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STATE OF NEBRASKA

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## AIR QUALITY CONSTRUCTION PERMIT

PERMIT NUMBER: CP13-060

**Facility Name:** Duonix Beatrice, LP

**NDEQ Facility ID#:** 86751

**Mailing Address:**

4111 East 37<sup>th</sup> Street North  
Wichita, Kansas 67220

**Facility Location:**

722 Kinney Drive  
Beatrice, Gage County, Nebraska 68310

**Project Description:** Significant Permit Modification for a biodiesel manufacturing plant capable of producing approximately 62,500,000 gallons per year of biodiesel.

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

**Revised or Superseded Construction Permits:** This construction permit supersedes construction permit CP06-0015 (issued October 12, 2006) in its entirety.

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 project as identified in the air quality construction permit application #13-060 received October 4, 2013, including any supporting information received prior to issuance of this permit. Additional details of the proposed project, including estimated pollutant emissions caused by the project, 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 as amended May 13, 2014.

9/12/14

Date

Shelley Schneider

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

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**I. GENERAL CONDITIONS**

- (A) This permit is not transferable to another source or location. {Chapter 17}
- (B) Holding of this permit does not relieve the owner or 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. 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. {Chapter 41 and Chapter 17, Section 011}
- (C) Application for review of plans or advice furnished by the Director will not relieve the owner or operator of legal compliance with any provision of these regulations, or prevent the Director from enforcing or implementing any provision of these regulations. {Chapter 37}
- (D) Any owner or operator 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 owner or operator 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 owner or operator and reviewed by the NDEQ in issuance of this permit), the owner or operator must receive approval from the NDEQ 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 NDEQ. The owner or operator 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. {Chapter 17, Sections 006, 007, and 008}
- (E) 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. {Chapter 17, Section 012}
- (F) The owner or operator shall allow the NDEQ, EPA or an authorized representative, upon presentation of credentials to: {Neb. Rev. Statute §81-1504}
- (1) Enter upon the owner or operator'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;
  - (2) Have access to and copy, at reasonable times, any records, for the purpose of ensuring compliance with the permit or applicable requirements;
  - (3) 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;
  - (4) Sample or monitor at reasonable times substances or parameters for the purpose of ensuring compliance with the permit or applicable requirements.

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- (G) When requested by the NDEQ, the owner or operator shall submit completed emission inventory forms for the preceding year to the NDEQ by March 31 of each year. {Chapter 6}
- (H) Open fires are prohibited except as allowed by Chapter 30.
- (I) Particulate Matter – General Requirements: {Chapter 32}
- (1) The owner or operator 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 owner or operator 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 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.
- (J) If and when the Director declares an air pollution episode as defined in Chapter 38, Section 003.01B, 003.01C, or 003.01D, the owner or operator shall immediately take all required actions listed in Title 129, Appendix I until the Director declares the air pollution episode terminated.
- (K) This permit may be revised (reopened and reissued) or revoked for cause in accordance with Title 129 and Title 115, Rules of Practice and Procedure. Conditions under which this permit will be revised or revoked for cause, include but are not limited to: {Chapter 15, Section 006}
- (1) A determination by the Director, or the Administrator of EPA that:
- (a) the permit must be revised to ensure compliance with the applicable requirements;
- (b) the permit contains a material mistake or that inaccurate statements were made in the emissions standards or other terms or conditions of the permit.
- (2) The existence at the source of unresolved noncompliance with applicable requirements or a term or condition of the permit, and refusal of the owner or operator to agree to an enforceable schedule of compliance to resolve the noncompliance;
- (3) The submittal by the owner or operator of false, incomplete, or misleading information to the NDEQ or EPA;
- (4) A determination by the Director that the source or activity endangers human health or the environment and that the danger cannot be removed by a revision of the permit; or
- (5) The failure of the owner or operator to pay a penalty owed pursuant to court order, stipulation and agreement, or order issued by the Administrator of the EPA.
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**II. SPECIFIC CONDITIONS**

(A) The owner/operator of the source shall provide the following notifications to the NDEQ:

- (1) The date construction, reconstruction or modification commenced as defined in Chapter 1. Notification shall be postmarked no later than 30 days after such date and include a summary description and whether the requirement to commence construction was met through: {Chapter 17, Section 012}
  - (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 it cannot be cancelled or modified without substantial loss to the owner or operator.
- (2) The date on which the source or modification first becomes operational postmarked within 15 days after such date. {Chapter 7, Section 002.03}
- (3) When the source makes physical or operational changes to an emissions unit or associated control equipment that may cause the previous testing to not represent current operation conditions or emissions, the owner/operator shall submit notification of the change. Such notification shall be postmarked within 15 days after the change. The NDEQ may require performance testing based on review of the specific changes identified in the notification and the potential impact on emissions from the unit(s) and/or performance of the control equipment. {Chapter 34, Section 001}
  - (a) This notification requirement applies to emissions units and/or control equipment which meet the following requirements, except as provided in condition II.(A)(3)(d):
    - (i) Emissions from the emissions unit and/or control equipment is subject to an emissions limit; and
    - (ii) A valid performance test has been conducted for the pollutant to which the emissions limit applies.
  - (b) Changes that may cause emissions to increase or render previous testing not representative of current operations 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 material, or increasing the inlet pollutant loading of any control equipment.
  - (c) The notification shall include the date of the changes, a description of the changes made, and an evaluation of the resulting impact on emissions from the emissions units and/or control equipment.

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- (d) The above notification requirements do not apply when compliance with the emission limitation is demonstrated through the use of a CEMS or PEMS.
  - (4) When an increase in actual production or operating throughput of process equipment, for which performance testing has been conducted, as follows: {Chapter 34, Sections 001 and 006}
    - (a) When there is a ten percent (10%) increase in production/throughput rate, based on the average calendar day rate, over the rate recorded during the most recent valid performance test; or,
    - (b) The above notification requirements do not apply to emission units that have been tested and use a CEMS or PEMS to demonstrate compliance.
  - (B) Recordkeeping: Records of all measurements, results, inspections, and observations as required to ensure compliance with all applicable requirements shall be maintained on-site as follows:
    - (1) All calculations and records required throughout this permit shall be completed no later than the fifteenth (15<sup>th</sup>) day of each calendar month and shall include all information through the previous calendar month, unless otherwise specified in this permit.
    - (2) All records required throughout this permit shall be kept for a minimum of five years and shall be clear and readily accessible to NDEQ representatives, unless otherwise specified in this permit.
    - (3) Copies of all notifications, reports, test results, and plans.
    - (4) Calibration records for all operating parameter monitoring equipment.
    - (5) 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.
    - (6) Records documenting equipment failures, malfunctions, or other variations, including date and time of occurrence, remedial action taken, and when corrections were made to each piece of permitted equipment, required control equipment, and required monitoring equipment.
  - (C) All permitted emission units, control equipment, and monitoring equipment shall be properly installed, operated, and maintained. {Chapter 34, Section 006 and Chapter 35 Sections 006.02 and 006.05}
  - (D) When performance testing is required it shall be completed and submitted to the NDEQ as follows: {Chapter 34}
    - (1) Performance tests shall be conducted while operating at maximum capacity (operating conditions producing the highest emissions or loading to the control device) 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 NDEQ.
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- (2) Testing shall be conducted according to the methodologies found in Title 129, Chapter 34, Section 002, or other NDEQ approved methodologies.
- (3) Performance tests shall be conducted for a minimum of three (3) one hour runs unless another run time is specified by the applicable Standard or as deemed appropriate by the NDEQ.
- (4) The owner or operator of a source shall provide the NDEQ at least thirty (30) days written notice prior to testing to afford the NDEQ an opportunity to have an observer present. The owner or operator shall also provide the NDEQ with an emissions testing protocol at least thirty (30) days prior to testing. The NDEQ 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.
- (5) The owner or operator shall monitor and record the operating parameters for process and control equipment during the performance testing required in the permit.
- (6) A written copy of the test results signed by the person conducting the test shall be provided to the NDEQ within sixty (60) days of completion of the test unless a different period is specified in the underlying requirements of an applicable Federal Rule and will, at a minimum, contain the following items:
  - (a) A description of the source's operating parameters (i.e. production rates, firing rates of combustion equipment, fuel usage, etc.), control equipment parameters (i.e. baghouse fan speeds, scrubber liquid flow rates, etc.), and ambient conditions (i.e. weather conditions, etc.) during testing.
  - (b) Copies of all data sheets from the test run(s).
  - (c) A description and explanation of any erroneous data or unusual circumstance(s) and the cause for such situation.
  - (d) A final conclusion section describing the outcome of the testing.
- (E) 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 NDEQ in accordance with Chapter 35, Section 005.
- (F) The following conditions apply to the verification of NAAQS modeling analysis: {Chapter 4}
  - (1) The stack dimensions of the following emission points shall be constructed as indicated below:

Emission Point ID#	Emission Point Name	Minimum Stack Height (ft)
EP-5000	Process Flare	30
EP-4001	Cooling Tower	30
EP-5001	Boiler	50
EP-6001	Emergency Fire Water Pump Engine	10

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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 stack dimensions do not comply with the table above, the owner or operator shall notify the NDEQ prior to start-up of any emission unit and, if requested, submit a revised air dispersion modeling analysis to the NDEQ to ensure that the source will not interfere with the attainment or maintenance of the ambient air quality standards in Chapter 4.

- (2) The owner or operator 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 boundaries used in the dispersion modeling analysis table above (plus or minus 5 meters), the owner or operator shall notify the NDEQ prior to start-up of any emission unit and, if requested, submit a revised air dispersion modeling analysis to the NDEQ to ensure that the source will not interfere with the attainment or maintenance of the ambient air quality standards in Chapter 4.

**III.(A) Specific Conditions for Biodiesel Production Process**

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

Emission Point ID#	Required Control Equipment Description	Emission Unit Description
EP-0101		J-105 A/B: FAME Process Vacuum Pump
		C-102: Process Column
		D-117: Process Drum
EP-0102	CE-0102: Vacuum Distillation Unit (VDU) Vacuum Pump Scrubber	C-103: Process Column
EP-1200	CE-1200: Air/Oil Separator	Feedstock Pre-Treatment Activities
EP-5000	CE-5000: 9.34 MMBtu/hr Process Flare with Flare Gas Recovery Unit (FGRU)	D-103: Process Drum
		D-105: Process Drum
		D-124: Process Tank
		D-138: Process Tank
		D-139/D-125 Process Tanks

(2) **Emission Limitations and Testing Requirements**

- (a) The emission limitations of Chapter 20, Sections 001, 002 and 004 apply to EP-0101, EP-0102, EP-1200, and EP-5000. {Chapter 20}
- (b) The source shall comply with applicable emission limitations and testing requirements of 40 CFR 60 Subparts A, NNN, and RRR. {Chapter 18}

(3) **Operational and Monitoring Requirements and Limitations**

- (a) Emissions from the emission units identified in Condition III.(A)(1) shall be controlled by pollution control equipment as specified in Condition III.(A)(1). {Chapters 17 and 27}
- (b) The process flare shall be designed to achieve a minimum of 98% control efficiency for VOC. Verification of control efficiency shall be by manufacturer's design specifications. {Chapters 17 and 27}
- (c) The process flare shall be properly designed, installed, operated, and maintained in accordance with 40 CFR 60, Subpart A. {Chapters 17 and 27}
- (d) When gas is vented to the process flare, a flame shall be present at that flare. A monitoring system, including a data recorder capable of continuously monitoring and recording the presence of a flame and gas flow to the flare. The monitoring system shall be equipped with an alarm to notify plant personnel of process gas flow to the flare when no combustion is taking place. The monitoring device shall be properly installed, operated, calibrated and maintained. {Chapters 17 and 27}
- (e) Operation of the flare shall be defined as the period of time in which the flare is combusting process gases. Operation of the flare shall not occur more than 5,800 hours during any period of twelve (12) consecutive calendar months. At no time during the first eleven (11) calendar months after the permit issuance date shall the sum of all the previous months' operating hours exceed 5,800 hours. {Chapter 17}

- (f) Duonix shall monitor and record the hours of process flare operation. {Chapter 34}
- (g) The source shall comply with applicable operational and monitoring requirements and limitations of 40 CFR 60 Subparts A, NNN, and RRR. {Chapter 18}

(4) Applicable NSPS, NESHAP and MACT Requirements

The NDEQ adopts certain Federal rules by reference in Chapters 18 and 28. Based on a review of the application materials, all or some of the equipment identified in Condition III.(A)(1) are subject to one or more Federal rules at the time this construction permit was issued. A summary of these rules is listed below.

It is the owner or operator's responsibility to comply with all applicable Federal rules whether or not they are identified within this paragraph. Applicability and compliance options vary with each rule and may be changed by the EPA in the future. If there is any difference between the information summarized in this section and the Federal rule, the Federal rule shall govern. Please contact the NDEQ if you have questions about the applicability or compliance options for a rule.

The following standards are applicable to the distillation and reactor operations identified in Condition III.(A)(1):

Applicable Requirement	Title	Rule Citation
NSPS, Subpart A	General Provisions	Chapter 18, Sec. <u>001.01</u> 40 CFR 60.1
NSPS, Subpart NNN	VOC Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) – Distillation Operations	Chapter 18, Sec. <u>001.61</u> 40 CFR 60.660
NSPS, Subpart RRR	VOC Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) – Reactor Processes	Chapter 18, Sec. <u>001.70</u> 40 CFR 60.700

(5) Recordkeeping and Reporting Requirements

- (a) Manufacturer's documentation, or the equivalent, for the process flare and flare monitoring system shall be kept on site and readily available to NDEQ representatives.
- (b) Records documenting when routine maintenance and preventive actions were conducted on the process flare with a description of the maintenance and/or preventive action conducted.
- (c) Records of flame presence and gas flow to the process flare pilots shall be retained.
- (d) Hours of operation for the flare for each calendar month and for each period of 12 consecutive calendar months.
- (e) The source shall comply with applicable recordkeeping and reporting requirements of 40 CFR 60 Subparts A, NNN, and RRR.

**III.(B) Specific Conditions for Haul Roads**

(1) Permitted Emission Points: All on-site haul roads with production-related truck traffic shall be paved. The paved haul roads shall comply with the following conditions. {Chapters 17 and 32}

(2) Emission Limitations and Testing Requirements:

The haul roads are subject to the requirements of Title 129, Chapter 32, Section 002

(3) Operational and Monitoring Requirements and Limitations:

(a) The owner or operator shall develop, maintain, and implement a Fugitive Dust Control Plan (FDCP) to control emissions from haul roads to comply with General Condition I.(I). {Chapter 32}

(b) For each day of operation, the owner or operator shall conduct a survey of the plant property and haul roads to determine if visible fugitive emissions are being generated and leaving plant property. Implementation of fugitive dust control shall be taken upon observation of visible fugitive emissions leaving plant property or more frequently in accordance with the FDCP. Documentation of all corrective actions and daily surveys shall be maintained in a log that shall accompany the FDCP. {Chapter 32}

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

The NDEQ has not identified any NSPS, NESHAP, or MACT requirements that apply to the haul roads.

(5) Reporting and Recordkeeping Requirements:

(a) The FDCP shall be kept onsite and a copy shall be submitted to the NDEQ within thirty (30) days after initial startup of operations.

(b) Records documenting use of fugitive dust control measures on haul roads.

(c) Records of haul road visible emissions observations taken daily during operation and a description of corrective action taken.

**III.(C) Specific Conditions for the 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:

<b>Emission Point ID#</b>	<b>Control Equipment ID# and Description</b>	<b>Emission Unit ID# and Description</b>	<b>Number of Cooling Tower Cells</b>	<b>Maximum Circulation Rate (gal/hr)</b>
EP-4001	-	EU-4001: Cooling Tower	2	383,220 (total)

- (2) **Emission Limitations and Testing Requirements:**

The emission limitations of Chapter 20, Sections 001 and 004 apply to EP-4001. {Chapter 20}

- (3) **Operational and Monitoring Requirements and Limitations:**

- (a) Drift loss from each cooling tower shall be limited to 0.001 percent. Verification of drift loss shall be by manufacturer's guarantee. {Chapter 17}
- (b) TDS concentration of the cooling water in each cooling tower shall not exceed 2,500 ppm. A representative TDS sample shall be collected and tested from the cooling tower a minimum of once per calendar month. The test used to determine TDS concentration shall be performed in accordance with a documented EPA approved method. {Chapter 17}

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

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

- (5) **Reporting and Recordkeeping Requirements:**

- (a) Records documenting when routine maintenance and preventive actions were conducted on the cooling tower with a description of the maintenance and/or preventive action conducted.
- (b) Manufacturer's drift loss design specification shall be kept on site and readily available to NDEQ representatives, upon request, for the life of the unit.
- (c) Records of the TDS concentration in the cooling tower water for each sampling event and the EPA test method used.

**III.(D) Specific Conditions for the Boiler**

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

Emission Point ID#	Control Equipment ID# and Description	Emission Unit ID# and Description	Capacity (MMBtu/hr)	Permitted Fuel Type
EP-5001	-	B-5001: Boiler #1	152.8	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. Initial performance testing, if required, shall be conducted in accordance with Specific Condition II.(D).

Emission Point ID#	Pollutant	Permitted Limit	Averaging Period	Basis for Permit Limit	Initial Performance Testing Required (Yes/No)
EP-5001	NO <sub>x</sub>	0.055 lb/MMBtu	30-day rolling average	Chapter 17	No <sup>(1)</sup>

<sup>(1)</sup> A CEMS is required for compliance with the emissions limitation.

- (b) Boiler #1 (B-5001) shall comply with applicable emission limitations and testing requirements of 40 CFR 60 Subparts A and Db. {chapter 18}
- (c) B-5001 shall be in compliance with the 0.055 lb/MMBtu NO<sub>x</sub> emission limit as demonstrated by the NO<sub>x</sub> CEMS specified in Condition III.(D)(3)(b). {Chapter 34}
- (3) **Operational and Monitoring Requirements and Limitations:**
- (a) B-5001 shall only combust natural gas. {Chapter 17}
- (b) B-5001 shall be equipped with an operational NO<sub>x</sub> continuous emissions monitoring system. The NO<sub>x</sub> CEMS shall be properly installed, operated, calibrated, and maintained in accordance with NSPS, Subparts A and Db. {Chapter 34}
- (c) The Source shall comply with applicable operational and monitoring requirements and limitations of 40 CFR 60 Subparts A and Db. {Chapter 18}

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

The NDEQ adopts certain Federal rules by reference in Chapters 18 and 28. Based on a review of the application materials, all or some of the equipment identified in Condition III.(D)(1) is subject to one or more Federal rules at the time this construction permit was issued. A summary of these rules is listed below.

It is the owner or operator's responsibility to comply with all applicable Federal rules whether or not they are identified within this paragraph. Applicability and compliance options vary with

each rule and may be changed by the EPA in the future. If there is any difference between the information summarized in this section and the Federal rule, the Federal rule shall govern. Please contact the NDEQ if you have questions about the applicability or compliance options for a rule.

The following standards are applicable to the boiler (EU-5001):

<b>Applicable Standard</b>	<b>Title</b>	<b>Rule Citation</b>
NSPS, Subpart A	General Provisions	Chapter 18, Sec. <u>001.01</u> 40 CFR 60.1
NSPS, Subpart Db	Industrial, Commercial, and Institutional Steam Generating Units	Chapter 18, Sec. <u>001.22</u> 40 CFR 60.40b

(5) Reporting and Recordkeeping Requirements:

- (a) Records of 30-day rolling average NO<sub>x</sub> emissions.
- (b) The source shall comply with applicable reporting and recordkeeping requirements of 40 CFR 60 Subparts A and Db.

**III.(E) Specific Conditions for the Hot Oil Heater**

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

Emission Point ID#	Control Equipment ID# and Description	Emission Unit ID# and Description	Capacity (MMBtu/hr)	Permitted Fuel Type
EP-5002	-	H-5002: Oil Heater	17.5	Natural Gas
				Process Gas (dimethyl ether and methanol)

(2) Emission Limitations and Testing Requirements

- (a) The emission limitations of Chapter 20, Sections 001, 002 and 004 apply to EP-5002. {Chapter 20}
- (b) The source shall comply with applicable emission limitations and testing requirements of 40 CFR 60 Subparts A and Dc. {Chapter 18}

(3) Operational and Monitoring Requirements and Limitations

- (a) H-5002 shall combust only natural gas and process gases containing dimethyl ether and methanol (with trace amount of water). {Chapter 17}
- (b) The source shall comply with applicable operational and monitoring requirements and limitations of 40 CFR 60 Subparts A and Dc. {Chapter 18}

(4) Applicable NSPS, NESHAP and MACT Requirements

The NDEQ adopts certain Federal rules by reference in Chapters 18 and 28. Based on a review of the application materials, the equipment identified in Condition III.(E)(1) is subject to one or more Federal rules at the time this construction permit was issued. A summary of these rules is listed below.

It is the owner or operator's responsibility to comply with all applicable Federal rules whether or not they are identified within this paragraph. Applicability and compliance options vary with each rule and may be changed by the EPA in the future. If there is any difference between the information summarized in this section and the Federal rule, the Federal rule shall govern. Please contact the NDEQ if you have questions about the applicability or compliance options for a rule.

The following standards are applicable to the hot oil heater (H-5002):

Applicable Requirement	Title	Rule Citation
NSPS, Subpart A	General Provisions	Chapter 18, Sec. <u>001.01</u> 40 CFR 60.1
NSPS, Subpart Dc	Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units	Chapter 18, Sec. <u>001.52</u> 40 CFR 60.40c

(5) Recordkeeping and Reporting Requirements

The source shall comply with applicable recordkeeping and reporting requirements of 40 CFR 60 Subparts A and Dc.

**III.(F) Specific Conditions for Emergency Equipment**

- (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#	Emission Unit ID# and Description	Capacity (HP)	Permitted Fuel Type
EP-6001	EU-6001: Emergency Fire Water Pump Engine	485	Diesel Fuel

(2) **Emission Limitations and Testing Requirements:**

- (a) The emission limitations of Chapter 20, Sections 002 and 004 apply to EP-6001. {Chapter 20}
- (b) The source shall comply with applicable emission limitations and testing requirements of 40 CFR 60 Subparts A and III and 40 CFR 63 Subparts A and ZZZZ. {Chapters 18 and 28}

(3) **Operational and Monitoring Requirements and Limitations:**

- (a) EU-6001 shall not exceed 500 operating hours per any period twelve (12) consecutive calendar months. At no time during the first eleven (11) calendar months after the permit issuance date shall the sum of all the previous months' operating hours exceed 500 hours. {Title 129, Chapter 17}
- (i) The emergency fire pump engine shall be equipped with a non-resettable hour meter to record the operating hours.
- (b) The source shall comply with applicable operational and monitoring requirements and limitations of 40 CFR 60 Subparts A and III and 40 CFR 63 Subparts A and ZZZZ. {Chapters 18 and 28}

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

The NDEQ adopts certain Federal rules by reference in Chapters 18 and 28. Based on a review of the application materials, all or some of the equipment identified in paragraph (1) of this Condition is subject to one or more Federal rules at the time this construction permit was issued. A summary of these rules is listed below.

It is the owner or operator's responsibility to comply with all applicable Federal rules whether or not they are identified within this paragraph. Applicability and compliance options vary with each rule and may be changed by the EPA in the future. If there is any difference between the information summarized in this section and the Federal rule, the Federal rule shall govern. Please contact the NDEQ if you have questions about the applicability or compliance options for a rule.

The following standards are applicable to the emergency fire water pump engine (EU-6001):

<b>Applicable Standard</b>	<b>Title</b>	<b>Rule Citation</b>
NSPS, Subpart A	General Provisions	Chapter 18, Sec. <u>001.01</u> 40 CFR 60.1
NSPS, Subpart III	Standards of Performance for Stationary Compression Ignition Internal Combustion Engines	Chapter 18, Sec. <u>001.76</u> 40 CFR 60.4200
NESHAP, Subpart A	General Provisions	Chapter 28, Sec. <u>001.01</u> 40 CFR 63.1
NESHAP, Subpart ZZZZ	National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines	Chapter 28, Sec. <u>001.88</u> 40 CFR 63.6580

- (5) Reporting and Recordkeeping Requirements:
- (a) Hours of operation for the emergency fire water pump engine for each calendar month and for each period of 12 consecutive calendar months.
  - (b) The source shall comply with applicable reporting and recordkeeping requirements of 40 CFR 60 Subparts A and III and 40 CFR 63 Subparts A and ZZZZ.

**III.(G) Specific Conditions for Equipment Leaks**

(1) **Permitted Emission Points: (EP-1500)**

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 NSPS, Subpart VVa located throughout the biodiesel facility

(2) **Emission Limitations and Testing Requirements:**

The source shall comply with applicable emission limitations and testing requirements of 40 CFR 60 Subparts A and VVa.

(3) **Operational and Monitoring Requirements and Limitations:**

The source shall comply with applicable operation and monitoring limitations and requirements of 40 CFR 60 Subparts A and VVa.

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

The NDEQ adopts certain Federal rules by reference in Chapters 18 and 28. Based on a review of the application materials, all or some of the equipment identified in Condition III.(G)(1) are subject to one or more Federal rules at the time this construction permit was issued. A summary of these rules is listed below.

It is the owner or operator's responsibility to comply with all applicable Federal rules whether or not they are identified within this paragraph. Applicability and compliance options vary with each rule and may be changed by the EPA in the future. If there is any difference between the information summarized in this section and the Federal rule, the Federal rule shall govern. Please contact the NDEQ if you have questions about the applicability or compliance options for a rule.

The following standards are applicable to the equipment leaks:

<b>Applicable Requirement</b>	<b>Title</b>	<b>Rule Citation</b>
NSPS, Subpart A	General Provisions	Chapter 18, Sec. <u>001.01</u> 40 CFR 60.1
NSPS, Subpart VVa	Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for which Construction, Reconstruction, or Modification Commenced after November 7, 2006.	Chapter 18, Sec. <u>001.52</u> 40 CFR 60.480a

(5) **Reporting and Recordkeeping Requirements:**

The source shall comply with applicable reporting and recordkeeping requirements of 40 CFR 60 Subparts A and VVa.

**III.(H) Specific Conditions for Loadout Operations**

(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#	Emission Unit ID# and Description	Material Loaded
EP-2200	Truck/Rail Loadout Rack	Biodiesel
		Glycerin
		VDU Bottoms

(2) **Emission Limitations and Testing Requirements:**

EP-2200 is subject to the requirements of Chapter 20, Section 001. {Chapter 20}

(3) **Operational and Monitoring Requirements and Limitations:**

The source shall use submerged loading when transferring liquid product from the storage tanks to tanker trucks and/or trains. {Chapter 17}

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

The NDEQ has not identified any NSPS, NESHAP, or MACT requirements that apply to truck/rail loadout.

(5) **Reporting and Recordkeeping Requirements:**

This condition does not prescribe any additional reporting or recordkeeping requirements.



Pete Ricketts  
Governor

STATE OF NEBRASKA

DEPARTMENT OF ENVIRONMENTAL QUALITY  
Jim Macy

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**AIR QUALITY CONSTRUCTION PERMIT**

**PERMIT NUMBER: CP14-064**

**Facility Name:** Duonix Beatrice, LP

**NDEQ Facility ID#:** 86751

**Mailing Address:**  
4111 East 37<sup>th</sup> Street North  
Wichita, Kansas 67220

**Facility Location:**  
722 Kinney Drive  
Beatrice, Gage County, Nebraska

**Permit Description:** Approval of silica and precoat operations to an existing biodiesel manufacturing plant.

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

**Revised or Superseded Construction Permits:** This construction permit does not revise or supersede any conditions of existing construction permits. All provisions of the original permit are still in effect, and in concert with this permit, constitute the effective construction permit.

Pursuant to Title 129 – Nebraska Air Quality Regulations, Chapter 14, the public has been notified by prominent advertisement of this proposed permit revision and the thirty (30) day period allowed for comments has elapsed. This construction permit approves the proposed revisions as identified in the air quality construction permit application #14-064 received December 23, 2014, including any supporting information received prior to issuance of this permit. 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 as amended May 13, 2014.

5/29/15  
\_\_\_\_\_  
Date

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

**I. GENERAL CONDITIONS**

- (A) This permit is not transferable to another source or location. {Chapter 17}
- (B) Holding of this permit does not relieve the owner or 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. 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. {Chapter 41 and Chapter 17, Section 011}
- (C) Application for review of plans or advice furnished by the Director will not relieve the owner or operator of legal compliance with any provision of these regulations, or prevent the Director from enforcing or implementing any provision of these regulations. {Chapter 37}
- (D) Any owner or operator 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 owner or operator 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 owner or operator and reviewed by the NDEQ in issuance of this permit), the owner or operator must receive approval from the NDEQ 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 NDEQ. The owner or operator 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. {Chapter 17, Sections 006, 007, and 008}
- (E) 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. {Chapter 17, Section 012}
- (F) The owner or operator shall allow the NDEQ, EPA or an authorized representative, upon presentation of credentials to: {Neb. Rev. Statute §81-1504}
- (1) Enter upon the owner or operator'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;
  - (2) Have access to and copy, at reasonable times, any records, for the purpose of ensuring compliance with the permit or applicable requirements;
  - (3) 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;
  - (4) Sample or monitor at reasonable times substances or parameters for the purpose of ensuring compliance with the permit or applicable requirements.

- (G) When requested by the NDEQ, the owner or operator shall submit completed emission inventory forms for the preceding year to the NDEQ by March 31 of each year. {Chapter 6}
- (H) Open fires are prohibited except as allowed by Chapter 30.
- (I) Particulate Matter – General Requirements: {Chapter 32}
- (1) The owner or operator 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 owner or operator 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 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.
- (J) If and when the Director declares an air pollution episode as defined in Chapter 38, Section 003.01B, 003.01C, or 003.01D, the owner or operator shall immediately take all required actions listed in Title 129, Appendix I until the Director declares the air pollution episode terminated.
- (K) This permit may be revised (reopened and reissued) or revoked for cause in accordance with Title 129 and Title 115, Rules of Practice and Procedure. Conditions under which this permit will be revised or revoked for cause, include but are not limited to: {Chapter 15, Section 006}
- (1) A determination by the Director, or the Administrator of EPA that:
    - (a) the permit must be revised to ensure compliance with the applicable requirements;
    - (b) the permit contains a material mistake or that inaccurate statements were made in the emissions standards or other terms or conditions of the permit.
  - (2) The existence at the source of unresolved noncompliance with applicable requirements or a term or condition of the permit, and refusal of the owner or operator to agree to an enforceable schedule of compliance to resolve the noncompliance;
  - (3) The submittal by the owner or operator of false, incomplete, or misleading information to the NDEQ or EPA;
  - (4) A determination by the Director that the source or activity endangers human health or the environment and that the danger cannot be removed by a revision of the permit; or
  - (5) The failure of the owner or operator to pay a penalty owed pursuant to court order, stipulation and agreement, or order issued by the Administrator of the EPA.

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## II. SPECIFIC CONDITIONS

- (A) The owner/operator of the source shall provide the following notifications to the NDEQ:
- (1) The date construction, reconstruction or modification commenced as defined in Chapter 1. Notification shall be postmarked no later than 30 days after such date and include a summary description and whether the requirement to commence construction was met through: {Chapter 17, Section 012}
  - (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 it cannot be cancelled or modified without substantial loss to the owner or operator.
  - (2) The date on which the source or modification first becomes operational, postmarked within 15 days after such date. {Chapter 7, Section 002.03}
- (B) Recordkeeping: Records of all measurements, results, inspections, and observations as required to ensure compliance with all applicable requirements shall be maintained on-site as follows:
- (1) All calculations and records required throughout this permit shall be completed no later than the fifteenth (15<sup>th</sup>) day of each calendar month and shall include all information through the previous calendar month, unless otherwise specified in this permit.
  - (2) All records required throughout this permit shall be kept for a minimum of five (5) years and shall be clear and readily accessible to NDEQ representatives, unless otherwise specified in this permit.
  - (3) Copies of all notifications, reports, test results, and plans.
  - (4) Calibration records for all operating parameter monitoring equipment.
  - (5) 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.
  - (6) Records documenting equipment failures, malfunctions, or other variations, including date and time of occurrence, remedial action taken, and when corrections were made to each piece of permitted equipment, required control equipment, and required monitoring equipment.
- (C) All permitted emission units, control equipment, and monitoring equipment shall be properly installed, operated, and maintained. {Chapter 34, Section 006 and Chapter 35 Sections 006.02 and 006.05}

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- (D) When performance testing is required it shall be completed and submitted to the NDEQ as follows: {Chapter 34}
- (1) Performance tests shall be conducted while operating at maximum capacity (operating conditions producing the highest emissions or loading to the control device) 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 NDEQ.
  - (2) Testing shall be conducted according to the methodologies found in Title 129, Chapter 34, Section 002, or other NDEQ approved methodologies.
  - (3) Performance tests shall be conducted for a minimum of three (3) one hour runs unless another run time is specified by the applicable Standard or as deemed appropriate by the NDEQ.
  - (4) The owner or operator of a source shall provide the NDEQ at least thirty (30) days written notice prior to testing to afford the NDEQ an opportunity to have an observer present. The owner or operator shall also provide the NDEQ with an emissions testing protocol at least thirty (30) days prior to testing. The NDEQ 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.
  - (5) The owner or operator shall monitor and record the operating parameters for process and control equipment during the performance testing required in the permit.
  - (6) A written copy of the test results signed by the person conducting the test shall be provided to the NDEQ within sixty (60) days of completion of the test unless a different period is specified in the underlying requirements of an applicable Federal Rule and will, at a minimum, contain the following items:
    - (a) A description of the source's operating parameters (i.e. production rates, firing rates of combustion equipment, fuel usage, etc.), control equipment parameters (i.e. baghouse fan speeds, scrubber liquid flow rates, etc.), and ambient conditions (i.e. weather conditions, etc.) during testing.
    - (b) Copies of all data sheets from the test run(s).
    - (c) A description and explanation of any erroneous data or unusual circumstance(s) and the cause for such situation.
    - (d) A final conclusion section describing the outcome of the testing.
- (E) 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 NDEQ in accordance with Chapter 35, Section 005.

**III.(A) Specific Conditions for Silica and Precoat**

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

<b>Emission Point ID#</b>	<b>Required Control Device ID# and Description</b>	<b>Emission Unit ID# and Description</b>
EP-7001	CE-7001: Cartridge Filter	SC-1204: Silica Feeding and Handling
		SC-1205: Precoat Feeding and Handling

- (2) Emission Limitations and Testing Requirements:

The emissions limitations of Title 129, Chapter 20, Sections 001 and 004 apply to the emission point identified in Condition III.(A)(1).

- (3) Operational and Monitoring Requirements and Limitations

- (a) Emissions from the emission units identified in Condition III.(A)(1) shall be controlled by pollution control equipment as follows: SC-1204 and SC-1205 shall be controlled by CE-7001. {Chapters 17 and 20}
- (b) Operation and maintenance of the cartridge filter shall be in accordance with the following requirements: {Chapters 17 and 20}
- (i) The cartridge filter shall be operated and be controlling emissions at all times when the associated emission units are in operation.
  - (ii) The cartridge filter shall be equipped with an operational pressure differential indicator. Pressure differential readings shall be recorded at least once each day that the cartridge filter is operating.
  - (iii) Filters 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 filter failure.
  - (iv) Daily observations shall be conducted during daylight hours of cartridge filter operation to determine if there are visible emissions from the stack, leaks, noise, or other indications that corrective action is needed. If corrective action is necessary, it shall occur immediately.
  - (v) The owner or operator shall maintain an on-site inventory of spare filters of each type used to ensure rapid replacement in the event of filter failure.

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

The NDEQ has not identified any NSPS, NESHAP, or MACT requirements that apply to the silica and precoat operations.

(5) Reporting and Recordkeeping Requirements:

- (a) Records documenting the date, time, and pressure differential reading for each day the cartridge filter 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 inspections, and corrective actions taken for each day the associated cartridge filter is in operation.