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Governor

DEPARTMENT OF ENVIRONMENTAL QUALITY

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CONSTRUCTION PERMIT

PERMIT TO CONSTRUCT AN AIR CONTAMINANT SOURCE IS HEREBY ISSUED TO:

Nebraska BioClean – Mead, LLC
1344 County Road 10
Mead, NE 68041

FOR THE SPECIFIC CONSTRUCTION OF:

An Ethanol Manufacturing Facility (Dry Mill Process)

TO BE LOCATED AT:

1344 County Road 10
Mead, Saunders County, NE 68041

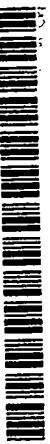
Pursuant to Chapter 14 of the Nebraska Air Quality Regulations, the public has been notified by prominent advertisement of this proposed construction of an air contaminant source and the thirty (30) day period allowed for comments has elapsed. This Construction Permit approves the proposed construction of a new ethanol manufacturing facility to produce approximately 24.1 million gallons per year of denatured ethanol and 111,325 tons per year of wet cake.

Compliance with this permit shall not be a defense to any enforcement action for violation of an ambient air quality standard.

This permit is issued with the following conditions:

General Conditions

- I. This permit is not transferable to another source or location. (Title 129, Chapter 17)
- II. Holding of this permit does not relieve the owner/operator of 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. (Title 129, Chapter 41)
- III. Any applicant who fails to submit any relevant facts or who has 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 source wishes to make changes at the facility 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 applicant and reviewed by the Department in issuance of this permit), the source must receive approval from the Department before the change(s) can be made. In addition, any



modification which may result in an adverse change to the air quality impacts predicted by atmospheric dispersion modeling (such as changes in stack parameters or increases in emission rates, potential emissions, or actual emissions) shall have prior approval from the Department. The source 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 17, Section 006, 007, & 008)

- IV. 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, if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable period of time. (Title 129, Chapter 17, Section 012)
- V. The owner/operator of the source shall provide a notification to the Department of the date of construction, reconstruction or modification commenced, postmarked no later than 30 days after such date, and of the actual date of initial startup of operation, postmarked within 15 days after such date. (Title 129, Chapter 17, Section 012 & Chapter 7, Section 002.03)
- VI. The permittee shall allow the Department, EPA or an authorized representative, upon presentation of credentials to (Title 129, Chapter 8, Section 012.02):
 - (A) Enter upon the permittee's premises at reasonable times where a source subject to this permit is located, emissions-related activity is conducted or records are kept, for the purpose of ensuring compliance with the permit or applicable requirements;
 - (B) Have access to and copy, at reasonable times, any records, for the purpose of ensuring compliance with the permit or applicable requirements;
 - (C) Inspect at reasonable times any facilities, pollution control equipment, including monitoring and air pollution control equipment, practices, or operations, for the purpose of ensuring compliance with the permit or applicable requirements;
 - (D) Sample or monitor at reasonable times substances or parameters for the purpose of ensuring compliance with the permit or applicable requirements.
- VII. Applicable regulations: Title 129 - Nebraska Air Quality Regulations as amended February 7, 2004.
- VIII. This permit may contain abbreviations and symbols of units of measure, which are defined in 40 CFR Part 60.3. Other abbreviations may include, but are not limited to, the following: Anaerobic Digester (AD), Best Available Control Technology (BACT), Carbon Dioxide (CO₂), Code of Federal Regulations (CFR), Compilation of Air Pollutant Emission Factors, Volume I, Stationary Point and Area Sources (AP-42), Carbon Monoxide (CO), Construction Permit (CP), Hazardous Air Pollutant (HAP), Maximum Achievable Control Technology (MACT), National Ambient Air Quality Standards (NAAQS), New Source Performance Standards (NSPS), Nitrogen Oxides (NO_x), Particulate Matter (PM), Particulate Matter less than or equal to 10 micrometers (PM₁₀), part per million (ppm), Prevention of Significant Deterioration (PSD), Sulfur Dioxide (SO₂), Total Dissolved Solids (TDS), Total Reduced Sulfur (TRS), Volatile Organic Compounds (VOC), Wet Distillers Grains With Solubles (WDGS).

- IX. Open fires are prohibited except as allowed by Title 129, Chapter 30.
- X. The source shall not cause or permit fugitive particulate matter to become airborne in such quantities and concentrations that it remains visible in the ambient air beyond the property line. (Title 129, Chapter 32)
- XI. 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 37)
- XII. If and when the Director declares an air pollution episode as defined in Title 129, Chapter 38, Sections 003.01B, 003.01C, or 003.01D, the source shall immediately take all required actions listed in Title 129, App. I until the Director declares the air pollution episode terminated.

Specific Conditions

- XIII. Specific terms and conditions of this permit:

(A) The following conditions apply to: ANAEROBIC DIGESTION/STEAM GENERATION

- (1) The source is permitted to construct two 54 MMBtu/hr boilers, an anaerobic digester (AD) unit consisting of 2 anaerobic digesters, and an enclosed flare. The boilers, AD unit and enclosed flare shall be properly installed, operated, and maintained. Manufacturer's specifications and instructions shall be kept on site and readily available to Department representatives.
- (2) The combined heat input for the boilers shall not exceed 65 MMBtu/hr (24-hour average). (Title 129, Chapters 4 and 19)
- (3) The heat input for each boiler shall be calculated each day using the following equation:

$$HI = (SP) * (BE) / (24 \text{ hrs/day})$$

where,

HI = 24-hour average heat input (MMBtu/hr)

SP = steam production rate (lb/day)

BE = average boiler efficiency, expressed in terms of heat input rate per pound of steam produced (MMBtu/lb)

- (4) The source shall measure and record the steam production rate for each boiler on a daily basis.
- (5) Biogas, natural gas and distillate fuel oil shall be the only fuels combusted in the boilers. (Title 129, Chapters 19, 20 and 24)
- (6) Sulfur content of the distillate fuel oil shall be limited to 0.3 weight percent. (Title 129, Chapters 4 and 24)

- (7) The source shall use the enclosed flare or the boilers to combust the biogas exiting the AD unit and meet the following requirements: (Title 129, Chapter 4)
- (a) The flare or boilers shall be used to combust biogas at all times biogas is being produced by the AD unit.
 - (b) The biogas piping from the AD unit outlet to the flare and boilers shall be equipped with a continuous TRS monitor which complies with the requirements of 40 CFR 60.13, including the requirements of 40 CFR 60 Appendix B Performance Specification 5 and Appendix F, unless written approval is obtained from the Department.
 - (c) The biogas piping from the AD unit outlet to the flare and boilers shall be equipped with an operational flow meter to record biogas flow rate that complies with the requirements of 40 CFR 60.13, including the requirements of 40 CFR 60 Appendix B Performance Specification 6 and Appendix F, unless written approval is obtained from the Department.
 - (d) The flare shall be operated with a flame present whenever biogas is flowing to the unit. A thermocouple or equivalent device connected to a data recorder capable of continuously monitoring the presence of a flame shall be installed. The monitoring device readings shall be recorded at least once per hour. The monitoring device shall be equipped with an alarm to notify plant personnel of biogas flow to the flare when no combustion is taking place. The monitoring device shall be properly installed, operated, calibrated and maintained. Manufacturer's instructions shall be kept on site and readily available to Department representatives.
- (8) TRS quantity in the AD unit outlet to the flare and boilers shall not exceed 12.0 lb/hr (24-hour average) as demonstrated with the continuous TRS monitor required in Condition XIII.(A)(7)(b) and flow meter required in Condition XIII.(A)(7)(c). (Title 129, Chapters 4 and 19)
- (9) The boilers shall comply with the requirements of New Source Performance Standards (NSPS) in 40 CFR 60, Subparts A and Dc (Title 129, Chapter 18, Sections 001.01 and 001.52). The requirements of Subparts A and Dc include, but are not limited to, the following:
- (a) The owner or operator shall submit notification of the date of construction, anticipated startup, and actual startup, as provided by 40 CFR 60.7. This notification shall include the design heat input capacity of the affected facility and identification of fuels to be combusted, and the annual capacity factor, as defined in 40 CFR 60.41c, at which the source anticipates operating the unit based on all fuels fired and based on each individual fuel fired.
 - (b) All distillate fuel oil combusted shall comply with the specification for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D396-78. {40 CFR 60.41c}

- (c) When firing oil, visible emissions from the boilers are limited to 20 percent opacity (6 minute average), except for one 6-minute period per hour of not more than 27 percent opacity. {40 CFR 60.43c(c)} This standard applies at all times when oil is fired, except during periods of start-up, shutdown, or malfunction. {40 CFR 60.43c(d)}
 - (d) Semi-annual reports shall be submitted to the Department in accordance with 40 CFR 60.48c(d) and (j). These reports shall include the fuel supplier certifications and a certified statement signed by the owner or operator of the affected facility that the records of fuel supplier certifications submitted represent all of the fuel oil combusted for the quarter. {40 CFR 60.48c(e)(11)}
 - (e) The source shall record and maintain records of the amounts of each fuel combusted during each day in the boilers unless EPA Region VII approves an alternative record-keeping frequency. {40 CFR 60.48c(g)}.
- (10) Compliance with the sulfur content limit in Condition XIII.(A)(6) and the fuel oil specification in Condition XIII.(A)(9)(b) may be demonstrated with fuel supplier certifications. These certifications shall include the following for each distillate fuel oil delivery:
- (a) The name of the fuel oil supplier. {CFR 60.48c(f)(1)(i)}
 - (b) A statement from the fuel oil supplier that the oil delivered complies with the specification for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D396-78. {40 CFR 60.48c(f)(1)(ii)}
 - (c) The sulfur content of the fuel oil and the method used to determine the content.
- (11) Within 60 days after reaching the maximum capacity but not more than 180 days after the start-up of operations, a performance test and/or analytical testing shall be conducted for at least one of the two boilers in accordance with Condition XIII.(P) to determine the following. (Title 129, Chapter 34)
- (a) NO_x emissions (lb/hr) from the boiler during combustion of biogas. The performance test shall be conducted while the boiler is operating at full capacity.
 - (b) Ammonia (NH₃) content of biogas combusted during the NO_x performance test required in Condition XIII.(A)(11)(a).
 - (c) Average boiler efficiency, expressed in terms of heat input rate per pound of steam produced (Btu/lb). Boiler efficiency shall be determined for high load (90% of capacity), medium load (50% of capacity) and low load (25% of capacity) conditions. The average boiler efficiency shall be the arithmetic average of the boiler efficiencies at high, medium and low loads.

(B) The following conditions apply to: GRAIN HANDLING AND MILLING

- (1) The grain handling operations consist of one grain receiving station, storage silo(s) with a collective permanent storage capacity of less than one million bushels, one elevator leg, and associated conveyors. The dump pit, located inside an enclosed building, and associated grain transfer points, and the silo vent(s) are controlled by the grain receiving baghouse (EP-1). The grain milling operations consist of one elevator leg, one grain cleaner (vibratory screen), one hammer mill, and associated conveyors. The grain milling operations are controlled by the hammer mill baghouse (EP-3).
- (2) PM/PM₁₀ emissions from all grain handling and milling operations, as identified in Condition XIII.(B)(1), shall be captured and controlled by the fabric dust collectors (baghouses) listed. The operation of each fabric dust collector shall be in accordance with the following requirements: (Title 129, Chapters 4, 20 and 34)
 - (a) The fabric dust collectors shall be operated at all times when the associated emission units are in operation.
 - (b) The fabric dust collectors shall be properly installed, operated, and maintained. Manufacturer's specifications and instructions shall be kept on site and readily available to Department representatives.
 - (c) Each fabric dust collector shall be equipped with an operational pressure differential indicator. The pressure differential indicator shall be properly installed, operated and maintained. Manufacturer's instructions shall be kept on site and readily available to Department representatives. The pressure differential readings shall be recorded at least once each day that the associated fabric dust collector is operating.
 - (d) Fabric dust collector filter bags/cartridges are to be inspected and/or replaced according to the manufacturer's recommendations or more frequently as indicated by pressure differential readings.
 - (e) Routine observations (at least once each day of dust collector operation) shall be conducted to determine whether there are visible emissions from the stack, leaks or noise, atypical pressure differential readings, or other indications which may necessitate corrective action. Corrective action shall be taken immediately if necessary.
 - (f) Collected waste material from the fabric dust collectors shall be handled, transported, or stored in a manner that ensures compliance with Condition X.
- (3) PM₁₀ emissions from the grain receiving baghouse (EP-1) and hammer mill baghouse (EP-3) shall not exceed the following limits. (Title 129, Chapters 4 and 19)
 - (a) EP-1: 0.62 pounds per hour
 - (b) EP-3: 0.19 pounds per hour

- (4) In order to demonstrate compliance with Condition XIII.(B)(3), the source shall conduct a performance test for PM₁₀ on each of the fabric dust collectors (EP-1 and EP-3) while operating at full capacity within 60 days after reaching the maximum capacity but not more than 180 days after the start-up of operations. The performance test shall be conducted in accordance with Condition XIII.(P). (Title 129, Chapter 34)
- (C) The following conditions apply to: FERMENTATION AND DISTILLATION OPERATIONS
- (1) The fermentation and distillation operations consist of a mash mix tank, cookers, a liquefaction tank, yeast tanks, four fermenters, a beerwell, a beer stripper, a distillation column, molecular sieves and stillage tanks.
- (2) VOC and HAP emissions from the fermentation and distillation operations shall be controlled by a scrubber (EP-6). (Title 129, Chapters 19 and 27)
- (3) The scrubber shall be designed to remove VOC and HAP emissions and shall comply with a VOC emission limitation of 7.0 lb/hr (Title 129, Chapter 19)
- (4) The operation of the scrubber shall be in accordance with the following requirements (Title 129, Chapter 34):
- (a) The scrubber shall be operated at all times the associated emission units are in operation.
- (b) The scrubber shall be properly designed, installed, operated, and maintained. Manufacturer's specifications shall be kept on site and readily available to Department representatives.
- (c) The scrubber shall be inspected at least once each day the scrubber is in operation to determine whether there is any atypical operating parameters, leaks, noise, or other indications of poor performance requiring corrective action. Corrective action shall be taken immediately if necessary.
- (d) The scrubber shall be equipped with operating parameter indicators, including, but not limited to, scrubbing liquid flow rate and pressure differential. The indicators shall be properly installed, operated, calibrated and maintained. Manufacturer's instructions shall be kept on site and readily available to Department representatives. Operating parameter readings shall be recorded at least once each day the scrubber is in operation.
- (5) Within 60 days after reaching the maximum capacity but not more than 180 days after the start-up of operations, the source shall conduct performance test to determine VOC and HAP emissions and the control efficiency of the scrubber. Testing shall be conducted during conditions that are representative of worst-case emission rates and/or maximum production rates. The performance test shall be conducted in accordance with Condition XIII.(P) and shall include speciation and quantification of the HAP composition of the emissions from the scrubber. VOC emissions shall be expressed as weight of VOC. (Title 129, Chapter 34)

- (6) The source shall perform analytical testing within 60 days after reaching the maximum capacity but not more than 180 days after the start-up of operations to determine the HAP content of the anhydrous ethanol produced. The performance test shall be in accordance with Condition XIII.(P). (Title 129, Chapter 34)
- (D) The following conditions apply to: WET CAKE STORAGE AND LOADOUT
- (1) The source shall conduct analytical testing within 60 days after reaching the maximum capacity but not more than 180 days after the start-up of operations to determine the VOC, HAPs and liquid content of the wet cake (WDGS) to verify the assumptions used to estimate emissions from the wet cake storage pile, in accordance with Condition XIII.(P). (Title 129, Chapter 34)
- (E) The following conditions apply to: STORAGE TANKS
- (1) The storage tanks consist of the aboveground tanks listed in Table E-1.

Table E-1: Storage Tanks

Tank ID	Volume (Gallons)	Material Stored	Type of Tank
TK-801 A	≤22,600	Anhydrous Ethanol	Fixed Roof
TK-801B	≤22,600	Anhydrous Ethanol	Fixed Roof
TK-803	≤22,600	Off-spec Ethanol	Fixed Roof
TK-806	≤22,600	Denaturant (Gasoline)	Internal Floating Roof
TK-810	≤535,830	Denatured Ethanol	Internal Floating Roof
TK-899	≤21,193	Distillate Fuel Oil	Fixed Roof

- (2) The requirements from Title 129, Chapter 18, Section 001.01 – General Provisions – Subpart A, and Section 001.62 – Volatile Organic Liquid Storage Vessels (including petroleum storage vessels) – Subpart Kb, apply to the storage tanks specified in Condition XIII.(E)(1).
- (a) Tanks TK-808 and TK-810 shall each be equipped with an internal floating roof in accordance with the specifications in 40 CFR 60.112b(a)(1).
- (b) Each internal floating roof tank shall be visibly inspected and repaired in accordance with testing and procedures per 40 CFR 60.113b(a).
- (c) The owner or operator of the affected tanks shall report and keep records as described in 40 CFR 60.115b – Reporting and record keeping requirements and in 40 CFR 60.116b – Monitoring of operations.
- (F) The following conditions apply to: ETHANOL PRODUCT LOADOUT
- (1) The source shall use submerged loading when transferring ethanol product from the storage tank. (Title 129, Chapter 19 and 27)
- (2) The ethanol loadout facility shall be equipped with a vapor collection and control system that collects and routes the vapors generated from ethanol product loadout to a vapor combustion unit (EP-12). The operation of the vapor collection and

control system shall be in accordance with the following requirements: (Title 129, Chapters 19, 27 and 34)

- (a) The vapor collection and control system shall be operated whenever the ethanol loadout facility is in operation.
- (b) The vapor collection and control system shall have a minimum capture efficiency of 90% and a minimum control efficiency of 95%. Compliance with this condition may be demonstrated by compliance with Conditions XIII.(F)(2)(c) and (d).
- (c) The vapor collection and control system shall be properly designed, installed, operated, and maintained. Manufacturer's specifications and instructions shall be kept on site and readily available to Department representatives.
- (d) The vapor combustion unit shall be operated with a flame present whenever vapor is flowing to the unit. A thermocouple or equivalent device connected to a data recorder capable of continuously monitoring the presence of a flame shall be installed. The monitoring device readings shall be recorded at least once per hour. The monitoring device shall be equipped with an alarm to notify plant personnel of vapor flow to the unit when no combustion is taking place. The monitoring device shall be properly installed, operated, calibrated and maintained. Manufacturer's instructions shall be kept on site and readily available to Department representatives.

(G) The following conditions apply to: FUGITIVE EQUIPMENT LEAKS

- (1) The requirements of NSPS in 40 CFR 60, Subparts A and VV (Title 129, Chapter 18, Sections 001.01 and 001.14) apply to all affected equipment used in the ethanol production processes.
 - (a) Compliance with NSPS, Subpart VV shall be demonstrated for all equipment within 180 days of initial startup. (40 CFR 60.482-1)
 - (b) Test methods and procedures shall be consistent with the requirements found in 40 CFR 60.485. The methods include:
 - (i) Method 21 shall be used to determine the presence of leaking sources. (40 CFR 60.485(b)(1))
 - (ii) Method 21 shall be used to determine the background level. (40 CFR 60.485(c)(2))
 - (iii) Procedures that conform to the general methods in ASTM E-260, E-168, E-169 (incorporated by reference – see § 60.17) shall be used to determine the percent VOC content in the process fluid that is contained in or contacts a piece of equipment. (40 CFR 60.485(d)(1))

- (iv) Standard reference texts or ASTM D-2879 (incorporated by reference – see § 60.17) shall be used to determine the vapor pressure of the components in the liquid in the light liquid service. (40 CFR 60.485(e)(1))
 - (c) The owner or operator shall report and keep records as described in 40 CFR 60.487 – Reporting requirements and in 40 CFR 60.486 – Recordkeeping requirements. Each owner or operator shall submit semiannual reports to the Department beginning six months after the initial startup date.
 - (d) Equipment under this subpart is defined as each pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, valve, and flange or other connector in VOC service and any devices or systems required by this subpart. (40 CFR 60.481)
 - (e) Emissions will be controlled by the Leak Detection and Repair Program as defined in 40 CFR 60.482-1 through 60.482-10.
- (H) The following conditions apply to: HAUL ROADS
 - (1) All on-site haul roads with truck traffic shall be paved. (Title 129, Chapter 4)
 - (2) The source shall take all necessary measures to control particulate emissions from haul roads to comply with Condition X, including, but not limited to, watering, sweeping, applying chemical dust suppressants, and/or surface improvements. {Title 129, Chapters 4 and 32}.
 - (a) For each day of operation, the owner or operator shall conduct a survey of the plant property and haul roads to determine if visible fugitive emissions are being observed beyond the property line. Corrective action shall be taken upon observation of visible fugitive emissions. Documentation of all surveys and corrective actions shall be maintained in a log.
- (I) The following conditions apply to: COOLING TOWERS
 - (1) The cooling tower shall be properly designed, installed, operated and maintained. Manufacturer's specifications and instructions shall be kept on site and readily available to Department representatives. (Title 129, Chapters 4 and 19)
 - (2) The drift loss shall not exceed 0.005 percent. Verification of drift loss should be by manufacturer's guarantee. Manufacturer's drift loss guarantee shall be kept on site and readily available to Department representatives, upon request. (Title 129, Chapters 4 and 19)
 - (3) The total dissolved solids (TDS) concentration in the cooling water shall not exceed 2,400 ppm for any single sampling event. A TDS sample will be collected and tested at a minimum of once per calendar month. (Title 129, Chapters 4 and 19)
- (J) The following conditions apply to: EMERGENCY EQUIPMENT

- (1) The emergency equipment includes one 275-HP, diesel-fired engine for the emergency fire water pump.
 - (2) Fuels combusted in the emergency fire water pump shall be limited to distillate fuel oil with a sulfur content not to exceed 0.3 percent by weight. Compliance with the sulfur limit may be demonstrated with fuel supplier certifications meeting the requirements of Condition XIII.(A)(10). (Title 129, Chapters 19 and 24)
 - (3) Operation of the emergency fire water pump shall not exceed 500 hours per any period of twelve (12) consecutive calendar months. (Title 129, Chapters 4 and 19)
 - (4) The emergency fire water pump shall be equipped with an hour meter to record the operating hours to determine compliance with Condition XIII.(J)(3). The hour meter shall be properly installed, operated, calibrated and maintained. Manufacturer's instructions shall be kept on site and readily available to Department representatives.
- (K) The following conditions apply to the verification of NAAQS modeling analysis: (Title 129, Chapter 4)
- (1) Stack heights shall not be less than the following heights above ground level:

Emission Point	Required Stack Height (ft)
EP-1 (Grain Receiving Baghouse)	16
EP-3 (Hammer Mill Baghouse)	35
EP-4 (Boiler Stack)	79
EP-9 (Anaerobic Digester Flare)	33
EP-12 (Vapor Combustion Unit)	20
EP-13 (Cooling Tower)	28

- (L) Particulate matter (PM) emissions from each process unit shall not exceed limits in Title 129, Chapter 20, Section 001, as applicable. Compliance with this condition may be demonstrated through compliance with Conditions XIII.(B) and (I).
- (M) Particulate matter (PM) emissions from fuel combustion shall not exceed limits in Title 129, Chapter 20, Section 002, as applicable. Compliance with this condition may be demonstrated through compliance with Conditions XIII.(A)(5) and (J)(2).
- (N) Opacity of visible emissions from each process unit and fuel-burning equipment, except from combustion of distillate fuel oil in the boilers, shall not equal or exceed 20%, as evaluated by an EPA-approved method in accordance with Title 129, Chapter 20, Sections 004 and 006.
- (O) Emissions of sulfur oxides shall not exceed 2.5 lbs/MMBtu, maximum 2-hour average. Compliance with this condition may be demonstrated through compliance with Condition XIII.(A)(5), (A)(6) and (J)(2). (Title 129, Chapter 24)

- (P) The performance tests required in the permit must be completed and submitted to the Department as follows: (Title 129, Chapter 34)
- (1) Testing methods shall be from 40 CFR 60 Appendix A, or other method approved by the Department.
 - (2) An emission testing protocol shall be submitted to the Department at least 45 days prior to testing.
 - (3) The permittee shall provide the Department 30 days notice prior to testing to afford the Department an opportunity to have an observer present.
 - (4) The permittee shall monitor the operating parameters for process and control equipment during the performance testing required in the permit (e.g., production rate, liquid flow rate and pressure differential during testing of the scrubber). The operating parameters shall be submitted with the test results.
 - (5) A certified written copy of the test results shall be provided to the Department within 45 days of completion of the test.
- (Q) Any non-compliance with the terms and conditions of this permit shall be reported to the Department as soon as it is discovered. A written statement shall be submitted within 15 days after discovery of non-compliance, which will include information as required by Title 129, Chapter 35, Section 002.
- (R) Records of all measurements, results, inspections, and observations listed in Conditions XIII.(A) through XIII.(Q), as required to ensure compliance with this permit shall be maintained. Whenever the record involves a quantity, a running total for any period of twelve (12) consecutive calendar months must be maintained. Monthly and 12-consecutive calendar month calculations and records shall be completed no later than the 15th day of each calendar month and shall include all information through the previous calendar month. Records shall be kept on-site for a minimum of five years unless otherwise specified in this permit. These records shall be clear and readily accessible to Department representatives and shall include the following:
- (1) Records documenting the daily combined heat input for the boilers. These records shall include the daily steam production rates and the average boiler efficiency to show compliance with Conditions XIII.(A)(2), (3) and (4).
 - (2) Records of hourly averaged TRS concentration and biogas flow rate of the AD unit outlet to the flare and boilers. TRS quantities in the AD unit outlet to the flare and boilers shall be compiled within 15 days after the end of each calendar month and the calculations shall be kept on file to show compliance with Condition XII.(A)(8).
 - (3) Monitoring device readings for the flare and vapor combustion unit to demonstrate compliance with Conditions XIII.(A)(7)(d) and (F)(2)(d).
 - (4) Fuel supplier certifications to show compliance with Conditions XIII.(A)(6), (A)(10) and (J)(2).

- (5) As per Title 129, Chapter 18, Section 001.52 (40 CFR 60, Subpart Dc), consumption of fuel in the boilers during each day or any alternative timeframe approved by the EPA, design heat input capacity, annual capacity factor and semi-annual reports to show compliance with Condition XIII.(A)(9).
- (6) Inspection and maintenance records for each fabric dust collector, to show compliance with Condition XIII.(B)(2), shall include the following:
 - (a) Records documenting when routine observations were conducted with a description, including operating parameters (e.g., pressure differential readings) and any atypical observations. The records shall include the operating ranges for each operating parameter.
 - (b) Records documenting when routine maintenance and preventive actions were performed with a description of the maintenance and/or preventive action performed.
 - (c) Filter replacement records including filter position, type, and date of filter installation.
 - (d) Records documenting equipment failures, malfunctions, or other variations, including time of occurrence, remedial action taken, and when corrections were made.
- (7) Records for the scrubber, to show compliance with Condition XIII.(C)(4), shall include the following:
 - (a) Records documenting when routine inspections were performed with a description, including operating parameters (e.g., pressure differential readings and scrubbing liquid flow rates), and any atypical observations.
 - (b) Records documenting when routine maintenance and corrective actions were performed with a description of the maintenance and/or corrective action performed.
 - (c) Records documenting equipment failures, malfunctions, or other variations, including time of occurrence, remedial action taken, and when corrections were made.
- (8) Records for the storage tanks required by Condition XIII.(E)(2)(c) to show compliance with Title 129, Chapter 18, Section 001.62, (40 CFR 60, Subpart Kb).
- (9) Records for equipment leaks required by Condition XIII.(G)(1)(c) to show compliance with Title 129, Chapter 18, Section 001.14 (40 CFR 60, Subpart VV).
- (10) Records of visible fugitive emission surveys, control measures and corrective actions taken to show compliance with Condition XIII.(H)(2).
- (11) Manufacturer's drift loss guarantee to demonstrate compliance with Condition XIII.(I)(2).

- (12) Total dissolved solids (TDS) concentrations in cooling water to demonstrate compliance with Condition XIII.(I)(3).
- (13) The hours of operation for the emergency fire water pump to show compliance with Condition XIII.(J)(3).
- (14) A site survey or similar documentation demonstrating compliance with the stack height limitations per Condition XIII.(K)(1).
- (15) Copies of all notifications, reports, test results and plans submitted to the Department.
- (16) Calibration records, as required, for permitted equipment.
- (17) Manufacturer's design, installation, operation, specification, and maintenance instruction documents, as required, for permitted equipment. These records shall be kept for the life of the equipment.
- (18) Records documenting maintenance activities for all permitted equipment required to be properly installed, operated and maintained.

Pursuant to a Delegation Memorandum dated May 3, 2000, and signed by the Director, the undersigned hereby executes this document on behalf of the Director.

Date

1/27/05

Shelley Kaderly, Air Administrator
Air Quality Division