



AIR QUALITY CONSTRUCTION PERMIT NEW SOURCE REVIEW (NSR) CLASSIFICATION: MINOR

PERMIT NUMBER: CP26-020

NDWEE ID: 78323

Program ID: AIR 087 00014

Permit Issued To: Trenton Agri Products LLC

Name of Source in Application: Trenton Agri Products LLC

Mailing Address: 36638 US Highway 34, Trenton, Nebraska 69044

Source Location: 36638 US Highway 34, Trenton, Hitchcock County, Nebraska 69044

Permit Description: SIGNIFICANT PERMIT REVISION for an ethanol manufacturing plant producing approximately 73.5 million gallons of denatured ethanol annually

Standard Industrial Classification (SIC) Code: 2869, Industrial Organic Chemicals

North American Industry Classification System (NAICS) Code: 325193, Ethyl Alcohol Manufacturing

Revised or Superseded Construction Permits: This construction permit supersedes Conditions III.(A), III.(C), III.(D), and III.(I) of construction permit CP19-056 (issued January 22, 2020). No other terms or conditions of the original construction permits are being revised or otherwise modified by this document. All other provisions of the original permits are still in effect, and in concert with this permit, constitute the effective construction permit.

Pursuant to Chapter 10 of the Nebraska Air Quality Regulations, the public has been notified by prominent advertisement of this proposed construction of an air contaminant source and the thirty (30) day period allowed for comments has elapsed. This construction permit approves the proposed project as identified in air quality construction permit application #26-020 received June 18, 2026, and any subsequent supplementary facts or corrected information, which the NDWEE considered applicable and incorporated into the permitting documents. Additional details of the proposed revisions, including estimated pollutant emission changes, can be found in the accompanying Fact Sheet.

Compliance with this permit shall not be a defense to any enforcement action for violation of an ambient air quality standard. The permit holder, owner, and operator of the facility shall assure that the installation, operation, and maintenance of all equipment is in compliance with all of the conditions of this permit.

The undersigned issues this permit on behalf of the Director under the authority of Title 129 – Nebraska Air Quality Regulations amended June 28, 2026.

DRAFT

Date

Reuel S. Anderson, Administrator
Permitting and Engineering Division

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ABBREVIATIONS, SYMBOLS, and UNITS OF MEASURE

AP-42	Compilation of Air Pollutant Emission Factors, Volume I, Stationary Point and Area Sources	MW	Megawatt
BACT	Best Available Control Technology	NAAQS	National Ambient Air Quality Standards
bhp	Brake Horsepower	NDWEE	Nebraska Department of Water, Energy, and Environment
BMP	Best Management Practice	NESHAP	National Emission Standards for Hazardous Air Pollutants
Btu	British Thermal Unit	NO ₂	Nitrogen Dioxide
bu	Bushel	NO _x	Nitrogen Oxides
CAA	Clean Air Act	NSPS	New Source Performance Standard
CE	Control Equipment	NSR	New Source Review
CEM	Continuous Emissions Monitor	PAL	Plant-wide Applicability Limit
CEMS	Continuous Emissions Monitoring System	Pb	Lead (chemical abbreviation)
cf	Cubic feet	PbR	Permit-by-Rule
CFR	Code of Federal Regulations	PEMS	Predictive Emissions Monitoring System
CI	Compression Ignition	PM	Particulate Matter
CO	Carbon Monoxide	PM ₁₀	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
CO ₂	Carbon Dioxide	PM _{2.5}	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
CO ₂ e	CO ₂ equivalent	ppb	Parts per Billion
COMS	Continuous Opacity Monitoring System	ppm	Parts per Million
CP	Construction Permit	ppmv	Parts per Million by volume
DDGS	Dry Distillers Grains with Solubles	ppmvd	Parts per Million by volume, dry basis
DGS	Distiller's Grains with Solubles	PSD	Prevention of Significant Deterioration
dscf	Dry Standard Cubic Feet	PTE	Potential to Emit
dscfm	Dry Standard Cubic Feet per Minute	RATA	Relative Accuracy Test Audit
EMIS	Emergency Management Information System	RICE	Reciprocating Internal Combustion Engine
EP	Emission Point	RMP	Risk Management Plan
EPA	Environmental Protection Agency	RNG	Renewable Natural Gas
EQC	Environmental Quality Council	RTO	Regenerative Thermal Oxidizer
ESP	Electrostatic Precipitator	RVP	Reid Vapor Pressure
EU	Emission Unit	scf	Standard Cubic Feet
FDCP	Fugitive Dust Control Plan	SI	Spark Ignition
FGR	Flue Gas Recirculation	SIC	Standard Industrial Classification
FID	Facility Identification Number	SIP	State Implementation Plan
FIP	Federal Implementation Plan	SO ₂	Sulfur Dioxide
FR	Federal Register	SO _x	Sulfur Oxides
ft	Feet	TDS	Total Dissolved Solids
FTIR	Fourier Transform Infrared	TEG	Triethylene Glycol
GHGs	Greenhouse Gases	TO	Thermal Oxidizer
H ₂ S	Hydrogen Sulfide	TO/HRSG	Thermal Oxidizer with Heat Recovery Steam Generator
HAP	Hazardous Air Pollutant	tpy	Tons per year
hp	Horsepower	TRS	Total Reduced Sulfur
hr	Hour	TSP	Total Suspended Particulate Matter
kWh	Kilowatt hours	ULNB	Ultra Low-NO _x Burner
lb	Pound	UST	Underground Storage Tank
LDAR	Leak Detection and Repair	UTM	Universal Transverse Mercator
LNB	Low-NO _x Burner	VHAP	Volatile Hazardous Air Pollutant
MACT	Maximum Achievable Control Technology	VMT	Vehicle Miles Traveled
Mgal	One Thousand gallons	VOC	Volatile Organic Compound
MMBtu	One Million British Thermal Units	WDGS	Wet Distiller's Grains with Soluble
MMscf	One Million Standard Cubic Feet		
MSDS	Material Safety Data Sheet		

SUMMARY OF REVISIONS

The following permit conditions have been significantly revised or updated:

Permit Condition / Summary of Revision	Page
Condition III.(A) – Grain Receiving, Handling, Storage, and Hammermilling III.(A)(1): Added Hammermill #3 to the list of emission units that are controlled by the Hammermill Baghouse (C30). III.(A)(2): Updated PM/PM ₁₀ emission limit for the Hammermill Baghouse (C30) from 0.51 lb/hr to 0.29 lb/hr. Added testing requirements for the Hammermill Baghouse (C30). Removed testing requirements for Grain Handling Baghouse #2 (C25). III.(A)(3): Increased throughput limit for grain receiving from 570,000 tons to 700,084 tons in any period of twelve (12) consecutive calendar months.	A-1
Condition III.(C) – Thermal Oxidizer Stack III.(C): Added testing requirements for the Thermal Oxidizer Stack (S10).	C-1
Condition III.(D) – DDGS Cooling Cyclone III.(D): Updated VOC emission limit for the Cooling Cyclone (P70) from 2.78 lb/hr to 0.97 lb/hr. Added testing requirements for the DDGS Cooling Cyclone (P70).	D-1
Condition III.(I) – Cooling Tower III.(I): Updated maximum circulation rate for the Cooling Tower from 1,200,000 gal/hr to 1,257,600 gal/hr.	I-1

I. STANDARD CONDITIONS

The following Standard Conditions apply to this permit unless otherwise provided for in the Specific Conditions of this permit.

- (A) Regulatory authority:
 - (1) Title 40 Protection of Environment, Code of Federal Regulations that apply to the source including those not currently delegated to Nebraska or not yet included in Title 129; and
 - (2) Title 129 as approved by EPA under 40 CFR Part 52, Subpart CC or 40 CFR Part 70, Appendix A as of the date of issuance of this permit (federally enforceable requirements); and Title 129 as amended June 28, 2026 (state only enforceable requirements).
- (B) The source shall allow the NDWEE, USEPA or an authorized representative, upon presentation of credentials (Neb. Rev. Statute §81-1504; Title 129, Chapter 6, Section 003.11) to:
 - (1) Enter upon the source's premises during reasonable hours where a source subject to this permit is located, emissions-related activity is conducted, or where records must be kept under the conditions of this permit, for the purpose of ensuring compliance with this permit or applicable requirements;
 - (2) Have access to and copy, during reasonable hours, any records that must be kept under the conditions of this permit, for the purpose of ensuring compliance with this permit or applicable requirements;
 - (3) Inspect during reasonable hours any facilities, pollution control equipment, including monitoring and air pollution control equipment, practices, or operations regulated or required under this permit, for the purpose of ensuring compliance with this permit or applicable requirements;
 - (4) Sample or monitor, during reasonable hours, substances, or parameters for the purpose of ensuring compliance with the permit or applicable requirements.
- (C) All requested permit amendments and revisions must adhere to the requirements of Title 129, Chapter 9.
- (D) The following methods may be used to determine compliance with the terms and conditions in this permit (Title 129, Chapter 15, Section 005.08):
 - (1) Any compliance test method specified in the State Implementation Plan;
 - (2) Any test or monitoring method approved for the source in a permit issued pursuant to Title 129, Chapters 3, 4, or Chapter 13, Section 004;
 - (3) Any test or monitoring method provided for in Title 129; or
 - (4) Any other test, monitoring, or information-gathering method that produces information comparable to that produced by any method described in Condition I.(D)(1) through (3).
- (E) Application for review of plans or advice furnished by the Director will not relieve the source of legal compliance with any provision of these regulations or prevent the Director from enforcing or implementing any provision of these regulations (Title 129, Chapter 1, Section 001.06).
- (F) If and when the Director declares an air pollution episode as defined in Title 129, Chapter 2, Section 006.01, the source shall immediately take all required actions listed in Title 129, Appendix II, Paragraph 1.1, 1.2, and 1.3, respectively, until the Director declares the air pollution episode terminated (Title 129, Chapter 2, Section 006.03).

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- (G) Recordkeeping: To ensure compliance with this permit, records shall be maintained as outlined below. Records include electronic and/or paper copies of all application materials, notifications, reports, test protocols, test results, and plans; and, electronic and/or original paper copies of all required monitoring results, measurements, inspections, and observations (Title 129, Chapter 15, Section 005.06; Neb. Rev. Stat. §81-1504):
- (1) All records required by this permit shall be kept for a minimum of five (5) years and shall be clear and readily accessible to NDWEE representatives during an inspection, unless otherwise specified in this permit.
 - (2) Monthly calculations and records required throughout this permit shall be compiled no later than the fifteenth (15th) day of each calendar month and shall include all records and calculations generated through the previous calendar month, unless otherwise specified in this permit (Title 129, Chapter 6, Section 003.03).
 - (3) The source shall keep the following records for each malfunction, start-up and shutdown where emissions were, or may have been, in excess of an emission limitation or standard (Title 129, Chapter 11, Sections 002 and 005; Chapter 15, Sections 006.02, 006.04 and 006.05):
 - (a) The identity of the equipment.
 - (b) Reason for, or cause of, the malfunction, shutdown, or start-up.
 - (c) Duration of period of excess emissions.
 - (d) Date and time of the malfunction, shutdown, or start-up.
 - (e) Physical and chemical composition of pollutants whose emissions are affected by the action.
 - (f) Methods, operating data, and/or calculations used to determine these emissions.
 - (g) Quantification of emissions in the units of the applicable emission control regulation.
 - (h) All measures utilized to minimize the extent and duration of excess emissions during the malfunction, shutdown, and start-up.
 - (4) The source shall keep records of maintenance performed on components of permitted emission units that would affect or potentially affect the emission rate of that unit and on control and monitoring equipment associated with the permitted emission unit (Title 129, Chapter 15, Sections 005.06, 006.06B, and 006.06E).
 - (5) All records of opacity readings, instrument readings, visual equipment inspections, logbook/sheet entries, and any other record of equipment performance shall identify the individual who entered the record, except for continuously generated electronic records.
 - (6) Operation and maintenance manuals, or equivalent documentation, detailing proper operation and maintenance of all permitted emission units, required control equipment, and required monitoring equipment shall be kept for the life of the equipment.
- (H) All permitted emission units, associated emissions conveyances, required control equipment, and required monitoring equipment shall be properly installed, operated, and maintained (Title 129, Chapter 6, Sections 003.01 and 003.13; Chapter 15, Section 005.06; Neb. Rev. Stat. §81-1504 and §81-1506).
- (1) All emissions from emission units using required controls shall be captured and routed through associated emission conveyances to the required control equipment,
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- except for uncaptured emissions described in the permit application and any additional information submitted prior to permit issuance.
- (2) All equipment must be maintained to minimize the amount of uncontrolled pollutants that are-released to the atmosphere. Proper equipment maintenance activities may include repair or replacement, and include, but are not limited to activities in response to the following:
- (a) cracks, holes or gaps,
 - (b) broken, cracked, or otherwise damaged seals or gaskets, and
 - (c) broken, missing or open hatches, access covers, caps, or other closure devices.
- (I) When the source makes physical or operational changes to an emissions unit or associated control equipment that may cause an increase in emissions that makes the original testing not representative of current operating conditions or emissions, the source shall submit a notification of the change. Such notification shall be received by NDWEE within fifteen (15) days after such change. The NDWEE may require performance testing based on review of the specific changes identified in the notification and the resulting potential impact on emissions from the unit(s) and/or performance of the control equipment (Title 129, Chapter 15, Section 005.01).
- (1) This notification requirement applies to emissions units and/or control equipment that meet the following requirements, except as provided in Condition I.(I)(5):
- (a) Emissions from the emissions unit and/or control equipment is subject to an emissions limit;
 - (b) A valid performance test has been conducted for the pollutant to which the emissions limit applies;
 - (c) Changes that may cause emissions to increase or invalidate prior testing include, but are not limited to, increasing the capacity of an emissions unit, changing the operational parameters of any control equipment outside of the range allowed for under this permit that makes the control equipment less efficient, changing the type of scrubber packing, or increasing the inlet pollutant loading of any control equipment.
- (2) For emission units that have had a performance test conducted after January 1, 2012, the source shall make a one-time notification to the NDWEE within fifteen (15) days of when there is a 10% increase in daily production/throughput rate, over the tested rate recorded during the most recent valid performance test unless otherwise specified in this permit. If there are subsequent 10% increases over the rate most recently notified to the NDWEE, the source shall make a one-time notification to the NDWEE of each such subsequent increase. This will not apply to emissions that already have emission rates that are normalized to production and/or throughput rates.
- (3) The notification shall include the date of the changes, a description of the changes made, and an evaluation of the expected impact on emissions from the emissions units and/or control equipment.
- (4) The following definitions apply for purposes of Condition I.(I)(2) above:
- (a) “rate” shall mean the production or throughput of an emissions unit in the same units of production or throughput as the “tested rate” as defined below; and,
 - (b) “tested rate” shall mean the production or throughput rate of an emissions unit as recorded in the most recent valid performance test and reported to the
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NDWEE in the source's written copy of the test results, or test report, documenting the maximum capacity of the unit(s). The tested rate shall be extrapolated to daily. Examples include, but are not limited to, tons per hour to tons per day or gallons per hour to gallons per day.

- (5) The above notification requirements do not apply when compliance with the emission limitation is demonstrated through the use of a CEMS, PEMS or COMS.
- (J) No person shall cause or allow emissions, from any source, which are of an opacity equal to or greater than twenty percent (20%), as evaluated by an EPA approved method, or recorded by a continuous opacity monitoring system operated and maintained pursuant to 40 CFR Part 60 Appendix B except as provided for in Chapter 15, Sections 001.05 or 001.06 (Title 129, Chapter 15, Section 001.04).
- (K) Open fires are prohibited except as allowed by Title 129, Chapter 15, Section 002.
- (L) Particulate Matter – General Requirements (Title 129, Chapter 15, Section 003):
 - (1) The source shall not cause or permit the handling, transporting or storage of any material in a manner which allows particulate matter to become airborne in such quantities and concentrations that it remains visible in the ambient air beyond the property line.
 - (2) The source shall not cause or permit the construction, use, repair or demolition of a building, its appurtenances, a road, a driveway, or an open area without applying all reasonable measures to prevent particulate matter from becoming airborne and remaining visible beyond the property line. Such measures include, but are not limited to, paving or frequent cleaning of roads, driveways, and parking lots; application of dust-free surfaces; application of water; and planting and maintenance of vegetative ground cover.
- (M) Testing:
 - (1) Performance testing if required by this permit or required by the NDWEE shall be completed as follows:
 - (a) The source shall provide the NDWEE a written notice at least thirty (30) days prior to testing to afford the NDWEE an opportunity to have an observer present. The NDWEE may, in writing, approve a notice of less than 30 days. If the testing is pursuant to an underlying requirement contained in a federal rule, the notice provisions of the underlying requirement apply (Title 129, Chapter 15, Section 005.03).
 - (b) The notification required by Condition I.(M)(1)(a) shall include the following (Title 129, Chapter 15, Section 005.03):
 - (i) Facility Name, Address and FID number.
 - (ii) Company Name, Address and Contact Person's name.
 - (iii) Test schedule including date and estimated start time of testing.
 - (iv) List all applicable regulatory requirements that testing is being conducted for (permit condition, MACT, NSPS, etc.).
 - (v) Types of pollutants to be sampled including applicable emission limits and demonstration requirements.
 - (vi) Test methods and documentation of any proposed variations from the specified procedures and reason for variance.

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- (c) Testing shall be conducted according to the methodologies found in Title 129, Chapter 15, Section 005.02, or other NDWEE approved methodologies (Title 129, Chapter 15, Section 005.02).
 - (d) Performance tests shall be performed under those representative (normal) conditions that: represent the range of combined process and control measure conditions under which the facility expects to operate (regardless of the frequency of the conditions); and are likely to most challenge the emissions control measures of the facility with regard to meeting the applicable emission standards, but without creating an unsafe condition. (Title 129, Chapter 15, Section 005).
 - (e) Performance tests shall be conducted for a minimum of three (3) one-hour runs unless another run-time is specified by the applicable Subpart or as deemed appropriate by the NDWEE.
 - (f) The source shall monitor and record the operating parameters for process and control equipment during the performance testing required in the permit.
 - (g) A certified written copy of the test results, signed by the person conducting the test, shall be provided to the NDWEE within sixty (60) days of completion of the test, unless a different time period is specified in the underlying requirements of an applicable federal rule, and will, at a minimum, contain the following items (Title 129, Chapter 15, Section 005.02G):
 - (i) A description of:
 - 1. The operating parameters for the emissions unit during testing. Examples include, but are not limited to, production rates, process throughputs, firing rates of combustion equipment, or fuel usage; and,
 - 2. The operating parameters for the control equipment during testing. Examples include, but are not limited to, baghouse fan speeds, scrubber liquid flow rates, or pressure drop across the control device.
 - (ii) Copies of all data sheets from the test run(s).
 - (iii) A description and explanation of any erroneous data or unusual circumstance(s) and the cause for such situation.
 - (iv) A final conclusion section describing the outcome of the testing.

II. GENERAL CONSTRUCTION PERMIT CONDITIONS

The following General Conditions apply to this permit unless otherwise provided for in the Specific Conditions of this permit.

- (A) The source shall provide the following notifications to the NDWEE:
 - (1) The date construction, reconstruction, or modification commenced as defined in Chapter 1. Notification shall be received by NDWEE no later than thirty (30) days after such date and include a summary description of the event associated with the commencement of construction. The source may use either of the following to determine that construction commenced (Title 129, Chapter 3, Section 003.02):
 - (a) Initiating physical on-site construction activities of a permanent nature that meet the definition of “begin actual construction” or
 - (b) Entering into binding agreements or contractual obligations. If this option is used, the notice shall also include a brief summary of each binding agreement or contractual obligation entered into, the date of the agreement or contract, and why the agreement or contract cannot be cancelled or modified without substantial loss to the source.
 - (2) Notification of the date on which the source or modification first becomes operational, shall be received by the NDWEE within fifteen (15) days after such date (Title 129, Chapter 6, Section 002.01A).
 - (3) Any emissions due to malfunctions, unplanned shutdowns, and ensuing start-ups that are, or may be, in excess of applicable emission limits shall be reported to the NDWEE in accordance with Title 129, Chapter 15, Section 006.05.
- (B) Approval to construct, reconstruct, and/or modify the source will become invalid if a continuous program of construction is not commenced within 18 months after the date of issuance of the construction permit except upon a showing by the source that the complexity of the construction, reconstruction and/or modification requires additional time, or if construction, reconstruction or modification is discontinued for a period of 18 months or more, or if construction, reconstruction and/or modification is not completed within a reasonable period of time (Title 129, Chapter 3, Section 003.02).
- (C) This permit is not transferable to another location, unless otherwise specified in this permit (Title 129, Chapter 3).
- (D) Holding of this permit does not relieve the source from the responsibility to comply with all applicable portions of the Nebraska Air Quality Regulations and any other requirements under local, State, or Federal law. Any permit noncompliance shall constitute a violation of the Nebraska Environmental Protection Act and the Federal Clean Air Act and is grounds for enforcement action or permit revocation (Title 129, Chapter 3, Section 001).
- (E) Any source who failed to submit any relevant facts or who submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information. If the permittee wishes to make changes at the source that will result in change(s) to values, specifications, and/or locations of emission points that were indicated in the permit application (or other supplemental information provided by the permittee and reviewed by the NDWEE in issuance of this permit), the source must notify the NDWEE before the change(s) can be made. In addition, the source must notify the NDWEE if any modification which may result in an adverse change to the air quality impacts predicted by atmospheric dispersion modeling (such as changes in stack

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- parameters or increases in emission rates, potential emissions, or actual emissions). The permittee shall provide all necessary information to verify that there are no substantive changes affecting the basis upon which this permit was issued. Information may include, but not be limited to, additional engineering, modeling, and ambient air quality studies (Title 129, Chapter 3, Sections 002.02B, 002.03B, and 002.03C).
- (F) When requested by the NDWEE, the permittee shall submit completed emission inventory forms for the preceding year to the NDWEE by March 31 of each year (Title 129, Chapter 11).
- (G) If required, performance tests shall be conducted in accordance with Standard Condition I.(M) within sixty (60) days after first reaching the maximum capacity, but not more than 180 days after the start-up of operations of each unit, unless otherwise specified by the NDWEE (Title 129, Chapter 15, Section 005.07).
- (H) If applicable, the following conditions apply to the verification of NAAQS modeling analysis (Title 129, Chapter 2):
- (1) The stack dimensions of the emission points identified in the air dispersion modeling analysis shall be constructed such that the reliability of the air dispersion modeling analysis associated with the permit application is maintained. A site survey or similar documentation containing the as-built stack dimensions, shall be maintained on-site and kept for the life of the source. If the as-built stack dimensions do not meet the criteria used in air dispersion modeling analysis, the permittee shall notify the NDWEE prior to start-up of any emission unit associated with a stack not meeting the above criteria and, if requested by NDWEE, submit a revised air dispersion modeling analysis to NDWEE to ensure that the source will not interfere with the attainment or maintenance of the ambient air quality standards in Title 129 Chapter 2.
 - (2) The source shall sufficiently restrict public access to the source at the ambient air boundary relied upon in the air dispersion modeling analysis for the NAAQS compliance demonstration. A site survey, or similar documentation containing the locations of the boundary vertices, shall be maintained on-site and kept for the life of the source. If the boundary dimensions do not comply with the boundary information in the air dispersion model (plus or minus 25 meters), the permittee shall notify the NDWEE prior to start-up of any emission unit and, if requested, submit a revised air dispersion modeling analysis to the NDWEE to ensure that the source will not interfere with the attainment or maintenance of the ambient air quality standards in Title 129 Chapter 2.
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III. SPECIFIC CONDITIONS FOR AFFECTED EMISSION POINTS

(A) Specific Conditions for Grain Receiving, Handling, Storage, and Hammermilling

- (1) Permitted Emission Points: The source is permitted to construct the emission points and associated emission units identified in the following table:

Emission Point ID#	Required Control Equipment ID# and Description	Emission Unit Description
C20	C20: Grain Handling Baghouse #1	Grain Receiving Station (Truck) – 15,000 bushels/hr
		One 119,000-bushel capacity Storage Bin (Bin #1)
		One 119,000-bushel capacity Storage Bin (Bin #2)
		Grain Elevators #1 & #2
		Associated conveyors and transfer points
C30	C30: Hammermill Baghouse	One 5,000-bushel capacity Grain Day Bin
		Hammermill #1
		Hammermill #2
		Hammermill #3
		Associated conveyors and transfer points
C25	C25: Grain Handling Baghouse #2	Grain Receiving Station (Truck) – 15,000 bushels/hr
		One 368,926-bushel capacity Grain Silo
		Associated conveyors and transfer points

- (2) Emission Limitations and Testing Requirements:

Pollutant emission rates from each emission point identified in the table below shall not exceed the permitted limits. Performance testing, if required, shall be conducted in accordance with Condition I.(M) and Condition II.(G).

Emission Point ID#	Pollutant	Permitted Limit	Averaging Period	Basis for Permit Limit	Performance Testing Required (Yes/No)
C20	PM/PM ₁₀ ^{[1] [2]}	0.87 lb/hr	Three 1-hr test runs or test method average	Chapter 3	No
C30	PM/PM ₁₀ ^{[1] [2]}	0.29 lb/hr	Three 1-hr test runs or test method average	Chapter 3	Yes
C25	PM ^[1]	0.69 lb/hr	Three 1-hr test runs or test method average	Chapter 3	No ^[3]
	PM ₁₀ ^[2]	0.69 lb/hr			
	PM _{2.5} ^[2]	0.69 lb/hr			

^[1] PM is filterable only

^[2] PM₁₀ includes both filterable and condensable

^[3] Initial performance testing was completed on July 28, 2020.

- (3) Operational and Monitoring Requirements and Limitations:

- (a) The C20 baghouse dust collector shall be operated whenever the grain is received, elevated, conveyed into and out of the grain storage bins, moved by associated conveyors and transfer points. The grain unloading areas shall have a canopy or other collection device to capture particulate matter emissions. The C30 baghouse dust collector shall be operated whenever the grain is processed through the hammermills, and transported by associated conveyors and transfer points to the mixer (P50). (Chapters 2, 3, and 15)

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- (b) The C25 baghouse dust collector shall be operated whenever the grain is received, elevated, conveyed into and out of the Grain Silo, moved by associated conveyors and transfer points. (Chapter 3)
 - (c) Operation and maintenance of each baghouse (C20, C25, and C30) shall be in accordance with the following requirements: (Chapters 3 and 15)
 - (i) The baghouse shall be operated and be controlling emissions at all times when the associated emission units are in operation.
 - (ii) The baghouse shall be equipped with an operational pressure differential indicator. Pressure differential indicator readings shall be recorded at least once each day that the associated baghouse is operating.
 - (iii) Baghouse filter bags are to be inspected and/or replaced as often as necessary to ensure proper operation or more frequently as indicated by pressure differential indicator readings or other indication of bag failure.
 - (iv) Observations at least once each day during daylight hours of baghouse operation shall be conducted to determine whether there are visible emissions from the stack, leaks, noise, or other indications that corrective action is needed. If corrective action is required, it shall occur immediately.
 - (v) The owner or operator shall maintain an on-site inventory of spare bags of each type used to ensure rapid replacement in the event of bag failure.
 - (d) Grain receiving shall not exceed 700,084 tons in any period of twelve (12) consecutive calendar months. (Chapter 3)
- (4) Applicable NSPS, NESHAP, and MACT Requirements:
- The NDWEE has not identified any NSPS, NESHAP, or MACT requirements that apply to the emission points or emission units listed in Condition III.(A)(1).
- (5) Reporting and Recordkeeping Requirements:
- The source shall maintain the following:
- (a) Records documenting the date, time, and pressure differential reading for each day the associated baghouse is in operation.
 - (b) Filter replacement records including the date the filter replacement occurred and the type of filter installed.
 - (c) Records documenting the date, time, observations, and corrective actions taken for each day the associated baghouse is in operation.
 - (d) The tons of grain received for each period of twelve (12) consecutive calendar months to demonstrate compliance with Condition III.(A)(3)(d).
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(C) Specific Conditions for Thermal Oxidizer Stack

- (1) Permitted Emission Points: The source is permitted to construct the emission points and associated emission units identified in the following table at the capacities and using the fuel types listed:

Emission Point ID#	Required Control Equipment ID# and Description	Emission Unit (EU) / EP ID# and Description	Maximum Capacity	Permitted Fuel Type
S10	C10: Thermal Oxidizer	Pre-Fermentation Equipment: (Mixer, Slurry Tank, Receiver Tank, 2 Liquid Tanks, and 1 Yeast Tank)	-	-
		Distillation Equipment: (Beer Column, Side Stripper, Rectifier Column, Molecular Sieve, and 3 Condensers)	-	-
		P10: One DDGS Dryer	30.0 MMBtu/hr	Natural Gas
		All Centrifuges & Evaporators	-	-
		C10: Thermal oxidizer with a waste heat recovery boiler	99.0 MMBtu/hr	Natural Gas

(2) Emission Limitations and Testing Requirements:

- (a) Pollutant emission rates from each emission point identified in the table below shall not exceed the permitted limits. Performance testing, if required, shall be conducted in accordance with Condition I.(M) and Condition II.(G).

Emission Point ID#	Pollutant	Permitted Limits	Averaging Period	Basis for Permit Limit	Performance Testing Required (Yes/No)
S10	PM/PM ₁₀ ^[1]	5.0 lb/hr	Three 1-hr test runs or test method average	Chapter 3	Yes
	CO	9.10 lb/hr	Three 1-hr test runs or test method average	Chapter 3	Yes
	VOC	1.82 lb/hr ^[2]	Three 1-hr test runs or test method average	Chapter 3	Yes
	HAP	-	Speciation and Quantification of HAP composition at outlet	Chapter 13	Yes
	Acetaldehyde	0.37 lb/hr ^[3]	Three 1-hr test runs or test method average	Chapter 3	Yes ^[4]

^[1] PM₁₀ includes both filterable and condensable

^[2] Expressed as weight of VOC

^[3] S10 and P70 have a combined acetaldehyde limitation of 0.37 lb/hr as prescribed in Condition IV.

^[4] Performance testing of the TO/HRSGs (EP-S10) and DDGS Cooler (EP-P70) shall be conducted every three (3) years, unless otherwise specified in the operating permit, and the testing must be conducted concurrently and in accordance with Conditions I.(M), III.(C)(2)(b) and III.(D)(2)(b).

- (b) A performance test must be conducted every three (3) years, unless otherwise specified in the operating permit, in order to demonstrate compliance with the emissions limitations listed in Condition III.(C)(2)(a): (Chapter 15)

- (i) Performance testing on S10 for Acetaldehyde required by this condition shall be conducted concurrently with Acetaldehyde testing required for emission point, P70. (Chapter 15).
 - (c) In order to demonstrate compliance with Condition III.(C)(2)(a) and to verify the assumptions used in the permit application, the source shall conduct performance tests for VOC and HAP on S10 under two scenarios: (Chapters 3 and 15)
 - (i) S10 operating with the DDGS Dryer (P10) off, and
 - (ii) S10 operating with the DDGS Dryer (P10) on
- (3) Operational and Monitoring Requirements and Limitations:
 - (a) Emission from the pre-fermentation equipment, distillation equipment, DDGS dryer, centrifuges, and evaporators are controlled by the thermal oxidizer (identified as C10). (Chapters 3 and 13)
 - (b) Operation of the thermal oxidizer with a waste heat recovery boiler shall be in accordance with the following requirements (Chapters 3 and 13):
 - (i) The thermal oxidation system shall control emissions at all times when the associated emission units are in operation.
 - (ii) The thermal oxidizer shall be equipped with a thermocouple or equivalent device capable of continuously monitoring the temperature inside the thermal oxidizer. The thermocouple shall be calibrated in accordance with manufacturer's instructions.
 - (iii) Routine observations (at least once each day when the thermal oxidizer is in operation) shall be conducted to determine whether there are visible emissions from the stack, atypical operating parameters, leaks or noise, or other indications, which may necessitate corrective action. Corrective action shall be taken immediately if necessary.
 - (iv) The one-hour average operating temperature of the thermal oxidation system shall be maintained at a minimum temperature of 1,400°F. Upon approval by the Director, the 1,400°F limitation may be replaced with an alternate minimum operating temperature limitation based on results of the most recent performance test that still demonstrate compliance with Condition III.(C)(2)(a).

(4) Applicable NSPS, NESHAP, and MACT Requirements:

The following standards apply to Thermal Oxidizer with Waste Heat Recovery Boiler (C10):

Applicable Standard	Title	Rule Citation
NSPS, Subpart A	General Provisions	Chapter 12, Sec. <u>001.01</u> 40 CFR 60.1
NSPS, Subpart Dc	Small Industrial, Commercial, Institutional Steam Generation Units	Chapter 12, Sec. <u>001.52</u> 40 CFR 60.40c

(5) Reporting and Recordkeeping Requirements:

The source shall maintain the following:

- (a) Records documenting when routine observations were performed with a description including thermocouple readings and any atypical observations.

- (b) Records documenting when routine maintenance and preventive actions were performed with a description of the maintenance and/or preventive action performed.
- (c) Records documenting equipment failures, malfunctions, or other variations, including time of occurrence, remedial action taken, and when corrections were made.
- (d) Notifications and recordkeeping as required by 40 CFR 60.7.
- (e) Reporting and recordkeeping as required by 40 CFR 60.48c.

(D) Specific Conditions for DDGS Cooling Cyclone

- (1) Permitted Emission Points: The source is permitted to construct the emission points and associated emission units identified in the following table:

Emission Point ID#	Required Control Equipment ID# and Description	Emission Unit (EU) / EP ID# and Description
P70	P70: Cooling Cyclone	DDGS Cooler
		DDGS Storage
		DDGS Loadout

- (2) Emission Limitations and Testing Requirements:

- (a) Pollutant emission rates from each emission point identified in the table below shall not exceed the permitted limits. Performance testing, if required, shall be conducted in accordance with Condition I.(M) and Condition II.(G).

Emission Point ID#	Pollutant	Permitted Limits	Averaging Period	Basis for Permit Limit	Performance Testing Required (Yes/No)
P70	PM/PM ₁₀ ^[1]	1.03 lb/hr	Three 1-hr test runs or test method average	Chapter 3	Yes
	VOC	0.97 lb/hr ^[2]	Three 1-hr test runs or test method average	Chapter 3	Yes
	HAP	-	Speciation and Quantification of HAP composition at outlet	Chapter 13	Yes
	Acetaldehyde	0.37 lb/hr ^[3]	Three 1-hr test runs or test method average	Chapter 3	Yes ^[4]

^[1] PM₁₀ includes both filterable and condensable

^[2] Expressed as weight of VOC

^[3] P70 and S10 have a combined acetaldehyde limitation of 0.37 lb/hr as prescribed in Condition IV.

^[4] Performance testing of the TO/HRSGs (EP-S10) and DDGS Cooler (EP-P70) shall be conducted every three (3) years, unless otherwise specified in the operating permit, and the testing must be conducted concurrently and in accordance with Conditions I.(M), III.(C)(2)(b) and III.(D)(2)(b).

- (b) A performance test must be conducted every three (3) years, unless otherwise specified in the operating permit, in order to demonstrate compliance with the emissions limitations listed in Condition III.(D)(2)(a): (Chapter 15)
- (i) Performance testing on P70 for Acetaldehyde required by this condition shall be conducted concurrently with Acetaldehyde testing required for emission point, S10. (Chapter 15).
- (3) Operational and Monitoring Requirements and Limitations:
- (a) Emissions from the DDGS loadout shall be controlled by the DDGS Cooling Cyclone (P70). (Chapters 3 and 13)
- (b) Operation of the cyclone shall be in accordance with the following requirements (Chapter 3)
- (i) The cyclone shall be operated and be controlling emissions at all times when DDGS is being produced or loaded out.

- (ii) Routine observations (at least once each day when any of the cyclone dust collectors are in operation) shall be conducted to determine whether there are visible emissions from the stack, leaks or noise, atypical operating parameter, or other indications, which may necessitate corrective action. Corrective action shall be taken immediately if necessary.
 - (iii) Collected waste material from the cyclone shall be handled, transported, and stored in a manner that ensures compliance with General Condition I.(L).
- (4) Applicable NSPS, NESHAP, and MACT Requirements:

The NDWEE has not identified any NSPS, NESHAP, or MACT requirements that apply to the emission points or emission units listed in Condition III.(D)(1).
- (5) Reporting and Recordkeeping Requirements:

The source shall maintain the following:

 - (a) Records documenting when routine observations were performed with a description including readings of operating parameters and any atypical observations.
 - (b) Records documenting when routine maintenance and preventive actions were performed with a description of the maintenance and/or preventive action performed.
 - (c) Records documenting equipment failures, malfunctions, or other variations, including time of occurrence, remedial action taken, and when corrections were made.

(I) Specific Conditions for Cooling Tower

- (1) Permitted Emission Points: The source is permitted to construct the emission points and associated emission units identified in the following table with the number of cooling tower cells and at the circulation rate listed:

Emission Unit Description	Maximum Circulation Rate (gal/hr)
Cooling Tower	1,257,600

- (2) Emission Limitations and Testing Requirements:

The cooling tower identified above is not subject to any emissions limitations. Testing shall be conducted to ensure compliance with the TDS limitation established and is discussed below.

- (3) Operational and Monitoring Requirements and Limitations:

- (a) Drift loss from each cooling tower shall be limited to 0.005 percent. Verification of drift loss shall be by manufacturer's guarantee. Manufacturer's drift loss guarantee shall be kept on site and readily available to NDWEE representatives, upon request, for the life of the unit. (Chapter 3)
- (b) TDS concentration of the cooling water in each cooling tower shall not exceed 2,500 ppm and shall not exceed an average of 2,000 ppm. A representative TDS sample shall be collected and tested from each cooling tower a minimum of once per calendar month. The test method used to determine TDS concentration shall be in accordance with an EPA approved method and be documented. (Chapter 3)

- (4) Applicable NSPS, NESHAP, and MACT Requirements:

The NDWEE has not identified any NSPS, NESHAP, or MACT requirements that apply to the emission points or emission units listed in Condition III.(I)(1).

- (5) Reporting and Recordkeeping Requirements:

- (a) The rate of cooling water circulated in the cooling tower for each calendar month and for each period of twelve (12) consecutive calendar months. (Condition III.(I)(1))
- (b) Total dissolved solids (TDS) concentration in cooling water for each sampling event month and for each period of twelve (12) consecutive calendar months. (Condition III.(I)(3)(b))