hr	PTC 2/26/97
			PM_{10}	0.095 lb/hr	PTC 2/26/97
			Opacity	20% [B]	33.1-15-03-02
Ground fiber bin	FEP83	FEP83	PM	0.009 lb/hr	PTC 2/26/97
			PM_{10}	0.008 lb/hr	PTC 2/26/97
			Opacity	20% [B]	33.1-15-03-02
Utility building heater	UEP84	UEP84	PM	0.021 lb/hr	PTC 2/26/97
			PM_{10}	0.021 lb/hr	PTC 2/26/97
			SO_2	0.004 lb/hr	PTC 2/26/97
			NO_x	0.300 lb/hr	PTC 2/26/97
			CO	0.143 lb/hr	PTC 2/26/97
			Opacity	20% [B]	33.1-15-03-02

Emission Unit Description	EU	EP	Pollutant/ Parameter	Emission/Parameter Limit [A]	NDAC Applicable Requirement
Standby boiler	UEP85	UEP85	PM	0.57 lb/hr	PTC 2/26/97
			PM_{10}	0.57 lb/hr	PTC 2/26/97
			SO_2	0.11 lb/hr	PTC 2/26/97
			NO_x	53.6 lb/hr	PTC00001
			CO	7.66 lb/hr	PTC 2/26/97
			VOC	1.03 lb/hr [C]	ACP-18101 v1.0 (CD)
			HAP	0.35 lb/hr [C]	ACP-18101 v1.0 (CD)
			Opacity	20% [B]	33.1-15-03-02
			Operating Hours	1,800 hours (12-month rolling total)	PTC 2/26/97
			Fuel Flow	[H]	PTC 2/26/97
Diesel-fired emergency fire pump engine	UEP87	UEP87	Opacity	See Cond. 4.C	33.1-15-03-02
			Operating Hours	See Condition 1, Footnote B	40 CFR 63, Subpart ZZZZ

A Emission limits are based on a 1-hour average, unless otherwise noted.

B 40% opacity (six-minute average) is permissible for not more than one six-minute period per hour; applies at all times.

C Emission limits established by ACP-17542 v1.0 and ACP-18101 v1.0 were implemented by a Consent Decree (CD) with EPA dated March 3, 2006 (Case Number 05-CV-02037-JMR-FLN). All requirements of the CD have been fulfilled with no additional monitoring, recordkeeping or reporting required, unless otherwise provided in Condition 4 and indicating the NDAC Applicable Requirement of ACP-18101 v1.0.

D FEP20 & FEP21 combined

E When biogas from the wastewater flare (EU WEP56) is being routed as fuel to the thermal oxidizer.

F In the event that the fiber pellet production resumes, the TO temperature limit is ≥1425° F; compliance stack testing on the TO and Gluten Flash Dryer (EU FEP 20 &21) is required within 180 days of startup of the dry feed system.

G 27% opacity (six-minute average) is permissible for not more than one six-minute period per hour; does not apply during startup, shutdown and malfunction. See [B] for startup, shutdown and malfunction.

H The total heat input for the 191.4 x 10^6 Btu/hr standby boiler (EU UEP85) and the 245 x 10^6 Btu/hr boiler (EU UEP53) as determined by the fuel flow to each boiler, shall not exceed 245 x 10^6 Btu/hr combined.

I 60% opacity (six-minute average) is permissible for not more than one six-minute period per hour; applies at all times.

4. **Monitoring Requirements and Conditions:**

A. **Requirements:**

Table 4.1 Emission Monitoring

Emission Unit Description	EU	Pollutant/ Parameter	Monitoring Requirement (Method)	Condition Number	NDAC Applicable Requirement
Grain unloading	CEP1	PM/PM_{10}/ Opacity	CAM	4.B.14	33.1-15-14-06.10
Steep tanks	MEP12	SO_2/Opacity	CAM	4.B.14	33.1-15-14-06.10
Millhouse tanks	MEP13	SO_2/Opacity	CAM	4.B.14	33.1-15-14-06.10
Feedhouse tanks	FEP18	SO_2/Opacity	CAM	4.B.14	33.1-15-14-06.10
Thermal oxidizer	FEP20	PM/PM_{10}/ Opacity	Recordkeeping	4.B.9	33.1-15-14-06.5.a(3)(a)
		SO_2	Recordkeeping	4.B.9	33.1-15-14-06.5.a(3)(a)
		NO_x	Emissions Test	4.B.7	33.1-15-14-06.5.a(3)(a)
		CO	Emissions Test	4.B.7	33.1-15-14-06.5.a(3)(a)
		Temperature	Recordkeeping	4.B.15	ACP-18101 v1.0
Gluten dryer	FEP21	PM/PM_{10}/ Opacity	Recordkeeping	4.B.9	ACP-18101 v1.0
		SO_2	Recordkeeping	4.B.9	33.1-15-14-06.5.a(3)(a)
		NO_x	Emissions Test	4.B.7	33.1-15-14-06.5.a(3)(a)
		CO	Emissions Test	4.B.7	33.1-15-14-06.5.a(3)(a)
		VOC	Recordkeeping	4.B.15	33.1-15-14-06.5.a(3)(a)
		HAP	Recordkeeping	4.B.15	ACP-18101 v1.0
		Scrubber flow, pH & scrubber pressure drop	Recordkeeping	4.B.15	ACP-18101 v1.0
Fiber pellet cooler	FEP26	PM/PM_{10}/ Opacity	CAM	4.B.14	33.1-15-14-06.10

Emission Unit Description	EU	Pollutant/ Parameter	Monitoring Requirement (Method)	Condition Number	NDAC Applicable Requirement
Carbon regeneration furnace	REP41	PM/PM_{10}/ Opacity	O&M/Reagent Flow Observations	4.B.3 & 4.B.5	33.1-15-14-06.5.a(3)(a)
		SO_2	O&M/pH Readings/ Reagent Flow Observations	4.B.3, 4.B.6 & 4.B.5	33.1-15-14-06.5.a(3)(a)
		NO_x	Emissions Test	4.B.7	33.1-15-14-06.5.a(3)(a)
		CO	Initial & 2023 Emissions Tests O&M & Temp. Recordkeeping	4.B.3, 4.B.15	33.1-15-14-06.5.a(3)(a) & ACP-18101 v1.0
		VOC	Recordkeeping	4.B.15	ACP-18101 v1.0
		HAP	Recordkeeping	4.B.15	ACP-18101 v1.0
		Temperature	Recordkeeping	4.B.15	ACP-18101 v1.0
Chemical storage tank	REP49	SO_2	Recordkeeping	4.B.16	33.1-15-14-06.5.a(3)(a)
Main boiler	UEP53	PM/PM_{10}/ Opacity	Recordkeeping	4.B.9	33.1-15-14-06.5.a(3)(a) & 33.1-15-12, Subpart Db
		SO_2	Recordkeeping	4.B.9	33.1-15-14-06.5.a(3)(a)
		NO_x	Alternative Monitoring Plan (PEMS), Emissions Test (RATA)	4.B.1, 4.B.2 & 4.B.7	33.1-15-14-06.5.a(3)(a) & 33.1-15-12, Subpart Db
		CO	Emissions Test	4.B.7	33.1-15-14-06.5.a(3)(a)
		O_2	PEMS	4.B.1, 4.B.10 & 4.B.11	33.1-15-14-06.5.a(3)(a) & 33.1-15-12, Subpart Db
		Fuel Flow	Recordkeeping	4.B.12	PTC 6/2/95

Emission Unit Description	EU	Pollutant/ Parameter	Monitoring Requirement (Method)	Condition Number	NDAC Applicable Requirement
Wastewater flare	WEP56	PM/PM_{10}/ Opacity	Recordkeeping	4.B.9	33.1-15-14-06.5.a(3)(a)
		SO_2	Recordkeeping	4.B.9	33.1-15-14-06.5.a(3)(a)
		NO_x	Recordkeeping	4.B.9	33.1-15-14-06.5.a(3)(a)
		CO	Recordkeeping	4.B.9	33.1-15-14-06.5.a(3)(a)
Germ fluidized dryer (old)	FEP77	PM/PM_{10}/ Opacity	O&M/Pressure Drop Readings	4.B.3 & 4.B.4	33.1-15-14-06.5.a(3)(a)
Diesel engine driven emergency generator	UEP78	Opacity	Recordkeeping	4.B.9	33.1-15-14-06.5.a(3)(a)
		Operating Hours	Recordkeeping	4.B.13	40 CFR 63, Subpart ZZZZ & 33.1-15-14-06.5.a(3)(a)
Fiber bin and pellet bin	FEP80	PM/PM_{10}/ Opacity	CAM	4.B.14	33.1-15-14-06.10
Germ rotary water dryer (new)	FEP81	PM/PM_{10}/ Opacity	O&M/VEO	4.B.3 & 4.B.8	33.1-15-14-06.5.a(3)(a)
Standby boiler	UEP85	PM/PM_{10}/ Opacity	Recordkeeping	4.B.9	33.1-15-14-06.5.a(3)(a)
		SO_2	Recordkeeping	4.B.9	33.1-15-14-06.5.a(3)(a)
		NO_x	Emissions Test	4.B.7	33.1-15-14-06.5.a(3)(a)
		CO	Emissions Test	4.B.7	33.1-15-14-06.5.a(3)(a)
		Fuel Flow	Recordkeeping	4.B.12	PTC 2/26/97
		Operating Hours	Recordkeeping	4.B.13	33.1-15-14-06.5.a(3)(a)
Diesel-fired emergency fire pump engine	UEP87	Opacity	Recordkeeping	4.B.9	33.1-15-14-06.5.a(3)(a)
		Operating Hours	Recordkeeping	4.B.13	40 CFR 63, Subpart ZZZZ & 33.1-15-14-06.5.a(3)(a)

B. **Monitoring Conditions**:

1) The monitoring shall be in accordance with the following applicable requirements of Chapter 33.1-15-12 of the North Dakota Air Pollution Control Rules (NDAC):

a) NDAC 33.1-15-12-02, Subpart A, §60.13, Monitoring Requirements:

b) NDAC 33.1-15-12-02, Subpart Db, §60.47b, Emission Monitoring for Sulfur Dioxide.

c) NDAC 33.1-15-12-02, Subpart Db, §60.48b Emission Monitoring for Particulate Matter and Nitrogen Oxides.

2) PEMS: The NO_x lb/10^6 Btu and NO_x lb/hr emission rate for the main boiler (EU UEP53) shall be predicted using the NO_x alternative monitoring plan in Attachment A of this permit.

a) The PEMS shall be certified to comply with the applicable requirements of 40 CFR 60, Appendix B, Performance Specification 16.

b) A relative accuracy test audit (RATA) shall be conducted twice during the term of the permit on the nitrogen oxides PEMS in accordance with the applicable procedures in 40 CFR 60, Appendix B, Performance Specification 16.

1) The first test shall be conducted within two years of issuance of the renewal permit and the second test shall be conducted no sooner than two years after the previous test.

3) The permittee shall maintain and operate air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. The manufacturer's recommended Operations and Maintenance (O&M) procedures, or a site-specific O&M procedure (developed from the manufacturer's recommended O&M procedures), shall be followed to assure proper operation and maintenance of the equipment. The permittee shall have the O&M procedures available on site and provide the Department with a copy when requested.

4) Once per week in which the emission unit (EU FEP77) is operated, a pressure drop reading shall be taken and recorded.

Table 4.2 Pressure Drop Limits

Emission Unit Description	EU	Pressure Drop Limits
Germ fluidized dryer (old)	FEP77	7.0 ± 4.0 inches W.C.

a) If the pressure drop reading is outside the pressure drop limits outlined in the Pressure Drop Limits Table 4.2, the permittee must investigate the problem within eight hours. Any problems that are discovered must be corrected as soon as possible. If correction of the problem is expected to take longer than 24 hours, the permittee shall follow procedures as outlined in Condition 7.G.

b) Following corrective maintenance, a pressure drop reading shall be made.

c) All investigations of malfunctions and pressure drops shall be recorded. The permittee shall comply with the visible emissions and particulate emission limits in Condition 4 (emission limits) and nothing in this condition shall be construed as authorizing otherwise.

5) Once per day an observation of the reagent flow switch and system shall be made and recorded to confirm reagent flow to the scrubber for EU REP41 (carbon regeneration furnace).

a) If a malfunction of flow is observed, the permittee must investigate the problem within eight hours. Any problems that are discovered must be corrected as soon as possible. If the correction of the malfunction is expected to take longer than 24 hours, the permittee shall follow procedures as outlined in Condition 7.G.

b) All investigations of malfunctions shall be recorded. The permittee shall comply with the visible emissions, particulate and SO_2 emissions limits in Condition 4 (emission and opacity limits) and nothing in this condition shall be construed as authorizing otherwise.

6) Once per week, a pH level reading of the reagent shall be taken and recorded for EU REP41 (carbon regeneration furnace).

a) If the pH level reading is five or less, the permittee must investigate the problem within eight hours. Any problems that are discovered must be corrected as soon as possible. If correction of the problem is expected to take longer than 24 hours, the permittee shall follow procedures as outlined in Condition 7.G.

b) Following corrective maintenance, a pH level reading shall be taken.

c) All investigations of malfunctions and pH level readings shall be recorded. The permittee shall comply with the SO_2 emission limit in Condition 4 (emission limits) and nothing in this condition shall be construed as authorizing otherwise.

7) For EU FEP20, FEP21, REP41, UEP53 and UEP85: Twice during the term of the 5-year renewal permit, to provide a reasonable assurance of compliance, the permittee shall conduct an emissions test to measure NO_x and/or CO emissions as applicable, using EPA Reference Methods in 40 CFR 60, Appendix A or at a minimum a portable analyzer method approved by the Department. A test shall consist of three runs, with each run at least 20 minutes in length.

a) The first test shall be conducted within two years of issuance of the renewal permit and the second test shall be conducted no sooner than two years after the previous test.

b) The manufacturer's recommended operations and maintenance (O&M) procedures, or a site-specific O&M procedure (developed from the manufacturer's recommended O&M procedures), shall be followed to assure proper operation and maintenance of the emission unit. The permittee shall have the O&M procedures available on-site and provide the Department with a copy when requested.

c) For EU UEP85 (standby boiler) an emissions test as outlined above shall be conducted when this unit has operated more than 500 hours in a calendar year.

8) Visible Emissions Observation (VEO): At least once per week in which the emission unit EU FEP81 (germ rotary water dryer) is operated, a company representative who has received Department approved visible emissions training (requires a one-time visible emissions lecture course) shall observe the emission point.

a) If no visible emissions are present, the permittee shall record the date, time and observation results. If the observation indicates visible emissions are present:

1] The permittee must investigate for a potential problem within eight hours. Any problems that are discovered must be corrected as soon as possible.

2] Following correction of discovered problems, the emission point shall be observed by a trained company representative (need not be certified). If no visible emissions are observed, the date and time shall be recorded.

b) If visible emissions are observed for longer than 24 hours, the emission unit will be taken offline by the permittee for corrective maintenance.

c) If the corrective maintenance is expected to take longer than 24 hours, the permittee shall follow procedures as outlined in Condition 7.G.

d) All instances of visible emissions, investigations of malfunctions, and corrective actions shall be recorded. The permittee shall comply with the visible emissions emission limits and nothing in this condition shall be construed as authorizing otherwise.

9) For purposes of compliance monitoring, burning of fuel as outlined in Condition 2.A shall be considered credible evidence of compliance with any applicable opacity, PM/PM_{10} and SO_2 emission limit, as well as the NO_x and CO emission limits for the wastewater flare (EU WEP56). However, results from tests conducted in accordance with the test methods in 40 CFR 50, 51, 60, 61, or 75 will take precedence over burning of fuels as outlined in Condition 2.A for evidence of compliance or noncompliance with any applicable emission limit in the event of enforcement action.

10) The Department may require additional performance audits of the PEMS equipment.

11) When NO_x emission data are not obtained because of predictive emissions monitoring system (O_2) breakdowns, repairs, calibration checks and zero and span adjustments, emission data will be obtained by using standby monitoring systems, Method 7, Method 7A, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating units operating day, in at least 22 out of 30 successive steam generating unit operating days.

12) The flow (fuel input) to each of the boilers [main boiler (EU UEP53) and standby boiler (EU UEP85)] shall be monitored by a flow meter and recorded daily to demonstrate compliance with the fuel flow limit indicated in Table 3.1, footnote H.

13) A log shall be kept of the total hours of operation on a calendar year basis for each engine. For emergency engines, records shall be maintained to differentiate between time operated for emergency purposes, for maintenance/testing purposes, and for other nonemergency purposes.

14) Monitoring for the emission unit shall be conducted in accordance with the Compliance Assurance Monitoring (CAM) plan in Attachment B of this permit. The measured indicators for the emissions units subject to CAM are summarized as follows:

Table 4.3 Summary of CAM Indicators

Emission Unit (Description)	Control	Indicator	Indicator Range	Frequency
CEP1 (Grain Unloading)	Baghouse (PM/PM_{10})	Pressure Drop	0.075 to 3.0 in H_2O	Once per 24-hour period
		VEO	No Visible Emissions	Once per week
FEP80 (Fiber Bin and Pellet Bin)	Baghouse (PM/PM_{10})	Pressure Drop	0 to 10.0 in H_2O	Once per 24-hour period
		VEO	No Visible Emissions	Once per week
FEP26 (Fiber Pellet Cooler)	Cyclone (PM/PM_{10})	VEO	No Visible Emissions	Once per week
MEP12 (Steep Tanks)	Caustic Scrubber (SO_2)	Level of pH	>5.5	Continuously
		Pressure Drop	1.5 to 15.0 in H_2O	Once per 24-hour period
MEP13 (Millhouse Tanks)	Caustic Scrubber (SO_2)	Level of pH	>5.5	Continuously
		Pressure Drop	1.5 to 15.0 in H_2O	Once per 24-hour period
FEP18 (Feedhouse Tanks)	Caustic Scrubber (SO_2)	Level of pH	>5.5	Continuously
		Pressure Drop	1.0 to 10.0 in H_2O	Once per 24-hour period

15) Three-hour average must be recorded for the EU FEP20 (thermal oxidizer) temperature, EU FEP21 (gluten dryer) scrubber flow and EU REP41 (carbon regeneration furnace) temperature. Daily averages must also be recorded for EU FEP21 (gluten dryer) scrubber pH and pressure drop.

a) If readings are out of specification, the permittee must investigate the problem within eight hours. Any problems that are discovered must be corrected as soon as

possible. If correction of the problem is expected to take longer than 24 hours, the permittee shall follow procedures as outlined in Condition 7.G.

16) For EU REP49 (3,000-gallon chemical storage tank), once per week, an observation of the scrubber water flow shall be taken and recorded.

a) Any problems that are discovered must be corrected as soon as possible. If correction of the problem is expected to take longer than 24 hours, the permittee shall follow procedures as outlined in Condition 7.G. Following corrective maintenance, a flow observation shall be taken.

b) All investigations of malfunctions and scrubber water flow shall be recorded. The permittee shall comply with the SO_2 emission limit in Condition 4 (emission limits) and nothing in this condition shall be construed as authorizing otherwise.

5. **Recordkeeping Requirements**:

A. The permittee shall maintain compliance monitoring records as outlined in the Monitoring Records table that include the following information.

1) The date, place (as defined in the permit) and time of sampling or measurement.

2) The date(s) testing was performed.

3) The company, entity, or person that performed the testing.

4) The testing techniques or methods used.

5) The results of such testing.

6) The operating conditions that existed at the time of sampling or measurement.

7) The records of quality assurance for emissions measuring systems including but not limited to quality control activities, audits and calibration drifts as required by the applicable test method.

8) A copy of all field data sheets from the emissions testing.

9) A record shall be kept of all major maintenance activities conducted on the emission units or air pollution control equipment.

10) Records shall be kept as to the type of fuel usage

Applicable Requirement: NDAC 33.1-15-14-06.5.a(3)(b)[1]

Table 5.1 Monitoring Records

Emission Unit Description	EU	Pollutant/Parameter	Compliance Monitoring Record
Grain unloading	CEP1	PM/PM_{10}/Opacity	CAM Data
Steep tanks	MEP12	SO_2/Opacity	CAM Data
Millhouse tanks	MEP13	SO_2/Opacity	CAM Data
Feedhouse tanks	FEP18	SO_2/Opacity	CAM Data
Thermal oxidizer	FEP20	PM/PM_{10}/Opacity	Type of Fuel Usage
		SO_2	Type of Fuel Usage
		NO_x	Emissions Test Data
		CO	Emissions Test Data
		Temperature	Temperature Data
Gluten dryer	FEP21	PM/PM_{10}/Opacity	Type of Fuel Usage
		SO_2	Type of Fuel Usage
		NO_x	Emissions Test Data
		CO	Emissions Test Data
		VOC/HAP/Scrubber	Scrubber Flow, Pressure Drop & pH Data
Fiber pellet cooler	FEP26	PM/PM_{10}/Opacity	CAM Data
Carbon regeneration furnace	REP41	PM/PM_{10}/Opacity	O&M and Reagent Flow Observations Data
		SO_2	O&M/pH Readings and Reagent Flow Observations Data
		NO_x	Emissions Test Data
		CO	Initial and 2023 Emissions Test and O&M Data
		CO/VOC/HAP/Temp.	Temperature Data
Chemical storage tank	REP49	SO_2	Scrubber Water Flow Observations Data

Emission Unit Description	EU	Pollutant/Parameter	Compliance Monitoring Record
main boiler	UEP53	PM/PM_{10}/Opacity	Type of Fuel Usage
		SO_2	Type of Fuel Usage
		NO_x	Alternative Monitoring Plan (PEMS) & Emissions Test (RATA) Data
		CO	Emissions Test Data
		O_2	PEMS Data
		Fuel Flow	Fuel Flow Data
Wastewater flare	WEP56	PM/PM_{10}/Opacity/ SO_2/NO_x/CO	Type of Fuel Usage
Germ fluidized dryer (old)	FEP77	PM/PM_{10}/Opacity	O&M and Pressure Drop Data
Diesel engine-driven emergency generator	UEP78	Opacity	Type of Fuel Usage
		Operating Hours	Hours of Operation Data
Fiber bin and pellet bin	FEP80	PM/PM_{10}/Opacity	CAM Data
Germ rotary water dryer (new)	FEP81	PM/PM_{10}/Opacity	O&M and VEO Data
Standby boiler	UEP85	PM/PM_{10}/Opacity	Type of Fuel Usage
		SO_2	Type of Fuel Usage
		NO_x	Emissions Test Data
		CO	Emissions Test Data
		Fuel Flow	Fuel Flow Data
		Operating Hours	Hours of Operation Data
Diesel-fired emergency fire pump engine	UEP87	Opacity	Type of Fuel Usage
		Operating Hours	Hours of Operation Data

B. In addition to requirements outlined in Condition 5.A, recordkeeping for the main boiler (EU UEP53) shall be in accordance with NDAC 33.1-15-12 and 40 CFR 60, as applicable.

1) NDAC 33.1-15-12-02, Subpart A, §60.7, Notification and Recordkeeping.

2) NDAC 33.1-15-12-02, Subpart Db, §60.496, Reporting and Recordkeeping Requirements.

Applicable Requirements: NDAC 33.1-15-12-02, Subparts A and Db

C. Recordkeeping for EU CEP1, MEP12, MEP13, FEP18, FEP26 and FEP80 shall be in accordance with NDAC 33.1-15-14-06.10, §64.9 - Reporting and Recordkeeping Requirements, Paragraph (b) General Recordkeeping Requirements.

Applicable Requirement: NDAC 33.1-15-14-06.10

D. The permittee shall retain records of all required monitoring data and support information for a period of at least five years from the date of the monitoring sampling, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings/computer printouts of continuous monitoring instrumentation, and copies of all reports required by the permit.

Applicable Requirement: NDAC 33.1-15-14-06.5.a(3)(b)[2]

6. **Reporting**:

A. For the main boiler (EU UEP53), reporting shall be in accordance with NDAC 33.1-15-12 and 40 CFR 60, as applicable.

1) NDAC 33.1-15-12-02, Subpart A, §60.7, Notification and Recordkeeping.

2) NDAC 33.1-15-12-02, Subpart Db, §60.496, Reporting and Recordkeeping Requirements.

3) Quarterly excess emission reports for the main boiler (EU UEP53) shall be submitted by the 30th day following the end of each calendar quarter. Excess emissions are defined as emissions which exceed the emission limits for the main boiler (EU UEP53) as outlined in Condition 3. Excess emissions shall be reported for the following:

Table 6.1 Quarterly Excess Emissions Reports

Pollutant/Parameter	Reporting Period
NO_x lb/10^6 Btu	30-day rolling average
NO_x lb/hr	1-hour average

Applicable Requirements: NDAC 33.1-15-12-02, Subparts A and Db

B. Reporting for EU CEP1, MEP12, MEP13, FEP18, FEP26 and FEP80 shall be in accordance with NDAC 33.1-15-14-06.10, §64.9 - Reporting and Recordkeeping Requirements, Paragraph (b) General Recordkeeping Requirements.

Applicable Requirement: NDAC 33.1-15-14-06.10

C. The permittee shall submit a semi-annual monitoring report for all monitoring records required under Condition 5 in a format provided or approved by the Department. All instances of deviations

from the permit must be identified in the report. A monitoring report shall be submitted within 45 days after June 30 and December 31 of each year.

Applicable Requirements: NDAC 33.1-15-14-06.5.a(3)(c)[1] and [2]

D. The permittee shall submit an annual compliance certification report in accordance with NDAC 33.1-15-14-06.5.c(5) within 45 days after December 31 of each year in a format provided or approved by the Department.

Applicable Requirement: NDAC 33.1-15-14-06.5.c(5)

E. For emission units where the method of compliance monitoring is demonstrated by an EPA Test Method or a portable analyzer test, the test report shall be submitted to the Department within 60 days after completion of the test.

Applicable Requirement: NDAC 33.1-15-14-06.5.a(6)(e)

F. The permittee shall submit an annual emission inventory report (AEIR) in a format provided or approved by the Department. This report shall be submitted by March 15 of each year. Insignificant units/activities listed in this permit do not need to be included in the report.

Applicable Requirements: NDAC 33.1-15-14-06.5.a(7) and NDAC 33.1-15-23-04

7. **Facility Wide Operating Conditions**:

A. **Ambient Air Quality Standards**:

1) Particulate and gases. The permittee shall not emit air contaminants in such a manner or amount that would violate the standards of ambient air quality listed in Table 1 of NDAC 33.1-15-02, external to buildings, to which the general public has access.

2) Radioactive substances. The permittee shall not release into the ambient air any radioactive substances exceeding the concentrations specified in NDAC 33.1-10.

3) Other air contaminants. The permittee shall not emit any other air contaminants in concentrations that would be injurious to human health or well-being or unreasonably interfere with the enjoyment of property or that would injure plant or animal life.

4) Disclaimer. Nothing in any other part or section of this permit may in any manner be construed as authorizing or legalizing the emission of air contaminants in such manner that would violate the standards in Paragraphs 1), 2) and 3) of this condition.

Applicable Requirements: NDAC 33.1-15-02-04 and 40 CFR 50.1(e)

B. **Fugitive Emissions**: The release of fugitive emissions shall comply with the applicable requirements in NDAC 33.1-15-17.

Applicable Requirement: NDAC 33.1-15-17

C. **Open Burning**: The permittee may not cause, conduct, or permit open burning of refuse, trade waste, or other combustible material, except as provided for in Section 33.1-15-04-02 and may not conduct, cause, or permit the conduct of a salvage operation by open burning. Any permissible open burning under NDAC 33.1-15-04-02 must comply with the requirements of that section.

Applicable Requirement: NDAC 33.1-15-04

D. **Asbestos Renovation or Demolition**: Any asbestos renovation or demolition at the facility shall comply with emission standard for asbestos in NDAC 33.1-15-13.

Applicable Requirement: NDAC 33.1-15-13-02

E. **Requirements for Organic Compounds Gas Disposal**:

1) Any organic compounds, gases and vapors which are generated as wastes as the result of storage, refining or processing operations and which contain hydrogen sulfide shall be incinerated, flared or treated in an equally effective manner before being released into the ambient air.

2) Each flare must be equipped and operated with an automatic ignitor or a continuous burning pilot.

Applicable Requirement: NDAC 33.1-15-07-02

F. **Rotating Pumps and Compressors**: All rotating pumps and compressors handling volatile organic compounds must be equipped and operated with properly maintained seals designed for their specific product service and operating conditions.

Applicable Requirement: NDAC 33.1-15-07-01.5

G. **Shutdowns/Malfunction/Continuous Emission Monitoring System Failure**:

1) Maintenance Shutdowns. In the case of shutdown of air pollution control equipment for necessary scheduled maintenance, the intent to shut down such equipment shall be reported to the Department at least 24 hours prior to the planned shutdown provided that the air contaminating source will be operated while the control equipment is not in service. Such prior notice shall include the following:

a) Identification of the specific facility to be taken out of service as well as its location and permit number.

b) The expected length of time that the air pollution control equipment will be out of service.

c) The nature and estimated quantity of emissions of air pollutants likely to be emitted during the shutdown period.

d) Measures, such as the use of off-shift labor and equipment, that will be taken to minimize the length of the shutdown period.

e) The reasons that it would be impossible or impractical to shut down the source operation during the maintenance period.

f) Nothing in this subsection shall in any manner be construed as authorizing or legalizing the emission of air contaminants in excess of the rate allowed by this article or a permit issued pursuant to this article.

Applicable Requirement: NDAC 33.1-15-01-13.1

2) Malfunctions.

a) When a malfunction in any installation occurs that can be expected to last longer than 24 hours and cause the emission of air contaminants in violation of this article or other applicable rules and regulations, the person responsible for such installation shall notify the Department of such malfunction as soon as possible during normal working hours. The notification must contain a statement giving all pertinent facts, including the estimated duration of the breakdown. The Department shall be notified when the condition causing the malfunction has been corrected.

b) Immediate notification to the Department is required for any malfunction that would threaten health or welfare or pose an imminent danger. During normal working hours the Department can be contacted at 701-328-5188. After hours the Department can be contacted through the 24-hour state radio emergency number 1-800-472-2121. If calling from out of state, the 24-hour number is 701-328-9921.

c) Unavoidable Malfunction. The owner or operator of a source who believes any excess emissions resulted from an unavoidable malfunction shall submit a written report to the Department which includes evidence that:

[1] The excess emissions were caused by a sudden, unavoidable breakdown of technology that was beyond the reasonable control of the owner or operator.

[2] The excess emissions could not have been avoided by better operation and maintenance, did not stem from an activity or event that could have been foreseen and avoided, or planned for.

[3] To the extent practicable, the source maintained and operated the air pollution control equipment and process equipment in a manner consistent with good practice for minimizing emissions, including minimizing any bypass emissions.

[4] Any necessary repairs were made as quickly as practicable, using off-shift labor and overtime as needed and possible.

[5] All practicable steps were taken to minimize the potential impact of the excess emissions on ambient air quality.

[6] The excess emissions are not part of a recurring pattern that may have been caused by inadequate operation or maintenance, or inadequate design of the malfunctioning equipment.

The report shall be submitted within 30 days of the end of the calendar quarter in which the malfunction occurred or within 30 days of a written request by the Department, whichever is sooner.

The burden of proof is on the owner or operator of the source to provide sufficient information to demonstrate that an unavoidable equipment malfunction occurred. The Department may elect not to pursue enforcement action after considering whether excess emissions resulted from an unavoidable equipment malfunction. The Department will evaluate, on a case-by-case basis, the information submitted by the owner or operator to determine whether to pursue enforcement action.

Applicable Requirement: NDAC 33.1-15-01-13.2

3) Continuous Emission Monitoring System Failures. When a failure of a continuous emission monitoring system occurs, an alternative method for measuring or estimating emissions must be undertaken as soon as possible. The owner or operator of a source that uses an alternative method shall have the burden of demonstrating that the method is accurate. Timely repair of the emission monitoring system must be made. The provisions of this subsection do not apply to sources that are subject to monitoring requirements in Chapter 33.1-15-21 (40 CFR 75, Acid Rain Program).

Applicable Requirement: NDAC 33.1-15-01-13.3

H. **Air Pollution from Internal Combustion Engines**: The permittee shall comply with all applicable requirements of NDAC 33.1-15-08-01 – Internal Combustion Engine Emissions Restricted.

Applicable Requirement: NDAC 33.1-15-08-01

I. **Prohibition of Air Pollution**:

1) The permittee shall not permit or cause air pollution, as defined in NDAC 33.1-15-01-04.

2) Nothing in any other part of this permit or any other regulation relating to air pollution shall in any manner be construed as authorizing or legalizing the creation or maintenance of air pollution.

Applicable Requirement: NDAC 33.1-15-01-15

J. **Performance Tests**:

1) The Department may reasonably require the permittee to make or have made tests, at a reasonable time or interval, to determine the emission of air contaminants from any source, for the purpose of determining whether the permittee is in violation of any standard or to satisfy other requirements of NDCC 23.1-06. All tests shall be made, and the results calculated in accordance with test procedures approved or specified by the Department including the North Dakota Department of Environmental Quality Emission Testing Guideline. All tests shall be conducted by reputable, qualified personnel. The Department shall be given a copy of the test results in writing and signed by the person responsible for the tests.

2) The Department may conduct tests of emissions of air contaminants from any source. Upon request of the Department, the permittee shall provide necessary and adequate access into stacks or ducts and such other safe and proper sampling and testing facilities, exclusive of instruments and sensing devices, as may be necessary for proper determination of the emission of air contaminants.

Applicable Requirement: NDAC 33.1-15-01-12

3) Except for sources subject to 40 CFR 63, the permittee shall notify the Department by submitting a Proposed Test Plan, or its equivalent, at least 30 calendar days in advance of any tests of emissions of air contaminants required by the Department. The permittee shall notify the Department at least 60 calendar days in advance of any performance testing required under 40 CFR 63, unless otherwise specified by the subpart. If the permittee is unable to conduct the performance test on the scheduled date, the permittee shall notify the Department as soon as practicable when conditions warrant and shall coordinate a new test date with the Department.

Failure to give the proper notification may prevent the Department from observing the test. If the Department is unable to observe the test because of improper notification, the test results may be rejected.

Applicable Requirements: NDAC 33.1-15-14-06.5.a(3)(a), NDAC 33.1-15-12-02 Subpart A (40 CFR 60.8), NDAC 33.1-15-13-01.2 Subpart A (40 CFR 61.13), NDAC 33.1-15-22-03 Subpart A (40 CFR 63.7)

K. **Pesticide Use and Disposal**: Any use of a pesticide or disposal of surplus pesticides and empty pesticide containers shall comply with the requirements in NDAC 33.1-15-10.

Applicable Requirements: NDAC 33.1-15-10-01 and NDAC 33.1-15-10-02

L. **Air Pollution Emergency Episodes**: When an air pollution emergency episode is declared by the Department, the permittee shall comply with the requirements in NDAC 33.1-15-11.

Applicable Requirements: NDAC 33.1-15-11-01 through NDAC 33.1-15-11-04

M. **Stratospheric Ozone Protection**: The permittee shall comply with any applicable standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for MVACs in Subpart B:

1) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to Section 82.156.

2) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to Section 82.158.

3) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to Section 82.161.

4) Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to Section 82.156.

Applicable Requirement: 40 CFR 82

N. **Chemical Accident Prevention**: The permittee shall comply with all applicable requirements of Chemical Accident Prevention pursuant to 40 CFR 68. The permittee shall comply with the requirements of this part no later than the latest of the following dates:

1) Three years after the date on which a regulated substance is first listed under this part; or

2) The date on which a regulated substance is first present above a threshold quantity in a process.

Applicable Requirement: 40 CFR 68

O. **Air Pollution Control Equipment**: The permittee shall maintain and operate air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. The manufacturer's recommended Operations and Maintenance (O&M) procedures, or a site-specific O&M procedure developed from the manufacturer's recommended O&M procedures, shall be followed to assure proper operation and maintenance of the equipment. The

permittee shall have the O&M procedures available onsite and provide the Department with a copy when requested.

Applicable Requirement: NDAC 33.1-15-14-06.5.b(1)

P. **Prevention of Significant Deterioration of Air Quality** (40 CFR 52.21 as incorporated by NDAC Chapter 33.1-15-15): If this facility is classified as a major stationary source under the Prevention of Significant Deterioration of Air Quality (PSD) rules, a Permit to Construct must be obtained from the Department for any project which meets the definition of a "major modification" under 40 CFR 52.21(b)(2).

If this facility is classified as a major stationary source under the PSD rules and the permittee elects to use the method specified in 40 CFR 52.21(b)(41)(ii)(a) through (c) for calculating the projected actual emissions of a proposed project, then the permittee shall comply with all applicable requirements of 40 CFR 52.21(r)(6).

Applicable Requirement: NDAC 33.1-15-15-01.2

8. **General Conditions**:

A. **Annual Fee Payment**: The permittee shall pay an annual fee, for administering and monitoring compliance, which is determined by the actual annual emissions of regulated contaminants from the previous calendar year. The Department will send a notice, identifying the amount of the annual permit fee, to the permittee of each affected installation. The fee is due within 60 days following the date of such notice. Any source that qualifies as a "small business" may petition the Department to reduce or exempt any fee required under this section. Failure to pay the fee in a timely manner or submit a certification for exemption may cause this Department to initiate action to revoke the permit.

Applicable Requirements: NDAC 33.1-15-14-06.5.a(7) and NDAC 33.1-15-23-04

B. **Permit Renewal and Expiration**: This permit shall be effective from the date of its issuance for a fixed period of five years. The permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least six months, but no more than 18 months, prior to the date of permit expiration. The Department shall approve or disapprove the renewal application within 60 days of receipt. Unless the Department requests additional information or otherwise notifies the applicant of incompleteness, the application shall be deemed complete. For timely and complete renewal applications for which the Department has failed to issue or deny the renewal permit before the expiration date of the previous permit, all terms and conditions of the permit, including any permit shield previously granted shall remain in effect until the renewal permit has been issued or denied. The application for renewal shall include the current permit number, description of any permit revisions and off-permit changes that occurred during the permit term, and any applicable requirements that were promulgated and not incorporated into the permit during the permit term.

Applicable Requirements: NDAC 33.1-15-14-06.4 and NDAC 33.1-15-14-06.6

C. **Transfer of Ownership or Operation**: This permit may not be transferred except by procedures allowed in Chapter 33.1-15-14 and is to be returned to the Department upon the destruction or change of ownership of the source unit(s), or upon expiration, suspension or revocation of this permit. A change in ownership or operational control of a source is treated as an administrative permit amendment if no other change in the permit is necessary and provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittee has been submitted to the Department.

Applicable Requirement: NDAC 33.1-15-14-06.6.d

D. **Property Rights**: This permit does not convey any property rights of any sort, or any exclusive privilege.

Applicable Requirement: NDAC 33.1-15-14-06.5.a(6)(d)

E. **Submissions**:

1) Reports, test data, monitoring data, notifications, and requests for renewal shall be submitted to the Department using a format provided or approved by the Department. Physical submittals shall be submitted to:

North Dakota Department of Environmental Quality
Division of Air Quality
4201 Normandy Street, 2nd Floor
Bismarck, ND 58503-1324

2) Any application form, report or compliance certification submitted shall be certified as being true, accurate, and complete by a responsible official.

Applicable Requirement: NDAC 33.1-15-14-06.4.d

F. **Right of Entry**: Any duly authorized officer, employee or agent of the North Dakota Department of Environmental Quality may enter and inspect any property, premise or place listed on this permit or where records are kept concerning this permit at any reasonable time for the purpose of ascertaining the state of compliance with this permit and the North Dakota Air Pollution Control Rules. The Department may conduct tests and take samples of air contaminants, fuel, processing material, and other materials which affect or may affect emissions of air contaminants from any source. The Department shall have the right to access and copy any records required by the Department's rules and to inspect monitoring equipment located on the premises.

Applicable Requirements: NDAC 33.1-15-14-06.5.c(2) and NDAC 33.1-15-01-06

G. **Compliance**: The permittee must comply with all conditions of this permit. Any noncompliance with a federally-enforceable permit condition constitutes a violation of the Federal Clean Air Act. Any noncompliance with any State enforceable condition of this permit constitutes a violation of NDCC Chapter 23.1-06 and NDAC 33.1-15. Violation of any condition of this permit is grounds for enforcement action, for permit termination, revocation and reissuance or modification, or for denial of a permit renewal application. Noncompliance may also be grounds for assessment of penalties under the NDCC 23.1-06. It shall not be a defense for a permittee in an enforcement

action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

Applicable Requirements: NDAC 33.1-15-14-06.5.a(6)(a) and NDAC 33.1-15-14-06.5.a(6)(b)

H. **Duty to Provide Information**: The permittee shall furnish to the Department, within a reasonable time, any information that the Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. This includes instances where an alteration, repair, expansion, or change in method of operation of the source occurs. Upon request, the permittee shall also furnish to the Department copies of records that the permittee is required to keep by this permit, or for information claimed to be confidential, the permittee may furnish such recourse directly to the Department along with a claim of confidentiality. The permittee, upon becoming aware that any relevant facts were omitted, or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information. Items that warrant supplemental information submittal include, but are not limited to, changes in the ambient air boundary and changes in parameters associated with emission points (i.e., stack parameters). The permittee shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete renewal application was submitted but prior to release of a draft permit.

Applicable Requirements: NDAC 33.1-15-14-06.5.a(6)(c), NDAC 33.1-15-14-06.6.b(3) and NDAC 33.1-15-14-06.4.b

I. **Reopening for Cause**: The Department will reopen and revise this permit as necessary to remedy deficiencies in the following circumstances:

1) Additional applicable requirements under the Federal Clean Air Act become applicable to the permittee with a remaining permit term of three or more years. Such a reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the expiration date of this permit.

2) The Department or the United States Environmental Protection Agency determines that this permit contains a material mistake or inaccurate statements were made in establishing the emissions standards or other terms or conditions of this permit.

3) The Department or the United States Environmental Protection Agency determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

4) Reopenings shall not be initiated before a notice of intent to reopen is provided to the permittee by the Department at least 30 days in advance of the date that this permit is to be reopened, except that the Department may provide a shorter time period in the case of an emergency. Proceedings to reopen and issue this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening shall be made as expeditiously as practicable.

Applicable Requirement: NDAC 33.1-15-14-06.6.f

J. **Permit Changes**: The permit may be modified, revoked, reopened, and reissued or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

Applicable Requirement: NDAC 33.1-15-14-06.5.a(6)(c)

K. **Off-Permit Changes**: A permit revision is not required for changes that are not addressed or prohibited by this permit, provided the following conditions are met:

1) No such change may violate any term or condition of this permit.

2) Each change must comply with all applicable requirements.

3) Changes under this provision may not include changes or activities subject to any requirement under Title IV or that are modifications under any provision of Title I of the Federal Clean Air Act.

4) A Permit to Construct under NDAC 33.1-15-14-02 has been issued, if required.

5) Before the permit change is made, the permittee must provide written notice to both the Department and Air Program (8P-AR), Office of Partnerships & Regulatory Assistance, US EPA Region 8, 1595 Wynkoop Street, Denver, CO 80202-1129, except for changes that qualify as insignificant activities in Section 33.1-15-14-06. This notice shall describe each change, the date of the change, any change in emissions, pollutants emitted, and any applicable requirement that would apply as a result.

6) The permittee shall record all changes that result in emissions of any regulated air pollutant subject to any applicable requirement not otherwise regulated under this permit, and the emissions resulting from those changes. The record shall reside at the permittee's facility.

Applicable Requirement: NDAC 33.1-15-14-06.6.b(3)

L. **Administrative Permit Amendments**: This permit may be revised through an administrative permit amendment, if the revision to this permit accomplishes one of the following:

1) Corrects typographical errors.

2) Identifies a change in the name, address or phone number of any person identified in this permit or provides a similar minor administrative change at the source.

3) Requires more frequent monitoring or reporting by the permittee.

4) Allows for a change in ownership or operational control of the source where the Department determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new permittee has been submitted to the Department.

5) Incorporates into the Title V permit the requirements from a Permit to Construct when the review was substantially equivalent to Title V requirements for permit issuance, renewal, reopenings, revisions and permit review by the United States Environmental Protection Agency and affected state review, that would be applicable to the change if it were subject to review as a permit modification and compliance requirements substantially equivalent to Title V requirements for permit content were contained in the Permit to Construct.

6) Incorporates any other type of change which the Administrator of the United States Environmental Protection Agency has approved as being an administrative permit amendment as part of the Department's approved Title V operating permit program.

Applicable Requirement: NDAC 33.1-15-14-06.6.d

M. **Minor Permit Modifications**: This permit may be revised by a minor permit modification, if the proposed permit modification meets the following requirements:

1) Does not violate any applicable requirement.

2) Does not involve significant changes to existing monitoring, reporting, or recordkeeping requirements in this permit.

3) Does not require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis.

4) Does not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include a federally enforceable emissions cap assumed to avoid classification as a modification under any provision of Title I of the Federal Clean Air Act; and alternative emissions limit approved pursuant to regulations promulgated under Section 112(i)(5) of the Federal Clean Air Act.

5) Is not a modification under NDAC 33.1-15-12, 33.1-15-13, and 33.1-15-15 or any provision of Title I of the Federal Clean Air Act.

6) Is not required to be processed as a significant modification.

Applicable Requirement: NDAC 33.1-15-14-06.6.e(1)

N. **Significant Modifications**:

1) Significant modification procedures shall be used for applications requesting permit modifications that do not qualify as minor permit modifications or as administrative amendments. Every significant change in existing monitoring permit terms or conditions and every relaxation of reporting or recordkeeping permit terms or conditions shall be considered significant. Nothing therein shall be construed to preclude the permittee from making changes consistent with this subsection that would render existing permit compliance terms and conditions irrelevant.

2) Significant permit modifications shall meet all Title V requirements, including those for applications, public participation, review by affected states, and review by the United States Environmental Protection Agency, as they apply to permit issuance and permit renewal. The Department shall complete review of significant permit modifications within nine months after receipt of a complete application.

Applicable Requirement: NDAC 33.1-15-14-06.6.e(3)

O. **Operational Flexibility**: The permittee is allowed to make a limited class of changes within the permitted facility that contravene the specific terms of this permit without applying for a permit revision, provided the changes do not exceed the emissions allowable under this permit, are not Title I modifications and a Permit to Construct is not required. This class of changes does not include changes that would violate applicable requirements; or changes to federally-enforceable permit terms or conditions that are monitoring, recordkeeping, reporting, or compliance certification requirements.

The permittee is required to send a notice to both the Department and Air Program (8P-AR), Office of Partnerships & Regulatory Assistance, US EPA Region 8, 1595 Wynkoop Street, Denver, CO 80202-1129, at least seven days in advance of any change made under this provision. The notice must describe the change, when it will occur and any change in emissions, and identify any permit terms or conditions made inapplicable as a result of the change. The permittee shall attach each notice to its copy of this permit. Any permit shield provided in this permit does not apply to changes made under this provision.

Applicable Requirement: NDAC 33.1-15-14-06.6.b(2)

P. **Relationship to Other Requirements**: Nothing in this permit shall alter or affect the following:

1) The provisions of Section 303 of the Federal Clean Air Act (emergency orders), including the authority of the administrator of the United States Environmental Protection Agency under that section.

2) The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance.

3) The ability of the United States Environmental Protection Agency to obtain information from a source pursuant to Section 114 of the Federal Clean Air Act.

4) Nothing in this permit shall relieve the permittee of the requirement to obtain a Permit to Construct.

Applicable Requirements: NDAC 33.1-15-14-06.3 and NDAC 33.1-15-14-06.5.f(3)(a), (b) and (d)

Q. **Severability Clause**: The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

Applicable Requirement: NDAC 33.1-15-14-06.5.a(5)

R. **Circumvention**: The permittee shall not cause or permit the installation or use of any device of any means which conceals or dilutes an emission of air contaminants which would otherwise violate this permit.

Applicable Requirement: NDAC 33.1-15-01-08

9. **State Enforceable Only Conditions (not Federally enforceable)**:

A. **General Odor Restriction**: The permittee shall not discharge into the ambient air any objectionable odorous air contaminant which exceeds the limits established in NDAC 33.1-15-16.

Applicable Requirement: NDAC 33.1-15-16

B. **Hydrogen Sulfide Restriction**: The permittee shall not discharge into the ambient air hydrogen sulfide (H_2S) in concentrations that would be objectionable on land owned or leased by the complainant or in areas normally accessed by the general public. For the purpose of complaint resolution, two samples with concentrations greater than 0.05 parts per million (50 parts per billion) sampled at least 15 minutes apart within a two-hour period and measured in accordance with Section 33.1-15-16-04 constitute a violation. An ambient air analyzer designed for monitoring hydrogen sulfide (H_2S) is the method used for determining the concentrations of emissions at the point of measurement, or other instrumental methods as approved by the Department.

Applicable Requirements: NDAC 33.1-15-16-02.1 and NDAC 33.1-15-16-04

Attachment A

NO_x Alternative
Monitoring Plan - EU UEP53

NO_x Alternative Monitoring Plan
Predictive Emission Monitoring System (PEMS)
NO_x Emissions
245 x 10^6 Btu/hr Boiler (EU UEP53)

The permittee shall use the following models/equations to predict NO_x emissions for the 245 x 10^6 Btu/hr boiler (EU UEP53) as noted in the *Operations Monitoring program to Predict NOx Emissions for the Main Boiler (UEP53) at Cargill, Inc. Wahpeton, ND June 11-August 5, 1998 Mostardi Platt document pages 11 and 12.*

1. During startup/shutdown periods (steam flow < 50 kpph), a NO_x emission rate of **0.82 lb/10^6 Btu** shall be recorded and the NO_x lb/hr shall be calculated as follows:

   NO_x lb/hr = (0.82 lb/10^6 Btu) (Heat Input, 10^6 Btu/hr)

2. During other periods, the following equations shall be used to calculate NO_x emissions:

   If steam flow is > 50 kpph and steam flow is ≤ 95 kpph, then:

   NO_x (ppmvd at 3% O_2) = 42.9
   +0.122379199*(Stack Temperatures, °F)
   -0.089137751*(Steam Flow, kpph)
   -4.04837^{-05}*(Fuel Flow, scfh)

   If steam flow is > 95 kpph, then:

   NO_x (ppmvd) = 384.9
   -1.882*(Stack Temperature, °F)
   -20426/(Steam Flow, kpph)
   -1.294*(Steam Flow, kpph)
   +0.826*(Exhaust Temperature, °F)
   +0.00316^{-05}*(Fuel Flow, scfh)
   +12.64*(In Situ Boiler O_2, %)
   +6412258/(Fuel Flow, scfh)

   NO_x (ppmvd at 3% O_2) = NO_x, (ppmvd)* ((20.9-3)/(20.9-(In Situ Boiler O2, %)))

   NO_x (lb/10^6 Btu) = NO_x, (ppmvd at 3% O_2)*(0.001214271)

   NO_x (lb/hr) = NO_x , lb/10^6 Btu*(Gas Heat Input, 10^6 Btu/hr)

Attachment B

Compliance Assurance Monitoring (CAM) Plan
EU CEP1, FEP26, FEP80, MEP12, MEP13 and FEP18

Cargill, Inc.

Compliance Assurance Monitoring (CAM) Plan

Wahpeton, North Dakota
Corn Wet Mill

January 2025

Table of Contents

Compliance Assurance Monitoring (CAM) Plan
Wahpeton, North Dakota
Corn Wet Mill

1.0 Background

Compliance Assurance Monitoring (CAM) is required for affected sources under 40 CFR 64. A CAM plan detailing the applicability and proposed monitoring approach of affected sources is required to be included as part of the 40 CFR 70 (Title V) operating permit renewal process. The Cargill, Inc. Corn Wet Mill facility located in Wahpeton, North Dakota, was issued a renewal Air Pollution Control Title V Permit to Operate No. AOP-28379.

The following bullet items identify the applicability requirements for CAM as applied to individual emission units at a facility.

- Emission unit is located at a major source that is required to obtain a Title V permit;
- Emission unit is subject to emission limitation or standard for an applicable pollutant;
- Emission unit uses a control device to achieve compliance with the emission limitation;
- Potential pre-control emissions of applicable pollutants (with limits) from the emission unit are at least 100 percent of major source amount (100 tons per year); and,
- Emission unit is not otherwise exempt and does not use a Continuous Emission Monitor (CEM) for the applicable pollutant.

2.0 Applicability

Permitted emission units at the Wahpeton Corn Wet Mill facility were evaluated to determine which emission units have specific emission limitations and are equipped with control devices to maintain compliance with the emission limitations. Pre-control potential emissions were estimated for those emission units that were determined to have both an emission limitation and associated control equipment in order to determine if the uncontrolled emissions were greater than 100 percent of the major source amount. The pre-control potential emissions were "back-calculated" using the specific pollutant emission limitation in conjunction with the control equipment efficiency stated in the original Title V permit application for the facility. A complete listing of the Wahpeton Corn Wet Mill emission sources and CAM applicability calculations has been included in Attachment 1.

Based on the CAM applicability calculations, it was determined that the following emission sources and associated control equipment types must be included in the CAM plan.

Table 1. Emission Units Subject to CAM Requirements.

Emission Unit I.D.	Emission Point Number	Emission Unit	Control Equipment	Applicable Pollutant	Pre-Control Emissions (tpy)
CEP1	CEP1	Grain Unloading	Baghouse	PM_{10}	257
FEP26	FEP26	Fiber Pellet Cooler	Cyclone	PM_{10}	152
FEP80	FEP80	Fiber Bin and Pellet Bin	Baghouse	PM_{10}	415
MEP12	MEP12	Steep Tanks	Caustic Scrubber	SO_2	402
MEP13	MEP13	Millhouse Tanks	Caustic Scrubber	SO_2	601
FEP18	FEP18	Feedhouse Tanks	Caustic Scrubber	SO_2	526

As indicated in Table 1, three different control equipment technologies were identified for inclusion in the CAM plan: baghouse, cyclone, and caustic scrubber. The following sections are organized by control technology type and detail the various monitoring approaches and justifications for each control technology type.

3.0 Baghouse

The Wahpeton Corn Wet Mill facility uses baghouses, or fabric filter technology, to collect particulate matter (PM_{10}) generated from material handling operations of grain unloading (CEP1) and fiber/pellet bins (FEP80). Dust laden air is drawn through the fabric filters to capture particles entrained in the air. The fabric filter provides direct filtration as well as acting as a support for the formation and accumulation of a filter cake of particulate matter that provides for very high efficiency filtration.

As the particulate matter accumulates on the filter media and the filter cake is formed, the pressure drop across the fabric filter increases. Although the filter cake increases collection efficiency, it also restricts the airflow and increases energy requirements. For proper continuous operation of the fabric filter, the filter media must be periodically cleaned or replaced. Because these emission units operate at or near ambient temperatures, monitoring airflow temperature is not necessary.

3.1 Monitoring Approach

Table 2 summarizes the monitoring approach for the baghouse control devices associated with emission units CEP1 and FEP80.

Table 2. CEP1 and FEP80 Baghouse Monitoring Approach.

I. Indicators	Indicator No. 1 Differential Pressure	Indicator No. 2 Inspection/Maintenance
A. Measurement Approach	CEP1 is equipped with a Magna Helix pressure drop gauge to continuously monitor operations. FEP80 is equipped with a pressure differential transmitter to continuously monitor operations.	Equipment performance is monitored by observing opacity and differential pressure.
II. Indicator Range	CEP1: 0.075 to 3.0 in. H_2O FEP80: 0.0 to 10.0 in. H_2O	Routine inspections are performed by qualified personnel.
III. Performance Criteria	If the differential pressure is out of the specified operating range corrective action shall be taken according to the manufacturer's specifications and the equipment Operation and Maintenance Manual.	If inspections reveal repair work is needed, maintenance activities are initiated.
A. Representativeness	Differential pressure gauges were installed at representative locations.	NA
B. Monitoring Frequency	Differential pressure is observed once per week. Also, differential pressure drop data is recorded once per 24-hour period as noted in the Title V permit.	Routine observations and maintenance.
C. QA/QC Practices	Annual calibration of differential pressure gauges.	Qualified personnel perform inspections/maintenance.
D. Data Collection	Differential pressure readings will be manually recorded in units of inches of water column. Maintain records.	Maintain records of all maintenance activities performed.
E. Averaging Period	NA	NA

3.2 Justification

The first indicator used to monitor baghouse operation is differential pressure (DP). A DP gauge is used for measurement at each baghouse. Routine weekly observations of DP are performed and recorded by plant personnel to monitor bag performance. As particulate matter accumulates on the filter media and the filter cake is formed, DP across the fabric filter increases. An increase in DP that exceeds the specified indicator range may signal plugging. Maintenance activities may also cause brief excursions from the DP indicator range. Excursions from the DP range will be documented and reported, and corrective action will be initiated if necessary.

The second indicator used to monitor baghouse operation is a visible emissions check. Weekly visible emission checks will be performed by plant personnel who have received Department approved visible emissions training (requires a one-time visible emissions lecture course). Additional visible emission checks will be performed in the event of an excursion from the DP indicator range. If visible emissions are present, this indicates an excursion and corrective action will be initiated. All excursions will be documented and reported.

Compliance testing is not required to establish the pressure drop range required to avoid potential emissions exceedances. DP monitoring as specified by the manufacturer is adequate to have a reasonable assurance of compliance and to ensure that the baghouse continues to operate properly and achieve the desired control efficiency.

4.0 Cyclone

The Wahpeton Corn Wet Mill facility uses a cyclone, or centrifugal collector, to recover product from fiber pellet cooler operations (FEP26) for reprocessing. Air used to cool the fiber pellets is circulated through the cyclone to capture and separate fiber fragments prior to venting the air to the atmosphere.

The process air stream enters near the top of the cyclone and is forced into a downward spiral because of the cyclone's shape and turning vanes. Centrifugal forces and inertia cause the particles to move outward, collide with the outer wall, and then slide downward to the bottom of the cyclone. Near the bottom of the cyclone, the air reverses its downward spiral and moves

upward in a smaller inner spiral. Cleaned air exits from the top and recovered product exits from the bottom of the cyclone.

4.1 Monitoring Approach

Table 3 summarizes the monitoring approach for the cyclone control device associated with emission unit FEP26.

Table 3. FEP26 Cyclone Monitoring Approach.

I. Indicators	Indicator No. 1 Inspection/Maintenance
A. Measurement Approach	Equipment performance is monitored by observing opacity and equipment condition.
II. Indicator Range	Routine inspections are performed by qualified personnel.
III. Performance Criteria	If inspections reveal repair work is needed, maintenance activities are initiated.
A. Representativeness	NA
B. Monitoring Frequency	Routine observations will be conducted weekly.
C. QA/QC Practices	Qualified personnel perform inspections/maintenance.
D. Data Collection	Maintain records of all maintenance activities performed.
E. Averaging Period	NA

4.2 Justification

The indicator used to monitor cyclone operation is inspection and maintenance. Cyclone performance is monitored by routine weekly inspections of equipment and visible emission checks performed by plant personnel who have received Department approved visible emissions

training (requires a one-time visible emissions lecture course). If visible emissions are present, this indicates an excursion and corrective action will be initiated. All excursions and maintenance activities will be documented and reported in a maintenance log.

The cyclone has no moving parts. As described previously the shape of the device promotes a spiral airflow, which causes fiber fragments in the air stream to collide with the sides of the device through centrifugal force and inertia. Proper maintenance of the cyclone as specified by the manufacturer to maintain the physical integrity of the device ensures proper operation and maximum product recovery.

5.0 Caustic Scrubber

The Wahpeton Corn Wet Mill facility uses caustic scrubbers to control emissions of sulfur dioxide (SO_2) generated from steep tank (MEP12), millhouse tank (MEP13) and feedhouse tank (FEP18) operations. Liquid Sodium Bisulfite (40%) or Ammonium Bisulfite (68%) is introduced into the steep tanks as a conditioner (corn softening agent) in preparation for milling. As the product is held in storage tanks at various stages of the milling process, some SO_2 gas is released. Emissions from the storage tanks pass through caustic scrubbers to control SO_2.

The SO_2-laden air steam enters the caustic scrubber, or spray tower, where a slurry mixture of water and a caustic substance absorb and neutralize the SO_2 as the air stream passes through the liquid droplet mixture. The control of SO_2 is dependent primarily on an adequate supply of caustic slurry to oxidize the SO_2.

5.1 Monitoring Approach

Table 4 summarizes the monitoring approach for the caustic scrubber control devices associated with emission units MEP12, MEP13 and FEP18.

Table 4. MEP12, MEP13 and FEP18 Caustic Scrubber Monitoring Approach.

I. Indicators	Indicator No. 1 pH Control	Indicator No. 2 Differential Pressure
A. Measurement Approach	Caustic scrubbers are equipped with pH control to continuously monitor operations and automatic valves for caustic addition..	MEP12, MEP13, and FEP18 are equipped with pressure differential transmitters to continuously monitor operations and sound alarms when acceptable pressure ranges are exceeded.
II. Indicator Range	Level of pH maintained > 5.5	MEP12: 1.5 to 15.0 in. H_2O MEP13: 1.5 to 15.0 in H_2O FEP18: 1.0 to 10.0 in H_2O
III. Performance Criteria	If the pH level is less than the specified value corrective action shall be taken according to the manufacturer's specifications.	If the differential pressure is out of the specified operating range corrective action shall be taken according to the manufacturer's specifications and the equipment Operation and Maintenance Manual.
A. Representativeness	Monitors to record pH levels of the scrubber water were installed at representative locations.	Differential pressure gauges were installed at representative locations.
B. Monitoring Frequency	pH levels of scrubber water are monitored continuously and control automatic valves for caustic addition.	Differential pressure is observed once per week. Alarms are monitored continuously.
C. QA/QC Practices	Annual calibration of pH monitors.	Annual calibration of differential pressure gauges.
D. Data Collection	Continuous pH levels are recorded by the process control system. Excursions below the required pH level	Differential pressure readings will be manually recorded in units of inches of water column. Alarm events will be

	are recorded by plant personnel.	documented. Maintain records.
E. Averaging Period	1-hour	NA

5.2 Justification

The first indicator used to monitor caustic scrubber operation is the pH level of the scrubber water. The pH level of the scrubber water is monitored continuously but averaged in one-hour increments for compliance purposes and used to control automatic valves for caustic addition. As caustic is added to the scrubber water, the pH level increases. If the pH level decreases below a specified indicator value, caustic is automatically added to ensure proper operation and sufficient control of SO_2. Excursions of pH level below the specified indicator value will be documented and reported, and corrective action will be initiated if necessary.

The pH level of the scrubber water for each unit shall be maintained at or above 5.5. This indicator value provides assurance that caustic is being added to the scrubber water – otherwise the scrubber water would quickly become acidified due to absorption of SO_2. Caustic addition to the scrubber water is needed to maintain pH above this level and to ensure adequate control of SO_2.

The second indicator used to monitor caustic scrubber operation is differential pressure (DP). Routine weekly observations of DP are performed and recorded by plant personnel to monitor caustic scrubber performance. As particulate matter accumulates in the scrubber, DP across the scrubber system may increase. An increase in DP that exceeds the specified indicator range may signal plugging or fouling. Excursions from the DP range will be documented and reported, and corrective action will be initiated if necessary.

Compliance testing is not required to establish the pressure drop range required to avoid potential emissions exceedances. DP monitoring as specified by the manufacturer is adequate to have a reasonable assurance of compliance and to ensure that the scrubber continues to operate properly and achieve the desired control efficiency.

August 2008 Changes – Changed MEP 13 to same DP readings as MEP 12 due to identical scrubbers.

March 2009 Changes – Changed MEP 12 & 13 DP to 15.0 per engineer due to adding additional filtrate during last shutdown. Removed FEP 21 because it was included in Permit to Construct (ACP-18101 v1.0)

December 2014 Changes – removed old Title V renewal language on page 1.

June 2019 Changes – Added to Table 2 CEP1 and FEP80 Baghouse Monitoring Approach on p. 3 the verbiage under Section III.B. Performance Criteria Monitoring Frequency that the differential pressure drop data is recorded once per 24-hour period as noted in the Title V permit.

Added an averaging period of 1-hour for pH measurement of MEP12. MEP13 and FEP18 for Table 4. p. 7. Added information to p. 8 under 5.2 Justification section that the three scrubber pH's be averaged in on averaged in 1-hour increments for compliance purposes.

August 2019 Changes – added Ammonium Bisulfite (68%) on p. 6.

September 2024 Changes – updated Title V number and PTC number to correspond with CERIS-ND.

January 2025 Changes – updated visual emissions observation training per ND standard.