

Connecticut Department of
**ENERGY &
ENVIRONMENTAL
PROTECTION**

**BUREAU OF AIR MANAGEMENT
TITLE V OPERATING PERMIT**

Issued pursuant to Title 22a of the Connecticut General Statutes (CGS) and Section 22a-174-33 of the Regulations of Connecticut State Agencies (RCSA) and pursuant to the Code of Federal Regulations (CFR), Title 40, Part 70.

Title V Permit Number	145-0050-TV
Client/Sequence/Town/Premises Numbers	8464/145/74
Date Issued	September 19, 2022
Expiration Date	September 19, 2027

Corporation:

Plainfield Renewable Energy, LLC


Premises Location:

12 Mill Brook Road, Plainfield, CT 06734

Name of Responsible Official and Title:

Greg Cook, Chief Operating Officer

All the following attached pages, 2 through 41, are hereby incorporated by reference into this Title V permit.



Katherine S. Dykes
Commissioner

September 19, 2022

Date

for

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Title V Operating Permit

All conditions in Sections III, IV, and VI of this Title V permit are enforceable by both the Administrator and the commissioner unless otherwise specified. Applicable requirements and compliance demonstration are set forth in Section III of this Title V permit. The Administrator or any citizen of the United States may bring an action to enforce all permit terms or conditions or requirements contained in Sections III, IV, and VI of this Title V permit in accordance with the Clean Air Act, as amended.

LIST OF ABBREVIATIONS/ACRONYMS

<i>Abbreviation/Acronym</i>	<i>Description</i>
°F	Degree Fahrenheit
acfm	Actual cubic feet per minute
ASC	Actual Stack Concentration
B100	100% Biodiesel, non-fossil fuel derived
Bhp	Brake horsepower
Btu	British Thermal Unit
C&D	Construction and Demolition
CEM	Continuous Emission Monitor
CFR	Code of Federal Regulations
CGS	Connecticut General Statutes
CO	Carbon Monoxide
CO ₂	Carbon Dioxide
CP/OP	Construction Permit/Operating Permit
DEEP	Department of Energy and Environmental Protection
dscf	Dry standard cubic feet
EU	Emissions Unit
EPA	Environmental Protection Agency
GEU	Grouped Emissions Unit
gph	Gallons per hour
HAP	Hazardous Air Pollutant
HHV	Higher Heating Value
hr	Hour
kW	Kilowatt
lb	Pound
MASC	Maximum Allowable Stack Concentration
MMBtu	Million Btu
NESHAP	National Emissions Standard for Hazardous Air Pollutants
NHSM	Non-Hazardous Secondary Materials
NO _x	Nitrogen Oxides
NSPS	New Source Performance Standard
NSR	New Source Review
Pb	Lead
PM	Particulate Matter
PM ₁₀	Particulate Matter less than 10 microns
PM _{2.5}	Particulate Matter less than 2.5 microns
pph	Pound per hour
ppmvd	Parts per million, volumetric basis dry
psia	Pounds per square inch absolute
PTE	Potential to Emit

LIST OF ABBREVIATIONS/ACRONYMS, continued

<i>Abbreviation/Acronym</i>	<i>Description</i>
RCSA	Regulations of Connecticut State Agencies
RICE	Reciprocating Internal Combustion Engine
SIC	Standard Industrial Classification Code
SIP	State Implementation Plan
SNCR	Selective Non-catalytic Reduction
SO ₂	Sulfur Dioxide
SO _x	Sulfur Oxides
SOS	Standard Operating Scenario
SSM	Startup, Shutdown & Malfunction
tph	Tons per hour
tpy	Tons per year
TSP	Total Suspended Particulate
ULSD	Ultra Low Sulfur Distillate
VOC	Volatile Organic Compound
yr	Year

Section I: Premises Information/Description

A. PREMISES INFORMATION

Nature of Business: Electric Generation
Primary SIC: 4911
Other SIC: None

Facility Mailing Address: 12 Mill Brook Road, Plainfield, CT 06374-1968
Telephone Number: 860-457-9313

B. PREMISES DESCRIPTION

Plainfield Renewable Energy LLC (PRE) operates a nominal 37.5 MW (net) biomass fired fluidized bed, staged gasification process with a close-coupled electric generating boiler (gasifier) (EU-1). The biomass fuel comes from various sources which includes forest management residues, land clearing debris, waste wood from industries, construction and demolition (C&D) waste. The C&D waste fuel that is used in this facility is not considered a solid waste pursuant to the definition of Non-Hazardous Secondary Materials (NHSM) found in 40 CFR Part 241 Subpart B.

The primary use of bio-diesel (B100) is during startup. The startup burners are used to heat the fluidized bed up to approximately 550°F before biomass is introduced to the gasifier. The co-firing of biomass and B100 occurs until such time that the selective non-catalytic reduction (SNCR) control device reaches operational temperature.

The biomass fired boiler is subject to 40 CFR Part 63 Subpart JJJJJ – National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial and Institutional Boilers at Area Sources. The only emissions standard that applies for the biomass subcategory is filterable particulate matter.

EU-1 is subject to 40 CFR Part 60 Subpart Db – Standards of Performance for New Stationary Sources (NSPS) for Industrial, Commercial, Institutional Steam Generating Units. The only emissions standards that apply for this unit are for particulate matter and opacity.

There are two emergency engines on the premises, one 500 kW emergency engine (EU-2) and one 157 bhp fire pump (EU-5). There is one additional 150 kW emergency engine (EU-4) at the pump house located on Packer Road that supplies electrical power to the cooling water pumps in the event local street power is not available, which is also included as part of this premises. The 500 kW emergency engine (EU-2) operates under RCSA §22a-174-3b, the other two engines (EU-4 & EU-5) do not require New Source Review (NSR) permits. However, operating restrictions for these units are included in Permit No. 145-0049 as collateral conditions. There is no emission control or monitoring equipment with these engines.

All of the emergency engines are subject to NSPS 40 CFR Part 60 Subpart IIII and NESHAP 40 CFR Part 63 Subpart ZZZZ. Part 63 sources are normally major sources for hazardous air pollutants (HAP), but Subpart ZZZZ includes standards for reciprocating internal combustion engines (RICE) at both major and area sources of HAP. These engines will operate according to the NSPS Subpart IIII as a method of compliance for both rules pursuant to 40 CFR §63.6590(c)(1).

Section I: Premises Information/Description

The wet cooling tower is identified as EU-3 and does not require an individual NSR permit. All applicable requirements for this unit are contained in Section III.D, Premises-Wide Requirements, of this Title V permit.

The fuel handling system, including 2 truck tippers, conveyors, transfer points, inside and outside wood storage piles, is identified as EU-6 and does not require an individual NSR permit, however, operating restrictions for this system are included in Permit No. 145-0049 as collateral conditions.

The Ash Silo and Pug Mill are identified as EU-7 and do not require an individual NSR permit, however operating restrictions for these systems are included in NSR Permit No. 145-0049.

The Limestone Silo is identified as EU-8 and does not require an individual NSR permit. All of the applicable requirements are in Section III.D, Premises-Wide Requirements, of this Title V permit.

Emissions Unit 9 (EU-9) is for either dolomitic or hydrated lime and does not require an individual NSR permit. All of the applicable requirements are in Section III.D, Premises-Wide Requirements, of this Title V permit.

Plainfield Renewable Energy LLC is a major source for the following pollutants: NO_x and CO

Plainfield Renewable Energy LLC is a Title V source located in a serious ozone non-attainment area defined in RCSA §22a-174-1(103).

Section II: Emissions Units Description

A. EMISSIONS UNITS DESCRIPTION

Emissions units are set forth in Table II.A. It is not intended to incorporate by reference these NSR Permits or Regulations into this Title V permit.

TABLE II.A: EMISSIONS UNITS DESCRIPTION			
Emissions Unit/ Grouped Emissions Unit	Emissions Unit Description	Control Unit Description	Permit or Regulation Number
EU-1	Nominal 37.5 MW (net) Biomass-fueled Fluidized bed gasification boiler (gasifier). Maximum Heat Input with biomass is 523.1 MMBtu/hr (4,624 Btu/lb, HHV) and 100 MMBtu/hr for B100. Constructed December 2013. (Main Plant)	Selective Non-Catalytic Reduction (SNCR) to control NOx; Multicyclone and Baghouse to control PM; Spray Dryer and Bed Additive Injection to control Acid Gases	P145-0049 RCSA §22a-174-22e 40 CFR Part 60 Subpart Db 40 CFR Part 63 Subpart JJJJJ
EU-2	500 kW Cummins Emergency ULSD Generator Constructed December 2013 (Main Plant)	None	RCSA §22a-174-3b RCSA §22a-174-22e 40 CFR Part 60 Subpart IIII 40 CFR Part 63 Subpart ZZZZ P145-0049 collateral conditions
EU-4	150 kW Cummins Emergency ULSD Generator Constructed December 2013 (Packer Road Pump House)	None	RCSA §22a-174-22e 40 CFR Part 60 Subpart IIII 40 CFR Part 63 Subpart ZZZZ P145-0049 collateral conditions
EU-5	157 bhp Clarke Emergency ULSD Fire Pump Constructed December 2013 (Main Plant)	None	RCSA §22a-174-22e 40 CFR Part 60 Subpart IIII 40 CFR Part 63 Subpart ZZZZ P145-0049 collateral conditions
EU-6	Fuel handling system, including 2 truck tippers, conveyors, transfer points, inside and outside wood storage piles Constructed December 2013 (Main Plant)	Water mist on drop points, and tipping area. Wind screens on inside storage building	P145-0049 collateral conditions
EU-7	Ash Silo Pug Mill	Integrated bin vent filter Water	P145-0049 collateral conditions

Section II: Emissions Units Description

TABLE II.A: EMISSIONS UNITS DESCRIPTION			
Emissions Unit/ Grouped Emissions Unit	Emissions Unit Description	Control Unit Description	Permit or Regulation Number
	Constructed December 2013 (Main Plant)		
GEU-1	EU-1, EU-6, and EU-7		See Above
GEU-2	EU-4 and EU-5		See Above
All applicable requirements for the following units are listed in the premises-wide general requirements. (RCSA 22a-174-18)			
EU-3	3-Cell Wet Cooling Tower 24,000 gpm Constructed December 2013 (Main Plant)	None	Exempted from permitting (PTE< 15 TPY)
EU-8	Limestone Silo Constructed December 2013	Integrated bin vent filter	Exempted from permitting (PTE< 15 TPY)
EU-9	Dolomitic or Hydrated Lime Silo Constructed December 2013	Integrated bin vent filter	Exempted from permitting (PTE< 15 TPY)

B. OPERATING SCENARIO IDENTIFICATION

The Permittee shall be allowed to operate under the following Standard Operating Scenarios (SOS) without notifying the commissioner, provided that such operations are explicitly provided for and described in Table II.B.

TABLE II.B: OPERATING SCENARIO IDENTIFICATION		
Identification of Operating Scenario	Emissions Units Associated with the Scenario	Description of Scenario
SOS	All Emissions Units	Emissions Units associated with the SOS shall be operated in accordance with applicable permit terms and conditions and best management practices for electric power generation with biomass, only as allowed.

Section III: Applicable Requirements and Compliance Demonstration

The following contains summaries of applicable regulations and compliance demonstration for each identified Emissions Unit and Operating Scenario, regulated by this Title V permit.

A. GROUPED EMISSIONS UNIT 1 (GEU-1): 37.5 MW Wood Fueled fluidized bed, staged-gasification electric generating boiler; Fuel and Ash Handling Systems; NSR Permit 145-0049; 40 CFR Part 60 Subpart Db; 40 CFR Part 63 Subpart JJJJJ

1. Allowable Fuels

a. Limitation or Restriction

i. Gasifier

(A) Allowable Wood Biomass fuels may be utilized up to 100% of any of the following:

- (1) Land Clearing Debris: Chipped trees, stumps, branches or brush as defined in RCSA §22a-208a-1 [P145-0049]
- (2) Recycled Wood or Clean Wood: Recycled wood or clean wood means any wood or wood fuel which is derived from such products or processes as pallets skids, spools, packaging materials, bulky wood waste or scraps from newly built wood products, provided such wood is not treated wood. [CGS §22a-209a and RCSA §22a-208a-1] [P145-0049]

“Treated wood” means wood which contains an adhesive, paint, stain, fire retardant, pesticide or preservative [CGS §22a-209a(2)]. The use of treated wood containing pesticide or preservatives shall not be considered an allowable fuel pursuant to the definition of “regulated wood fuel” [CGS §22a-209a(4)]. [P145-0049]
- (3) Regulated Wood Fuel, Processed Construction and Demolition Wood: Regulated wood fuel means processed wood from construction and demolition activities which has been sorted to remove plastics, plaster, gypsum wallboard, asbestos, asphalt shingles and wood which contains creosote or to which pesticides have been applied or which contains substances defined as hazardous under section CGS §22a-115. [CGS §22a-209a] (State Enforceable Only)
Includes Federal definition of non-hazardous secondary materials (NHSM) found in 40 CFR Part 241 Subpart B [P145-0049]
- (4) Other Clean Wood: Other types if properly sized, clean, uncontaminated wood materials, such as sawdust, chips, bark, tree trimmings or other similar materials. [P145-0049]

(B) Maximum Biomass Chlorine content: 0.15% by weight, dry basis
(State Enforceable Only) [P145-0049]

ii. Startup Burners

(A) Bio-diesel (B100)

- (1) Maximum Fuel Sulfur Content (% by weight, dry basis): 0.0015 [P145-0049]

b. Monitoring Requirements

i. The Permittee shall monitor all biomass deliveries to the plant. [P145-0049]

c. Record Keeping Requirements

i. The Permittee shall keep records of the fuel certification for each delivery of bio-diesel (B100) from a bulk petroleum provider or a copy of the current contract with the fuel supplier supplying the fuel used by this equipment that includes the applicable sulfur content of the fuel as a condition of each

Section III: Applicable Requirements and Compliance Demonstration

shipment. The shipping receipt or contract shall include the date of delivery, the name of the fuel supplier, type of fuel delivered, the percentage of sulfur in such fuel, by weight, dry basis, and the method used to determine the sulfur content of such fuel. [P145-0049]

- ii. The Permittee shall make and keep records of the C&D fuel deliveries from each fuel provider. The records shall be sufficient to determine the following: [P145-0049]
 - (A) The shipping receipt or contract shall include the date of delivery, the name of the fuel supplier, type of fuel delivered, the percentage of chlorine in such fuel, by weight, dry basis, and the method used to determine the chlorine content of such fuel. [P145-0049]
 - (B) The methods used to certify that the C&D fuel meets the definition of “regulated wood fuel: as defined in CGS §22a-209a. [P145-0049]
 - (C) The methods used to certify that the wood fuel meets the definition of a non-hazardous secondary material that are not considered a solid waste as defined in 40 CFR Part 241 Subpart B. [P145-0049]

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner’s request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

2. Definitions

- b. "Steady-state" operation shall be defined as operation of the fluid bed gasifier when the temperature at the SNCR reaches a minimum of 1,500 °F triggering the injection of urea and compliance with the applicable steady state emissions limits. Additionally, steady-state operation shall include all modes of operation during which the fluid bed gasifier load exceeds 50% of the manufacturer's specified maximum. [P145-0049]
- c. "Malfunction" shall be defined as any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment or a process to operate in a normal or usual manner. Failures that were caused in part by poor maintenance or careless operation are not malfunctions. [P145-0049]
- d. “Startup” shall be defined as the time when bio-diesel (B100) is first fired in the unit and continues once biomass is introduced to the gasifier, until such time that the unit reaches sufficient temperature for urea injection (est. 1,500°F) and NOx analyzer response, not to exceed 14 hours (unless the startup includes refractory curing). [P145-0049]
- e. “Shutdown” shall be defined as the time when the feed of all fuel is zero and the temperature at the urea injection falls below the reaction temperature. [P145-0049]
- f. “Transient” operation shall include and describe the operation of the plant during all phases of startup, shutdown, fuel switching and equipment cleaning where the fluidized bed gasifier load is less than 50% of the manufacturer's specified maximum. [P145-0049]
- g. Bio-diesel (B100) shall be defined as a petroleum replacement fuel consisting of 100% virgin and/or used vegetable oils (both edible & non-edible) and/or animal fats. No petroleum (distillate) fuel oil shall be blended with the B100 fuel. [P145-0049]

3. Operating Conditions

a. Limitation or Restriction

- i. Maximum Steam Capacity

Section III: Applicable Requirements and Compliance Demonstration

- (A) Feedwater Heater in service: 363,699 pph @ 955⁰F and 1,550 psia [P145-0049]
- (B) Feedwater Heater out of service: 337,784 pph @ 955⁰F and 1,550 psia [P145-0049]
- (C) Maximum Steam Capacity, may be used to determine maximum rated capacity (MRC) during required performance testing. [P145-0049]
- ii. Nominal Electrical Generation: 37.5 MW (net) [P145-0049]
- iii. Gasifier
 - (A) Maximum biomass consumption: 1,357 tons/day [P145-0049]
 - (B) Maximum biomass consumption over an Consecutive 12-month period: 495,305 tons/yr [P145-0049]
 - (C) Maximum biomass Heat Input (MMBtu/hr): 523.1 based on a HHV of 4,624 Btu/lb (4 hour block average) [P145-0049]
- iv. Startup Burners
 - (A) Maximum Hours of Startup Operations per calendar year shall be less than 500. All hours of refractory curing count toward the annual limit for startup. [P145-0049]
 - (B) Maximum fuel consumption for all three burners combined: 781 gal/hr, based on a design heating value of 128,047 Btu/gal. [P145-0049]
 - (C) Maximum Fuel Consumption per calendar year (gal/yr): 390,500 [P145-0049]
 - (D) Maximum Heat Input, for all three burners combined (MMBtu/hr): 100 [P145-0049]
- v. Heat Input for biomass and B100 are considered nominal values, based on average heat content for each fuel. In practice the actual heat input will vary for each fuel depending on fuel type and/or supplier. [P145-0049]
- vi. No Startup or Shutdown event shall exceed 14 hours in duration (unless the startup includes refractory curing). [P145-0049]
- vii. The Permittee shall develop a written startup, shutdown and malfunction (SSM) plan. [P145-0049]
- b. *Monitoring Requirements*
 - i. The Permittee shall continuously monitor steam capacity in pounds per hour using a 4 hour block average. [P145-0049]
 - ii. The Permittee shall continuously monitor wood biomass consumption. [P145-0049]
 - iii. The Permittee shall continuously monitor B100 fuel consumption using a non-resettable totalizing fuel meter, and the hours of operation associated with each operating scenario (startup and shutdown conditions). [P145-0049]
 - iv. The Permittee shall continuously monitor wood biomass heat input by using hourly steam production. [P145-0049]
 - v. The Permittee shall continuously monitor all hours of operation of the startup burners. [P145-0049]
- c. *Record Keeping Requirements*
 - i. The Permittee shall make and keep records of steam load in a 4 hour block average. [RCSA §22a-174-33(j)(1)(K)(ii)]
 - ii. The Permittee shall keep records of daily (biomass only), monthly, and consecutive 12 month fuel consumption, for each fuel. The consecutive 12 month fuel consumption shall be determined by adding (for each fuel) the current month's fuel consumption to that of the previous 11 months. The

Section III: Applicable Requirements and Compliance Demonstration

Permittee shall make these calculations within 30 days of the end of the previous month.
[P145-0049; RCSA §22a-174-33(j)(1)(K)(ii)]

- iii. The Permittee shall make and keep records of the wood biomass heat input on an hourly block average basis using steam production. Records shall include a sample calculation converting actual steam production to heat input.
[P145-0049]
- iii. The Permittee shall record and maintain records of the amounts of each fuel combusted during each month and calculate the annual capacity factor, as defined in 40 CFR §60.41b, individually for each fuel for the reporting period. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month.
[40 CFR §60.49b(d)(2); RCSA §22a-174-33(j)(1)(K)(ii)]
- iv. The Permittee shall make and keep records of hours of operation for all startup and shutdown events, including transient events.
[P145-0049]
- v. The Permittee shall maintain and make available to the commissioner the startup, shutdown, and malfunction plan.
[RCSA §22a-174-33(j)(1)(K)(ii)]
- vi. The Permittee shall record each and every exceedance of an emission limit or operating parameter contained in Section III.A of this Title V permit. Such records shall include the date and time of the exceedance, a description of the exceedance, and the duration of the exceedance. Such report shall contain copies of the exceedance records for the month, an explanation of the likely causes of the exceedances, and an explanation of remedial actions taken to correct the exceedance.
[P145-0049]

d. Reporting Requirements

- i. The Permittee shall notify the commissioner in writing each calendar quarter of any malfunction of the fluidized bed gasifier, the air pollution control equipment or the continuous monitoring system. The Permittee shall submit such notification within thirty days following the end of each calendar quarter. The notification shall include the following: [P145-0049]
 - (A) Description of the malfunction, date and time, the duration and a description of the circumstances surrounding the cause or likely cause of such malfunction; and [P145-0049]
 - (B) Description of all corrective actions and preventative measures taken and/or planned with respect to such malfunction. [P145-0049]

4. Pollution Control Equipment (SNCR/Baghouse/Multicyclone/Spray Dryer/Bed Additive Injection Systems)

a. Limitation or Restriction

- i. The Permittee shall operate and maintain pollution control devices in accordance with the manufacturer's specifications and written recommendations at all times during normal operation. During transient operation, pollution control devices shall be operated according to the manufacturer's specifications and written recommendations. The fluidized bed gasifier can be operated without SNCR urea or ammonia injection during a startup/shutdown when the SNCR is not within the manufacturer's specified operating temperature range. [P145-0049]
- ii. Selective Non-Catalytic Reduction (SNCR): NO_x [P145-0049]
 - (A) Make and Model: Spray Systems Technology

Section III: Applicable Requirements and Compliance Demonstration

- (B) Expected Control Efficiency: 70%
- iii. Baghouse: PM/PM₁₀/PM_{2.5} (filterable) and metals [P145-0049]
 - (A) Make and Model: Dustex – Model 6139 Pulse Jet Fabric Filter
 - (B) Number of compartments: 6 compartments, 270 bags/compartment
 - (C) Expected Control Efficiency: 99%
 - (D) The Permittee shall not cause or allow the baghouse unit to operate at a temperature above the manufacturer's recommended design range for the bag material used.
 - (E) The bag house filter media shall use acid resistant coatings.
- iv. Multicyclone: PM [P145-0049]
 - (A) Make and Model: Barron Fan Technology
 - (B) Expected Control Efficiency: 80%
- v. Spray Dryer and Bed Additive Injection: SO₂ and HCL [P145-0049]
 - (A) Make and Model: Dustex; Energy Products of Idaho
 - (B) Additive: Limestone
 - (C) Expected Control Efficiency: 90%, includes baghouse
 - (D) Bed Additive Injection shall be used to supplement spray dryer as necessary to achieve compliance with the SO₂ steady state emission limit in Sections III.A.7.a.i.(A) and (B) of this Title V permit.
- vi. Bag Leak Detection System [P145-0049]
 - (A) The Permittee shall operate a bag leak detection system on the baghouse at all times the gasifier is in operation. The system shall be subject to the following: [P145-0049]
 - (1) The bag leak detection system must be installed and maintained in accordance with the manufacturer's recommendations. Measurement of particulate emissions from baghouse leak detection system is to provide relative values rather than actual particulate emissions. [P145-0049]
 - (2) The bag leak detection system shall provide an output that will be converted to percent range of the detector. [P145-0049]
 - (3) The system shall be equipped with an alarm system that will sound an audible alarm when the 60 minute average exceeds 50% of full range for the detector. [P145-0049]
 - (4) The system shall be installed and operated in a manner consistent with available written guidance from the U. S. Environmental Protection Agency or, in the absence of such written guidance, the manufacturer's written specifications and recommendations for installation, operation and adjustment of the system. Data availability for this system will be consistent with the data availability requirements for the Permittee's Continuous Emissions Monitoring System (CEMS) as detailed in the Permittee's CEMS QA Plan, submitted and approved in accordance with RCSA Section §22a-174-4. [P145-0049]
 - (B) The O&M plan required pursuant to Section III.A.15.b of this Title V permit must include a corrective measures plan that specifies the procedures to be followed in the case of a bag leak detection system alarm. The corrective measures plan must include, at a minimum, the procedures used to determine and record the time and cause of the alarm as well as the corrective measures taken to correct the control device malfunction or minimize emissions as

Section III: Applicable Requirements and Compliance Demonstration

specified below: [P145-0049]

- (1) The Permittee must initiate the procedures used to determine the cause of the alarm within 30 minutes of the time the alarm first sounds; and [P145-0049]
- (2) The Permittee must alleviate the cause of the alarm by taking the necessary corrective measure(s) which may include, but are not to be limited to inspecting the baghouse for air leaks, torn or broken filter elements, or any other malfunctions that may cause an increase in emissions; sealing off defective bags or filter media; replacing defective bags or filter media, or otherwise repairing the control device; sealing off a defective baghouse compartment; cleaning the bag leak detection probe, or otherwise repairing the bag leak detection system; or shutting down the combustor. [P145-0049]

b. Monitoring Requirements

- i. The Permittee shall continuously monitor the baghouse inlet temperature using a 1 hour block average. [P145-0049]
- ii. The Permittee shall continuously monitor the Baghouse Leak Detection System using a 1 hour rolling average where an alarm triggers when the output exceeds 50% of full range of the detector. [P145-0049]
- iii. The Permittee shall continuously monitor the pressure drop across the baghouse using a 1 hour block average. [P145-0049]
- iv. The Permittee shall continuously monitor the SNCR temperature using a 1 hour block average. [P145-0049]
- v. The Permittee shall perform inspections of the boiler control devices as recommended by the manufacturer. [P145-0049]
- vi. The Permittee shall determine the baghouse control efficiency on a triennial basis, which must be completed no more than 37 months after the previous test. [P145-0049]
- vii. Control Efficiencies in Section III.A.4.a.ii through v of this Title V permit are design specifications. Actual control equipment efficiency may vary and such variation shall not be a violation of Sections III.A.4.a.ii through v of this permit. The actual control efficiencies obtained through stack testing are to be used solely for the purpose of calculating actual emissions of air pollutants when such is determined based on fuel sampling. [P145-0049]

c. Record Keeping Requirements

- i. The Permittee shall make and keep records of the baghouse inlet temperature on an hourly block average basis. [P145-0049]
- ii. The Permittee shall make and keep records of the Baghouse Leak Detection System output in pico-amps using a 1-hour rolling average. [RCSA §22a-174-33(j)(1)(K)(ii)]
- iii. The Permittee make and keep records of the pressure drop across the baghouse on an hourly block average basis. [P145-0049]
- iv. The Permittee shall make and keep records of the temperature of the gasifier gas entering the urea injection phase of the NO_x control system on an hourly block average basis. [P145-0049]
- v. The Permittee shall develop pollution control inspection procedures pursuant to the manufacturer's recommendations. The Permittee shall keep records of all inspections to pollution control devices. These records shall include the following: [P145-0049]
 - (A) date of inspection;

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- (B) any findings of pollution control failures; and
- (C) the time period for corrective action.
- vi. The Permittee shall keep records of the manufacturer's specifications for the filter bag materials. [RCSA §22a-174-33(j)(1)(K)(ii)]
- vii. The Permittee shall keep records for the bag leak detection system consisting of: [P145-0049]
 - (A) the date;
 - (B) time and duration of each alarm;
 - (C) the time the corrective action was initiated and completed;
 - (D) a brief description of the cause of the alarm; and
 - (E) the corrective action taken.

d. Reporting Requirements

- i. The Permittee shall notify the commissioner in writing each calendar quarter of any malfunction of the fluidized bed gasifier, the air pollution control equipment or the continuous monitoring systems. The Permittee shall submit such notification within 30 days following the end of each calendar quarter. The notification shall include the following: [P145-0049]
 - (A) Description of the malfunction, date and time, the duration and a description of the circumstances surrounding the cause or likely cause of such malfunction; and [P145-0049]
 - (B) Description of all corrective actions and preventative measures taken and/or planned with respect to such malfunction. [P145-0049]

5. Fuel and Ash Handling System

a. Limitation or Restriction

- i. The Permittee shall operate the Fuel Handling particulate controls, including all aspects of truck unloading, conveying/transfer points, disc screening/wood hogging, and storage piles at all times the plant is receiving/processing biomass fuel as follows: [P145-0049]
 - (A) Storage Piles
 - (1) Maintain wind screen on the fuel shed (fuel building) on all sides except for the equipment access openings. These openings shall be equipped with doors that will remain closed when processing fuel except for periods when physical access is required for maintenance or fuel handling. [P145-0049]
 - (2) Use Best Management Practices on the Long Term Storage Piles (all outside storage), which shall include but not be limited to the following: [P145-0049]
 - (a) Biomass storage piles will be managed on a first-in/first-out basis to minimize the accumulation of older fuel to the fullest extent practical; [P145-0049]
 - (b) Mechanical moving of biomass by front end loaders or other equipment shall be minimized to the fullest extent possible when windblown dust is observed by plant personnel; [P145-0049]
 - (c) Daily visual observations of the piles shall be performed to assess the potential for fugitive emissions formation. The Permittee shall be required to record observations and dust mitigation methods that are used; and [P145-0049]

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- (d) The use of water sprays or other covering materials shall be used to prevent airborne particulate matter from crossing the property line regardless of the impact on fuel quality. [P145-0049]
 - (3) The Generation Building Fuel Reject Chute shall be enclosed on three sides with a storage flap over the opening for equipment access. [P145-0049]
 - (4) Storage piles shall not cause opacity greater than 20% during any six minute block average. [P145-0049]
 - (B) Tipping Area
 - (1) Use of dry fog suppression around all areas of the tipping pad (associated with the truck tippers) that are open to the atmosphere receiving wood; [P145-0049]
 - (2) Wind screen to partially enclose the area directly behind and to the sides of the receiving area so that the receiving area is below the dry fogging devices; [P145-0049]
 - (3) Daily visual observations of the dry fog system shall be performed to ensure that the spray nozzles are not clogged and operating as designed; [P145-0049]
 - (4) Dry fog suppression shall be used at all times that the plant is receiving/processing wood in the tipping area; and [P145-0049]
 - (5) Opacity shall not exceed 20% during any 6-minute block average. [P145-0049]
 - (C) Conveyors and Transfer Points
 - (1) All $\frac{3}{4}$ enclosed conveyors (the material conveying portion of the belt is $\frac{3}{4}$ enclosed) shall use dry fog at the transfer points; [P145-0049]
 - (2) All open conveyors and transfer points will use dry fog and wind screens; [P145-0049]
 - (3) All conveyors from the fuel shed to the boiler will be $\frac{3}{4}$ enclosed (the material conveying portion of the belt is $\frac{3}{4}$ enclosed); [P145-0049]
 - (4) Operation of the conveyors shall immediately cease if clogging and/or spilling of the fuel material is detected, the conveyors may resume operation only after the conveyor has been adequately cleaned. All reasonable measures will be taken to prevent fugitive dust emissions during the cleaning and operation of the conveyors; [P145-0049]
 - (5) Dry fog suppression shall be used at all times that the plant is processing wood fuel; [P145-0049]
 - (6) Use the automated telescoping chute on the outdoor storage pile to limit the fuel drop to less than three feet; and [P145-0049]
 - (7) Opacity shall not exceed 20% during any 6-minute block average. [P145-0049]
 - (D) Disc Screen and Wood Hog
 - (1) Full enclosure surrounding the disc screen and wood hog; [P145-0049]
 - (2) Dry Fog Suppression shall be used at all times the plant is processing wood fuel; and [P145-0049]
 - (3) Opacity shall not exceed 20% in any 6-minute block average. [P145-0049]
- ii. The Permittee shall operate the Ash Handling particulate controls, including all aspects of truck loading, conveying/transfer points at all times the plant is conveying ash to include the following: [P145-0049]

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- (A) Ash silos vented to the baghouse or negative pressure dry conveyance to enclosed trailers; [P145-0049]
 - (B) Pug Mill shall be used to add water to increase moisture content to approximately 20%. The Permittee may transfer dry ash to enclosed trailers under negative pressure; and [P145-0049]
 - (C) Opacity shall not exceed 20% in any 6-minute block average. [P145-0049]
- iii. A water vehicle and dust sweeping vehicle (or alternative and equally effective dust suppression methods) must be available on site at all times and be used as needed. If the water vehicle and dust sweeping vehicle is not available (i.e. required maintenance) the facility shall employ alternative and equally effective dust suppression methods. [P145-0049]
- iv. Transporting Wood and Ashes [P145-0049]
- (A) Vehicles transporting wood and ashes shall keep their beds covered at all times when the vehicles enter and exit the premises. [P145-0049]
 - (B) Upon unloading the wood into the tippers and prior to leaving the premises, visual observations of the vehicles shall be performed to ensure that there are not any loose materials hanging on the exterior of the vehicles. [P145-0049]
- b. *Monitoring Requirements*
- i. The Permittee shall perform daily inspections/observations of the fuel handling system control devices. EPA Method 22 is sufficient for conducting visual observations. [P145-0049]
 - ii. The Permittee shall conduct recurrent Opacity testing annually on the fuel handling system found in Section III.A.5.a of this Title V permit, but not more than 13 calendar months following the previous performance test. [P145-0049]
- c. *Record Keeping Requirements*
- i. The Permittee shall record daily the observations from the fuel handling equipment, which includes the tipping area, conveyors, disc screen/hog, storage piles and ash pug mill. The records shall include, but are not limited to the following: [P145-0049]
 - (A) The date and time of the observation;
 - (B) Recording the presence of visible emissions or faulty control systems;
 - (C) Length of time the control system was inoperable; and
 - (D) Description of all corrective actions and preventative measures taken.
- d. *Reporting Requirements*
- The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

6. Particulate Matter

- a. *Limitation or Restriction*
- i. Gasifier (Steady State and Transient)
 - (A) $PM_{10/2.5}$ (Total, includes filterable and condensable):
 - (1) Less than or equal to 2.65E-02 lb/MMBtu [P145-0049]
 - (2) Less than or equal to 60.7 tons/yr (All Modes of Operation) [P145-0049]

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(B) PM (filterable):

(1) Less than or equal to 0.030 lb/MMBtu [40CFR§60.43b(h)(1)]

b. Monitoring Requirements

- i. The Permittee shall conduct recurrent stack testing for PM, PM_{10 (total)}, PM_{2.5 (total)} on a triennial basis, which must be completed no more than 37 months after the previous test. [P145-0049]
- ii. The Permittee shall conduct recurrent stack testing for PM (filterable) in accordance with 40 CFR §§63.11220 and 60.46b(d).
- iii. Stack test results shall be reported in units of lb/MMBtu. [P145-0049]

c. Record Keeping Requirements

- i. The Permittee shall calculate and record the monthly and consecutive 12 month PM, PM_{10 (total)}, and PM_{2.5 (total)} emissions in units of tons. The consecutive 12 month emissions shall be determined by adding the current month's emissions (for each pollutant) to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month. Startup, Shutdown, and Transient emissions shall be included in this calculation. [P145-0049]
- ii. The Permittee shall maintain records of all performance tests conducted to determine compliance with the emissions limits in Part III.A.6.a. of this permit. [P145-0049]

d. Reporting Requirements

- i. The Permittee shall submit all required reports in accordance with 40 CFR §60.49b.
- ii. The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

7. Sulfur Dioxide (SO₂)

a. Limitation or Restriction

i. Gasifier (Steady State and Transient)

(A) Less than or equal to 0.035 lb/MMBtu [P145-0049]

(B) Less than or equal to 15.4 ppmvd @ 7% O₂, 3 hour Block Average

Equivalent emission rate based on wood F-factor of 9,240 dscf/MMBtu
[40 CFR Part 60, Appendix A, Table 19-2] (Steady State Operation) [P145-0049]

(C) Less than or equal to 15.4 ppmvd @ 7% O₂, Daily Block Average (Transient Operation)
[P145-0049]

(D) Less than or equal to 81.29 tons/yr (All Modes of Operation) [P145-0049]

b. Monitoring Requirements

- i. The Permittee shall use a CEM to continuously monitor SO₂ emissions on a 3 hour block average. [P145-0049]
- ii. The Permittee shall comply with the CEM requirements as set forth in RCSA §22a-174-4. [P145-0049]
- iii. Recurrent stack testing may not be required for pollutants using CEM. [P145-0049]

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iv. If applicable, stack tests results shall be reported in units of lb/MMBtu and ppmvd @ 7% O₂. [P145-0049]

c. Record Keeping Requirements

- i. The Permittee shall calculate and record the monthly and consecutive 12 month SO₂ emissions in units of tons. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month. Startup, Shutdown, and Transient emissions shall be included in this calculation. [P145-0049]
- ii. The Permittee shall maintain records of all performance tests conducted to determine compliance with the emissions limits in Part III.A.7.a. of this permit. [P145-0049]

d. Reporting Requirements

The Permittee shall submit all required reports pursuant to RCSA §22a-174-4(d). [P145-0049]

8. Nitrogen Oxides (NO_x)

a. Limitation or Restriction

i. Gasifier (Steady State)

(A) Less than or equal to 0.075 lb/MMBtu [P145-0049]

(B) Less than or equal to 45.3 ppmvd @ 7% O₂, 24 hour block

Equivalent emission rate based on wood F-factor of 9,240 dscf/MMBtu
[40 CFR Part 60, Appendix A, Table 19-2] [P145-0049]

(C) Less than or equal to 171.29 tons/yr (All Modes of Operation) [P145-0049]

ii. Transient Operation, including Startup and Shutdown Emissions (B100 Firing) [P145-0049]

(A) Until May 31, 2023:

(1) Less than or equal to 0.20 lb/MMBtu (Daily Block Average) [P145-0049]

(B) On and after June 1, 2023:

(1) 0.10 lb/MMBtu (Daily Block Average) [P145-0049]

(2) 0.15 lb/MMBtu (Non-Ozone Season, 7-month average, October 1 through April 30)
[P145-0049]

iii. NO_x Emissions Limits while simultaneously combusting one or more fuels shall be determined in accordance with RCSA §22a-174-22e(d)(10).

b. Monitoring Requirements

i. The Permittee shall use a CEM to continuously monitor NO_x emissions on a 24 hour block average. [P145-0049]

ii. The Permittee shall comply with the CEM requirements as set forth in RCSA §22a-174-4. [P145-0049]

iii. Recurrent stack testing may not be required for pollutants using CEM. [P145-0049]

iv. If applicable, stack tests results shall be reported in units of lb/MMBtu and ppmvd @ 7% O₂. [P145-0049]

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- v. The Permittee shall comply with the monitoring requirements for nitrogen oxides in accordance with 40 CFR §60.48b.

c. Record Keeping Requirements

- i. The Permittee shall calculate and record the monthly and consecutive 12 month NO_x emissions in units of tons. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month. Startup, Shutdown, and Transient emissions shall be included in this calculation. [P145-0049]
- ii. The Permittee shall calculate and record the monthly and consecutive 12 month NO_x emissions in units of tons for EU-1 and the three emergency engines identified as EU-2, EU-4 and EU-5, in this Title V permit. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month. Startup, Shutdown, and Transient emissions shall be included in this calculation. [P145-0049]
- iii. The Permittee shall make and keep records pursuant to RCSA §22a-174-22e. [P145-0049]
- iv. The Permittee shall maintain records of all performance tests conducted to determine compliance with the emissions limits in Part III.A.8.a. of this permit. [P145-0049]

d. Reporting Requirements

- i. The Permittee shall submit all required reports in accordance with RCSA §22a-174-22e. [P145-0049]
- ii. The Permittee shall submit all required reports pursuant to RCSA §22a-174-4(d). [P145-0049]

9. Volatile Organic Compounds (VOC)

a. Limitation or Restriction

- i. Gasifier (Steady State)
 - (A) Less than or equal to 0.012 lb/MMBtu [P145-0049]
 - (B) Less than or equal to 26.59 tons/yr (All Modes of Operation) [P145-0049]
- ii. Startup and Shutdown Emissions, Including Transient Operation
 - (A) Less than or equal to 0.03 lb/MMBtu [P145-0049]

b. Monitoring Requirements

- i. The Permittee shall conduct recurrent stack testing for VOC emissions on a triennial basis, which must be completed no more than 37 months after the previous test. [P145-0049]
- ii. Stack test results shall be reported in units of lb/MMBtu. [P145-0049]

c. Record Keeping Requirements

- i. The Permittee shall calculate and record the monthly and consecutive 12 month VOC emissions in units of tons. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month. Startup, Shutdown, and Transient emissions shall be included in this calculation. [P145-0049]
- ii. The Permittee shall maintain records of all performance tests conducted to determine compliance with the emissions limits in Part III.A.9.a. of this permit. [P145-0049]

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d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

10. Carbon Monoxide (CO)

a. Limitation or Restriction

i. Gasifier (Steady State)

(A) Less than or equal to 0.105 lb/MMBtu [P145-0049]

(B) Less than 103.7 ppmvd @7% O₂, 8 hour block average

Equivalent emission rate based on wood F-factor of 9,240 dscf/MMBtu
[40 CFR Part 60, Appendix A, Table 19-2] [P145-0049]

(C) Less than or equal to 239.47 tons/yr (All Modes of Operation) [P145-0049]

ii. Startup and Shutdown Emissions, Including Transient Operation

(A) Less than or equal to 1.0 lb/MMBtu [P145-0049]

b. Monitoring Requirements

i. The Permittee shall use a CEM to continuously monitor CO emissions on an 8 hour block average. [P145-0049]

ii. The Permittee shall comply with the CEM requirements as set forth in RCSA §22a-174-4. [P145-0049]

iii. Recurrent stack testing may not be required for pollutants using CEM. [P145-0049]

iv. If applicable, stack tests results shall be reported in units of lb/MMBtu and ppmvd @ 7% O₂. [P145-0049]

c. Record Keeping Requirements

i. The Permittee shall calculate and record the monthly and consecutive 12 month CO emissions in units of tons. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month. Startup, Shutdown, and Transient emissions shall be included in this calculation. [P145-0049]

ii. The Permittee shall maintain records of all performance tests conducted to determine compliance with the emissions limits in Part III.A.10.a. of this permit. [P145-0049]

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

11. Lead

a. Limitation or Restriction

i. Gasifier (Steady State and Transient)

(A) Less than or equal to 1.4E-04 lb/MMBtu [P145-0049]

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(B) Less than or equal to 0.32 ton/yr [P145-0049]

b. Monitoring Requirements

The Permittee shall conduct recurrent stack testing for Pb annually, but not more than 13 calendar months following the previous performance test. Compliance shall be determined either by fuel sampling or stack testing. When fuel sampling, the most recent baghouse control efficiency test result may be used to calculate actual emissions. [P145-0049]

c. Record Keeping Requirements

The Permittee shall calculate and record the monthly and consecutive 12 month Lead emissions in units of tons based on latest stack test data. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month. [P145-0049]

12. Ammonia Slip

a. Limitation or Restriction

i. Gasifier (Steady State)

(A) Less than 20 ppmvd @7% O₂, 24 hour block average [STATE ONLY REQUIREMNT]
[P145-0049]

b. Monitoring Requirements

i. The Permittee shall use a CEM to continuously monitor ammonia emissions on a 24 hour block average. [P145-0049]

ii. If applicable, stack tests results shall be reported in units of ppmvd @ 7% O₂. [P145-0049]

c. Record Keeping Requirements

i. The permittee shall calculate and record the 24 hour block average ammonia concentration for the gasifier. Such records shall include a sample calculation for each pollutant. The permittee shall make these calculations within 30 days of the end of the previous month.

[RCSA §22a-174-33(j)(1)(K)(ii)]

ii. The Permittee shall make and keep records that demonstrate the ammonia emissions are less than the maximum allowable stack concentration (MASC). [P145-0049]

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

13. Hazardous Air Pollutants (HAP)

a. Limitation or Restriction

i. Gasifier

(A) This equipment shall not cause an exceedance of the Maximum Allowable Stack Concentration (MASC) for any hazardous air pollutant (HAP) emitted and listed in RCSA §22a-174-29. [STATE ONLY REQUIREMENT] [P145-0049]

(B) The Permittee shall not emit more than the following for any individual HAP listed in Section 112(b) of the Clean Air Act Amendments of 1990 or 40 CFR 63, Subpart C at this premises:
[P145-0049]

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- (1) 0.00436 lb/MMBtu [P145-0049]
- (2) 10 tons/year or 25 tons/year in aggregate [P145-0049]

b. Monitoring Requirements

- i. The Permittee shall conduct recurrent stack testing for HAPs annually, but not more than 13 calendar months following the previous performance test. Compliance shall be determined either by fuel sampling or stack testing, if applicable. When fuel sampling, the most recent baghouse control efficiency test may be used to calculate actual emissions. [P145-0049]
 - (A) Lead and Arsenic (Fuel Sampling or Stack Testing) [P145-0049]
 - (B) Hydrogen Chloride (Stack Testing) [P145-0049]
- ii. The Permittee may be required to demonstrate compliance for any hazardous air pollutant emitted from this unit that is listed on Table 29-1, Table 29-2, or Table 29-3 of RCSA Section 22a-174-29 or Section 112(b) of the Clean Air Act Amendments of 1990. [STATE ONLY REQUIREMENT] [P145-0049]
- iii. Stack tests results shall be reported in units of lb/MMBtu or $\mu\text{g}/\text{m}^3$. [P145-0049]

c. Record Keeping Requirements

- i. The Permittee shall calculate and record the monthly and consecutive 12 month hazardous air pollutant emissions in tons based on the latest stack test data. The consecutive 12 month emissions shall be determined by adding (for each pollutant) the current month's emissions to that of the previous 11 months. The Permittee shall make and keep records of all HAPs listed in Section 112(b) of the Clean Air Act Amendments of 1990 emitted at this premises for which emissions factors are available, using either AP-42 Fifth Edition, Volume 1, Chapter 1.6 or stack emissions data. [P145-0049]
- ii. The Permittee shall make and keep records of the MASC and ASC for all hazardous air pollutants emitted and listed in RCSA Section 22a-174-29 through either initial, recurring testing/fuel sampling, or AP-42, as applicable. [STATE ONLY REQUIREMENT] [P145-0049]

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

14. Opacity (Gasifier)

a. Limitation or Restriction

- i. Less than or equal to 10% in any six-minute block average as measured by 40 CFR Part 60, Appendix A, Reference Method 9. [P145-0049]
- ii. Less than or equal to forty percent (40%) as measured by 40 CFR Part 60, Appendix A, Reference Method 9, reduced to a one-minute block average. [RCSA §22a-174-18(b)(2)(B)]
- iii. Opacity shall not exceed 20 percent (6-minute average), except for one 6-minute period per hour of not more than 27 percent. [40 CFR §60.43b(f)]

b. Monitoring Requirements

- i. The Permittee shall operate and maintain installed opacity COMS equipment in accordance with subsections RCSA §22a-174-4(c)(3) and (c)(4). [RCSA §22a-174-4(b)(1)(B); P145-0049]

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- ii. The Permittee shall comply with the opacity monitoring requirements as required in 40 CFR §§60.48b(a) and (e)(1).
- iii. The Permittee shall meet the following performance specifications and quality assurance requirements:
 - (A) Calibration shall be adjusted whenever the daily zero or upscale calibration exceeds plus/minus two percent (+ 2%) opacity; [RCSA §22a-174-4(c)(4)(B)(i)]
 - (B) Data shall be invalid for calculating data availability in accordance with RCSA §22a-174-4(c)(5) if the zero or upscale calibration value exceeds either the reference zero or the upscale calibration value recorded during the most recent clear-path calibration by plus/minus two percent ($\pm 2\%$) opacity for five (5) consecutive days or plus/minus five percent ($\pm 5\%$) opacity on any single day. The period of invalid data begins with either the fifth consecutive occurrence of a drift value exceeding plus/minus two percent ($\pm 2\%$) opacity or with the last daily check preceding the single occurrence of a drift value exceeding plus/minus five percent ($\pm 5\%$) opacity. The period of invalid data shall end when a calibration drift check, conducted after corrective action, demonstrates that reliable monitoring data is being generated; [RCSA §22a-174-4(c)(4)(B)(ii)]
 - (C) Quality assurance audits shall be conducted during each calendar quarter in which the source operates; [RCSA §22a-174-4(c)(4)(B)(iii)]
 - (D) The commissioner shall be notified, in writing, no fewer than 30 days prior to the initially proposed quality assurance audit; and [RCSA §22a-174-4(c)(4)(B)(iv)]
 - (E) Quality assurance audits shall be conducted in accordance with the procedures contained in "Performance Audit Procedures for Opacity Monitors," EPA Document No. 450/4-92/010, dated April 1992. If EPA promulgates quality assurance procedures in 40 CFR 60, Appendix F, quality assurance audits shall be conducted according to such procedures. If either EPA Document No. 450/4-92/010 or subsequently promulgated procedures in 40 CFR 60, Appendix F, as applicable, does not contain audit procedures for the opacity CEM selected by the owner or operator, the owner or operator shall, in writing, propose audit procedures to the commissioner for review and written approval at least 30 days prior to the initial opacity CEM audit. [RCSA §22a-174-4(c)(4)(B)(v)]
- iv. The Permittee shall ensure that data be available for no less than ninety-five (95%) of the total operating hours of the source in any calendar quarter. [RCSA §22a-174-4(c)(5)(A)(ii)]

c. Record Keeping Requirements

- i. The Permittee shall record each and every opacity exceedance. Such records shall include the date and time of the exceedance, a description of the exceedance, and the duration of the exceedance. Such report shall contain copies of the exceedance records for the month, an explanation of the likely causes of the exceedances, and an explanation of remedial actions taken to correct the exceedance. [P145-0049; 40 CFR §60.49b(f)]
- ii. The Permittee shall keep all applicable records in accordance with 40 CFR§49b(f).

d. Reporting Requirements

- i. The Permittee shall submit all required excess emission reports for opacity. [40 CFR 60.49b(h)(1)]
- ii. The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

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15. Special Requirements

a. *NO_x Emission Reduction Offsets*

- i. The Permittee shall possess at least 210 tons of external emissions reductions to offset the 174.25 tons of NO_x emitted from the following sources to comply with RCSA §22a-174-3a(1): [P145-0049]
 - (A) EU-1: 37.5 MW Biomass Fluidized Bed Gasification Power Plant, Permit Number 145-0049. [P145-0049]
 - (B) EU-2: 500 kW Cummins DFEK ULSD fired emergency generator, 12 Mill Brook Road, RCSA §22a-174-3b(e). [P145-0049]
 - (C) EU-4: 157 bhp Clarke/John Deere ULSD fired emergency fire pump, 12 Mill Brook Road. [P145-0049]
 - (D) EU-5: 150 kW Cummins DSGAC ULSD emergency generator, Packer Road Pump House. [P145-0049]
- ii. Such a quantity is sufficient to offset the emissions from the sources listed above at a ratio of 1.2 to 1 tons of reduction for every ton of NO_x emissions allowed under the sources listed above. Specifically, the reductions are real, quantifiable, surplus, permanent, and enforceable as defined in RCSA §22a-174-3a(1)(5). The Permittee shall maintain sole ownership and possession of these emissions reductions for the duration of this permit and any subsequent changes to the permit. [P145-0049]

Such offsets have been obtained from the following sources:

- (A) Shell Energy North America - (Serial No. NYDEC-1-4720-00777-37.95) [P145-0049]
 - (B) Shell Energy North America - (Serial No. NYDEC-1-4722-00799-56.15) [P145-0049]
 - (C) OSRAM Sylvania - (Serial No. RI-DEM-21-07-115.9) [P145-0049]
- iii. The offsets were approved by the Department on December 28, 2010. The Permittee shall maintain sole ownership and possession of these emissions reductions for the duration of this permit and any subsequent changes to the permit. [P145-0049]

b. *Operating and Maintenance Plan (O&M)*

The Permittee shall maintain an operating and maintenance plan (O&M) in accordance with the manufacturer's specifications and written recommendations. Appropriate records shall be made to verify that there is proper operation, monitoring and maintenance of all pollution control devices. The plan shall detail the procedures for operation, inspection, maintenance and corrective measures for all components of the combustor, including all associated pollution control equipment. [P145-0049]

16. National Emissions Standards for Hazardous Air Pollutants for Industrial, Commercial and Institutional Boilers at Area Sources (NESHAP) 40 CFR Part 63 Subpart JJJJJ

a. *Limitation or Restriction*

- i. The Permittee shall initiate corrective action within 1 hour of a bag leak detection system alarm and operate and maintain the fabric filter system such that the alarm does not sound more than 5 percent of the operating time during a 6-month period. [40 CFR §63.11222(a)(4)]
- ii. The Permittee shall comply with the filterable PM limit. [40 CFR §63.11201(a)]
- iii. The Permittee shall comply with each work practice standard specified in Table 2 to Subpart JJJJJ of Part 63. [40 CFR §63.11201(b)]
 - (A) The Permittee shall minimize the boiler's startup and shutdown periods and conduct startups according to the manufacturer's recommended procedures. If manufacturer's recommended

Section III: Applicable Requirements and Compliance Demonstration

procedures are not available, you must follow recommended procedures for a unit of similar design for which manufacturer's recommended procedures are available.
[40 CFR §63.11214 and Table 2 to Subpart JJJJJ of Part 63]

- iv. The Permittee shall comply with each operating limit specified in Table 3 to Subpart JJJJJ of Part 63. [40 CFR §63.11201(c)]
 - (A) Maintain opacity to less than or equal to 10 percent (daily block average)
[Table 3 to Subpart JJJJJ of Part 63, Item 1]
 - (B) Maintain the operating load such that it does not exceed 110 percent of the average operating load recorded during the most recent performance stack test.
[Table 3 to Subpart JJJJJ of Part 63, Item 7]
 - v. The Permittee at all times operate and maintain EU-1, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. [40 CFR §63.11205(a)]
 - vi. The Permittee shall conduct the applicable biennial or 5-year tune-up as specified in 40 CFR §63.11223 no later 61 months after the previous tune-up. [40 CFR §63.11223]
 - vii. The Permittee shall demonstrate continuous compliance with the applicable work practice and management practice standards. [40 CFR §63.11223]
- b. Monitoring Requirements*
- i. The Permittee shall demonstrate compliance with the PM and opacity limits found in Part III.A.16.a. of this Title V permit using stack testing and a continuous opacity monitoring system (COMS).
[40 CFR §§63.11205(b) and 63.11220(b)]
 - ii. The Permittee shall comply with the subsequent performance test requirements pursuant to 40 CFR §63.11220.
 - iii. The Permittee shall comply with the site-specific monitoring requirements pursuant to 40 CFR §§63.11205(c), 63.11221, and 63.11224(c).
 - iv. The Permittee shall comply with the opacity monitoring requirements pursuant to 40 CFR §63.11224(e).
 - v. The Permittee must conduct all performance tests according to 40 CFR §63.7(c), (d), (f), and (h) and develop a site-specific test plan according to the requirements in 40 CFR §63.7(c).
[40 CFR §63.11212(a)]
 - vi. The Permittee must comply with the monitoring requirements with each applicable emission limit and operating limit in Tables 1 and 3 of Subpart JJJJJJ of Part 63.
[40 CFR §§63.11222 and 63.11224(b)]
- c. Record Keeping Requirements*
- i. The Permittee shall keep the following records of the bag leak detection system in accordance with 40 CFR §63.11222(a)(4):
 - (A) Date;
 - (B) Time;
 - (C) Duration of each alarm;
 - (D) The time corrective action was initiated and completed; and
 - (E) A brief description of the cause of the alarm and corrective action taken.

Section III: Applicable Requirements and Compliance Demonstration

(F) The Permittee shall record the percent of the operating time during each 6-month period that the alarm sounds. In calculating this operating time percentage, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm is counted as a minimum of 1 hour. If you take longer than 1 hour to initiate corrective action, the alarm time is counted as the actual amount of time taken to initiate corrective action in accordance with 40 CFR §63.11222(a)(4).

ii. The Permittee shall maintain the applicable records pursuant to 40 CFR §§63.11225(c) and (d).

iii. The Permittee shall submit the results of each performance test pursuant to 40 CFR §63.11225(d).

d. Reporting Requirements

i. The Permittee shall submit all required reports pursuant to 40 CFR §63.11222(b).

ii. The Permittee shall submit all required notices pursuant to and 40 CFR §63.11225(a).

iii. The Permittee shall submit an annual compliance certification report pursuant 40 CFR §63.11225(b).

17. Standards of Performance for New Stationary Sources (NSPS) for Small Industrial-Commercial-Institutional Steam Generating Units 40 CFR Part 60 Subpart Db

a. Limitation or Restriction

i. Opacity shall not exceed 20 percent (6-minute average), except for one 6-minute period per hour of not more than 27 percent. [40 CFR §60.43b(f)]

ii. Particulate matter (PM) emissions shall not exceed 0.030 lb/MMBtu heat input. [40 CFR §60.43b(h)(1)]

b. Monitoring Requirements

i. The Permittee shall conduct an initial performance test as required under 40 CFR §60.8, and shall conduct subsequent performance tests as requested by the Administrator, pursuant to 40 CFR §60.46b(d). [40 CFR §60.46b(d)]

ii. The procedures under 40 CFR §60.13 shall be followed for installation, evaluation, and operation of the continuous monitoring systems. [40 CFR §60.48b(e)]

(A) The span value for the COMS shall be between 60 and 80 percent. [40 CFR §60.46b(e)(1)]

c. Record Keeping Requirements

i. The owner or operator of an affected facility shall record and maintain records of the amounts of each fuel combusted during each day and calculate the annual capacity factor individually for distillate oil and wood for the reporting period. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month.

[40 CFR §60.49b(d)(1)]

ii. The Permittee shall maintain records of opacity in accordance with 40 CFR §60.46b(f). [40 CFR §60.46b(f)]

d. Reporting Requirements

The Permittee shall submit opacity excess emission reports for any excess emissions that occurred during the reporting period in accordance with 40 CFR §60.46b(h)(1). [40 CFR §60.46b(h)(1)]

Section III: Applicable Requirements and Compliance Demonstration

B. EMISSIONS UNIT 2 (EU-2): 500 kW Cummins DFEK ULSD fired Emergency Generator Engine, [RCSA §22a-174-3b; STATE ONLY REQUIREMENT]

1. Operating Parameter

a. Limitation or Restriction

- i. The Permittee shall not operate this unit except during periods of testing and scheduled maintenance or during an emergency and unless the following are met:
 - (A) Operation shall not exceed 300 hours during any twelve month rolling aggregate. [RCSA §22a-174-3b(e)(2)(C); STATE ONLY REQUIREMENT]
 - (B) Maximum fuel sulfur content shall be less than 15 ppm. [RCSA §22a-174-3b(e)(2)(D)]

b. Monitoring Requirements

- i. The Permittee shall monitor the calendar hours of operation. [P145-0049]
- ii. Record keeping specified in Section III.B.1.c. of this Title V permit shall be sufficient to meet other Monitoring Requirements pursuant to RCSA §22a-174-33. [RCSA §22a-174-33(j)(1)(K)(ii)]

c. Record Keeping Requirements

- i. The Permittee shall make and keep records of the hours of operation for each month and each twelve month rolling aggregate. [RCSA §22a-174-3b(e)(4); STATE ONLY REQUIREMENT]
- ii. The Permittee shall keep records of the fuel certification for each delivery fuel from a bulk petroleum provider or a copy of the current contract with the fuel supplier supplying the fuel used by this equipment that includes the applicable sulfur content of the fuel as a condition of each shipment. Shipping receipt or contract shall include the date of delivery, the name of the fuel supplier, type of fuel delivered, the percentage of sulfur in such fuel, by weight, dry basis, and the method used to determine the sulfur content of such fuel. [RCSA §22a-174-3b(h)(1); STATE ONLY REQUIREMENT]

d. Reporting Requirements

The Permittee shall provide any required records pursuant to RCSA §22a-174-3b(e) to the commissioner upon request. [RCSA §22a-174-3b(i)]

2. Operating Parameter: 40 CFR Part 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines; 2007 model year and later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder that are not fire pump engines, constructed after July 11, 2005 and manufactured after April 1, 2006

a. Limitation or Restriction

- i. The Permittee shall comply with the emission standards specified in §60.4205(b). The Permittee must comply by purchasing an engine certified to the emission standards in §60.4205(b), for the same model year and maximum engine power. The engine must be installed and configured according to manufacturer's emission-related specifications. [40 CFR §60.4211(c)]
- ii. The Permittee shall comply with the applicable compliance requirements found in 40 CFR §60.4211.
- iii. The Permittee shall change only those emission-related settings that are permitted by the manufacturer. [40 CFR §60.4211(a)(2)]

Section III: Applicable Requirements and Compliance Demonstration

- iv. The Permittee shall meet the requirements of 40 CFR parts 89, 94 and/or 1068, as applicable. [40 CFR §60.4211(a)(3)]
- v. Maximum fuel sulfur content: Less than 15 ppm. [40 CFR§60.4207(b)]

b. Monitoring Requirements

The Permittee shall comply with the applicable monitoring requirements found in 40 CFR §60.4209.

c. Record Keeping Requirements

- i. The Permittee shall comply with the applicable record keeping requirements found in 40 CFR §60.4214.
- ii. The Permittee shall maintain records sufficient to determine compliance with the limitation or restriction in Section III.B.2.a. of this Title V permit. [RCSA §22a-174-33(j)(1)(K)]

d. Reporting Requirements

The Permittee shall comply with the applicable reporting requirements found in 40 CFR §60.4214.

C. GROUPED EMISSIONS UNIT 2 (GEU-2): Packer Road Pump House (EU-4) and Fire Pump (EU-5) Emergency Engines; NSR Permit 145-0049 Collateral Conditions

1. Operating Parameters

a. Limitation or Restriction

- i. The Permittee shall operate GEU-2 less than 300 hours in any calendar year, combined. [P145-0049]
- ii. Maximum fuel sulfur content: Less than 15 ppm, by weight [RCSA §22a-174-19b(d)(2)]

b. Monitoring Requirements

The Permittee shall monitor the calendar hours of operation. [P145-0049]

c. Record Keeping Requirements

- i. The Permittee shall make and keep records of the hours of operation for the two unpermitted emergency engines identified as GEU-2, combined. [P145-0049]
- ii. The Permittee shall maintain records of the sulfur content of the fuel combusted and the quantity purchased. A written certification or a written contract with a fuel supplier is sufficient to satisfy the requirements if the certification or contract identifies: [RCSA §22a-174-19b(g)(3)]
 - (A) The name of the fuel seller;
 - (B) The type of fuel purchased;
 - (C) The sulfur content of the fuel purchased; and
 - (D) The method used to determine the sulfur content of the fuel purchased

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

Section III: Applicable Requirements and Compliance Demonstration

2. Operating Parameter: 40 CFR Part 60 Subpart III – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

EU-4: 2007 model year and later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder that are not fire pump engines, constructed after July 11, 2005 and manufactured after April 1, 2006.

EU-5: Fire pump engines with a displacement of less than 30 liters per cylinder, manufactured after model year 2009, Table 3 of 40 CFR part 60, subpart III.

a. Limitation or Restriction

- i. EU-4: The Permittee shall comply with the emission standards specified in §60.4205(b). The Permittee must comply by purchasing an engine certified to the emission standards in §60.4205(b), for the same model year and maximum engine power. The engine must be installed and configured according to manufacturer's emission-related specifications. [40 CFR §60.4211(c)]
- ii. EU-5: The Permittee shall comply with the emission standards specified in §60.4205(c). The Permittee must comply by purchasing an engine certified to the emission standards in §60.4205(c), for the same model year and maximum engine power. The engine must be installed and configured according to manufacturer's emission-related specifications. [40 CFR §60.4211(c)]
- iii. The Permittee shall comply with the applicable compliance requirements found in 40 CFR §60.4211.

b. Monitoring Requirements

Record keeping specified in Section III.C.2.c of this Title V permit shall be sufficient to meet other Monitoring Requirements pursuant to RCSA §22a-174-33.

[RCSA §22a-174-33(j)(1)(K)(ii)]

c. Record Keeping Requirements

The Permittee shall comply with the applicable record keeping requirements found in 40 CFR §60.4214.

d. Reporting Requirements

The Permittee shall comply with the applicable reporting requirements found in 40 CFR §60.4214.

D. EMISSIONS UNIT 2 (EU-2) and GROUPED EMISSIONS UNIT 2 (GEU-2):

RCSA §22a-174-22e NO_x RACT Compliance

1. Operating Limitations

a. Limitation or Restriction

The Permittee shall not operate EU-2 or GEU-2 for routine, scheduled testing or maintenance on any day for which the commissioner has forecast that ozone levels will be “moderate to unhealthy for sensitive groups” or greater. If, subsequent to the initial forecast of “moderate to unhealthy for sensitive groups” or greater, the forecast is revised to “moderate” or lower, the owner or operator is no longer prohibited from operating the engine for routine, scheduled testing or maintenance for the remainder of that day. An owner or operator of an emergency engine may rely on an ozone forecast of “moderate” or lower obtained after 3 p.m. on the preceding day. Subsequent changes to the ozone forecast after 3 p.m. that forecast ozone levels of “moderate to unhealthy for sensitive groups” or greater shall not obligate the owner or operator to refrain from operation of the emergency engine at the facility on the following day.

[RCSA §22a-174-22e(d)(14)]

Section III: Applicable Requirements and Compliance Demonstration

b. Monitoring Requirements

Record keeping specified in Section III.D.2.c of this Title V permit shall be sufficient to meet other Monitoring Requirements pursuant to RCSA §22a-174-33. [RCSA §22a-174-33(j)(1)(K)(ii)]

c. Record Keeping Requirements

The Permittee shall maintain records sufficient to determine compliance with the limitation or restriction in Section III.D.1.a of this Title V permit. [RCSA §22a-174-33(j)(1)(K)]

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

E. PREMISES-WIDE GENERAL REQUIREMENTS

- 1. Annual Emission Statements:** The Permittee shall submit annual emission statements requested by the commissioner as set forth in RCSA §22a-174-4(d)(1).
- 2. Emission Testing:** The Permittee shall comply with the procedures for sampling, emission testing, sample analysis, and reporting as set forth in RCSA §22a-174-5.
- 3. Emergency Episode Procedures:** The Permittee shall comply with the procedures for emergency episodes as set forth in RCSA §22a-174-6.
- 4. Reporting of Malfunctioning Control Equipment:** The Permittee shall comply with the reporting requirements of malfunctioning control equipment as set forth in RCSA §22a-174-7.
- 5. Prohibition of Air Pollution:** The Permittee shall comply with the requirement to prevent air pollution as set forth in RCSA §22a-174-9.
- 6. Public Availability of Information:** The public availability of information shall apply, as set forth in RCSA §22a-174-10.
- 7. Prohibition Against Concealment/Circumvention:** The Permittee shall comply with the prohibition against concealment or circumvention as set forth in RCSA §22a-174-11.
- 8. Violations and Enforcement:** The Permittee shall not violate or cause the violation of any applicable regulation as set forth in RCSA §22a-174-12.
- 9. Variances:** The Permittee may apply to the commissioner for a variance from one or more of the provisions of these regulations as set forth in RCSA §22a-174-13.
- 10. No Defense to Nuisance Claim:** The Permittee shall comply with the regulations as set forth in RCSA §22a-174-14.
- 11. Severability:** The Permittee shall comply with the severability requirements as set forth in RCSA §22a-174-15.
- 12. Responsibility to Comply:** The Permittee shall be responsible to comply with the applicable regulations as set forth in RCSA §22a-174-16.
- 13. Particulate Emissions:** The Permittee shall comply with the standards for control of particulate matter and visible emissions as set forth in RCSA §22a-174-18.
- 14. Fuel Sulfur Content:** The Permittee shall not use No. 2 heating oil that exceeds fifteen parts per million of sulfur by weight as set forth in CGS §16a-21a(a)(2)(B).
- 16. Sulfur Compound Emissions:** The Permittee shall comply with the requirements for control of sulfur compound emissions as set forth in RCSA §§22a-174-19, 22a-174-19a and 22a-174-19b, as applicable.

Section III: Applicable Requirements and Compliance Demonstration

- 17. Organic Compound Emissions:** The Permittee shall comply with the requirements for control of organic compound emissions as set forth in RCSA §22a-174-20.
- 18. Nitrogen Oxide Emissions:** The Permittee shall comply with the requirements for control of nitrogen oxide emissions as set forth in RCSA §22a-174-22e.
- 19. Ambient Air Quality:** The Permittee shall not cause or contribute to a violation of an ambient air quality standard as set forth in RCSA §22a-174-24(b).
- 20. Open Burning:** The Permittee is prohibited from conducting open burning, except as may be allowed by CGS §22a-174(f).
- 21. Asbestos:** Should the premises, as defined in 40 CFR §61.145, become subject to the national emission standard for asbestos regulations in 40 CFR Part 61 Subpart M when conducting any renovation or demolition at this premises, then the Permittee shall submit proper notification as described in 40 CFR §61.145(b) and shall comply with all other applicable requirements of 40 CFR Part 61 Subpart M.
- 22. Emission Fees:** The Permittee shall pay an emission fee as set forth in RCSA §22a-174-26(d).

Section IV: Compliance Schedule

TABLE IV: COMPLIANCE SCHEDULE				
Emissions Unit	Applicable Regulations	Steps Required for Achieving Compliance (Milestones)	Date by which Each Step is to be Completed	Dates for Monitoring, Record Keeping, and Reporting
		No Steps are required for achieving compliance at this time		

Section V: State Enforceable Terms and Conditions

Only the Commissioner of the Department of Energy and Environmental Protection has the authority to enforce the terms, conditions and limitations contained in this section.

SECTION V: STATE ENFORCEABLE TERMS AND CONDITIONS

- A.** This Title V permit does not relieve the Permittee of the responsibility to conduct, maintain and operate the emissions units in compliance with all applicable requirements of any other Bureau of the Department of Energy and Environmental Protection or any federal, local or other state agency. Nothing in this Title V permit shall relieve the Permittee of other obligations under applicable federal, state and local law.
- B.** Nothing in this Title V permit shall affect the commissioner's authority to institute any proceeding or take any other action to prevent or abate violations of law, prevent or abate pollution, investigate air pollution, recover costs and natural resource damages, and to impose penalties for violations of law, including but not limited to violations of this or any other permit issued to the Permittee by the commissioner.
- C.** Additional Emissions Units
- 1.** The Permittee shall make and submit a written record, at the commissioner's request, within 30 days of receipt of notice from the commissioner, or by such other date specified by the commissioner, of each additional emissions unit or group of similar or identical emissions units at the premises.
 - 2.** Such record of additional emissions units shall include each emissions unit, or group of emissions units, at the premises which is not listed in Section II.A of this Title V permit, unless the emissions unit, or group of emissions units, is:
 - a. an insignificant emissions unit as defined in RCSA §22a-174-33; or
 - b. an emissions unit or activity listed in *White Paper for Streamlined Development of Part 70 Permit Applications, Attachment A* (EPA guidance memorandum dated July 10, 1995).
 - 3.** For each emissions unit, or group of emissions units, on such record, the record shall include, as available:
 - a. Description, including make and model;
 - b. Year of construction/installation or if a group, range of years of construction/installation;
 - c. Maximum throughput or capacity; and
 - d. Fuel type, if applicable.
- D.** Odors: The Permittee shall not cause or permit the emission of any substance or combination of substances which creates or contributes to an odor that constitutes a nuisance beyond the property boundary of the premises as set forth in RCSA §22a-174-23.
- E.** Noise: The Permittee shall operate in compliance with the regulations for the control of noise as set forth in RCSA §§22a-69-1 through 22a-69-7.4, inclusive.
- F.** Hazardous Air Pollutants (HAPs): The Permittee shall operate in compliance with the regulations for the control of HAPs as set forth in RCSA §22a-174-29.

Section VI: Title V Requirements

The Administrator of the United States Environmental Protection Agency and the Commissioner of the Department of Energy and Environmental Protection have the authority to enforce the terms and conditions contained in this section.

SECTION VI: TITLE V REQUIREMENTS

A. SUBMITTALS TO THE COMMISSIONER & ADMINISTRATOR

The date of submission to the commissioner of any document required by this Title V permit shall be the date such document is received by the commissioner. The date of any notice by the commissioner under this Title V permit, including, but not limited to notice of approval or disapproval of any document or other action, shall be the date such notice is delivered or the date three days after it is mailed by the commissioner, whichever is earlier. Except as otherwise specified in this Title V permit, the word "day" means calendar day. Any document or action which is required by this Title V permit to be submitted or performed by a date which falls on a Saturday, Sunday or legal holiday shall be submitted or performed by the next business day thereafter.

Any document required to be submitted to the commissioner under this Title V permit shall, unless otherwise specified in writing by the commissioner, be directed to: Compliance Analysis and Coordination Unit, Bureau of Air Management, Department of Energy and Environmental Protection; 79 Elm Street, 5th Floor; Hartford, Connecticut 06106-5127.

Any submittal to the Administrator of the Environmental Protection Agency shall be submitted per the procedure required by the applicable requirement or otherwise in a computer-readable format and addressed to: : Director, Enforcement and Compliance Assurance Division, U.S. EPA Region I, 5 Post Office Square, Suite 100 (Mailcode: 04-02), Boston, Massachusetts 02109-3912, Attn: Air Compliance Clerk.

B. CERTIFICATIONS [RCSA §22a-174-33(b)]

In accordance with RCSA §22a-174-33(b), any report or other document required by this Title V permit and any other information submitted to the commissioner or Administrator shall be signed by an individual described in RCSA §22a-174-2a(a), or by a duly authorized representative of such individual. Any individual signing any document pursuant to RCSA §22a-174-33(b) shall examine and be familiar with the information submitted in the document and all attachments thereto, and shall make inquiry of those individuals responsible for obtaining the information to determine that the information is true, accurate, and complete, and shall also sign the following certification as provided in RCSA §22a-174-2a(a)(4):

“I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement made in the submitted information may be punishable as a criminal offense under Section 22a-175 of the Connecticut General Statutes, under Section 53a-157b of the Connecticut General Statutes, and in accordance with any applicable statute.”

C. SIGNATORY RESPONSIBILITY [RCSA §22a-174-2a(a)]

For purposes of signing any Title V-related application, document, report or certification required by RCSA §22a-174-33, any corporation's duly authorized representative may be either a named individual or any individual occupying a named position. Such named individual or individual occupying a named position is a duly authorized representative if such individual is responsible for the overall operation of one or more manufacturing, production or operating facilities subject to RCSA §22a-174-33 and either:

Section VI: Title V Requirements

1. The facilities employ more than 250 persons or have gross annual sales or expenditures exceeding 25 million dollars in second quarter 1980 dollars; or
2. The delegation of authority to the duly authorized representative has been given in writing by an officer of the corporation in accordance with corporate procedures and the following:
 - i. Such written authorization specifically authorizes a named individual, or a named position, having responsibility for the overall operation of the Title V premises or activity,
 - ii. Such written authorization is submitted to the commissioner and has been approved by the commissioner in advance of such delegation. Such approval does not constitute approval of corporate procedures, and
 - iii. If a duly authorized representative is a named individual in an authorization submitted under subclause ii. of this subparagraph and a different individual is assigned or has assumed the responsibilities of the duly authorized representative, or, if a duly authorized representative is a named position in an authorization submitted under subclause ii. of this subparagraph and a different named position is assigned or has assumed the duties of the duly authorized representative, a new written authorization shall be submitted to the commissioner prior to or together with the submission of any application, document, report or certification signed by such representative.

D. ADDITIONAL INFORMATION [RCSA §22a-174-33(j)(1)(X), RCSA §22a-174-33(h)(2)]

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier, including information to determine whether cause exists for modifying, revoking, reopening, reissuing, or suspending this Title V permit or to determine compliance with this Title V permit.

In addition, the Permittee shall submit information to address any requirements that become applicable to the subject source and shall submit correct, complete, and sufficient information within 15 days of the applicant's becoming aware of any incorrect, incomplete, or insufficient submittal, during the pendency of the application, or any time thereafter, with an explanation for such deficiency and a certification pursuant to RCSA §22a-174-2a(a)(5).

E. MONITORING REPORTS [RCSA §22a-174-33(o)(1)]

A Permittee, required to perform monitoring pursuant to this Title V permit, shall submit to the commissioner, on forms prescribed by the commissioner, written monitoring reports on March 1 and September 1 of each year or on a more frequent schedule if specified in such permit. Such monitoring reports shall include the date and description of each deviation from a permit requirement including, but not limited to:

1. Each deviation caused by upset or control equipment deficiencies; and
2. Each deviation of a permit requirement that has been monitored by the monitoring systems required under this Title V permit, which has occurred since the date of the last monitoring report; and
3. Each deviation caused by a failure of the monitoring system to provide reliable data.

F. PREMISES RECORDS [RCSA §22a-174-33(o)(2)]

Unless otherwise required by this Title V permit, the Permittee shall make and keep records of all required

Section VI: Title V Requirements

monitoring data and supporting information for at least five years from the date such data and information were obtained. The Permittee shall make such records available for inspection at the site of the subject source, and shall submit such records to the commissioner upon request. The following information, in addition to required monitoring data, shall be recorded for each permitted source:

1. The type of monitoring or records used to obtain such data, including record keeping;
2. The date, place, and time of sampling or measurement;
3. The name of the individual who performed the sampling or the measurement and the name of such individual's employer;
4. The date(s) on which analyses of such samples or measurements were performed;
5. The name and address of the entity that performed the analyses;
6. The analytical techniques or methods used for such analyses;
7. The results of such analyses;
8. The operating conditions at the subject source at the time of such sampling or measurement; and
9. All calibration and maintenance records relating to the instrumentation used in such sampling or measurements, all original strip-chart recordings or computer printouts generated by continuous monitoring instrumentation, and copies of all reports required by the subject permit.

G. PROGRESS REPORTS [RCSA §22a-174-33(q)(1)]

The Permittee shall, on March 1 and September 1 of each year, or on a more frequent schedule if specified in this Title V permit, submit to the commissioner a progress report on forms prescribed by the commissioner, and certified in accordance with RCSA §22a-174-2a(a)(5). Such report shall describe the Permittee's progress in achieving compliance under the compliance plan schedule contained in this Title V permit. Such progress report shall:

1. Identify those obligations under the compliance plan schedule in this Title V permit which the Permittee has met, and the dates on which they were met; and
2. Identify those obligations under the compliance plan schedule in this Title V permit which the Permittee has not timely met, explain why they were not timely met, describe all measures taken or to be taken to meet them and identify the date by which the Permittee expects to meet them.

Any progress report prepared and submitted pursuant to RCSA §22a-174-33(q)(1) shall be simultaneously submitted by the Permittee to the Administrator.

H. COMPLIANCE CERTIFICATIONS [RCSA §22a-174-33(q)(2)]

The Permittee shall, on March 1 of each year, or on a more frequent schedule if specified in this Title V permit, submit to the commissioner a written compliance certification certified in accordance with RCSA §22a-174-2a(a)(5) and which includes the information identified in 40 CFR §§70.6(c)(5)(iii)(A) to (C), inclusive.

Any compliance certification prepared and submitted pursuant to RCSA §22a-174-33(q)(2) shall be

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simultaneously submitted by the Permittee to the Administrator.

I. PERMIT DEVIATION NOTIFICATIONS [RCSA §22a-174-33(p)]

Notwithstanding Section VI.E. of this Title V permit, the Permittee shall notify the commissioner in writing, on forms prescribed by the commissioner, of any deviation from an emissions limitation, and shall identify the cause or likely cause of such deviation, all corrective actions and preventive measures taken with respect thereto, and the dates of such actions and measures as follows:

1. For any hazardous air pollutant, no later than 24 hours after such deviation commenced; and
2. For any other regulated air pollutant, no later than ten days after such deviation commenced.

J. PERMIT RENEWAL [RCSA §22a-174-33(j)(1)(B)]

All of the terms and conditions of this Title V permit shall remain in effect until the renewal permit is issued or denied provided that a timely renewal application is filed in accordance with RCSA §§22a-174-33(g), -33(h), and -33(i).

K. OPERATE IN COMPLIANCE [RCSA §22a-174-33(j)(1)(C)]

The Permittee shall operate the source in compliance with the terms of all applicable regulations, the terms of this Title V permit, and any other applicable provisions of law. In addition, any noncompliance constitutes a violation of the Clean Air Act and Chapter 446c of the Connecticut General Statutes and is grounds for federal and/or state enforcement action, permit termination, revocation and reissuance, or modification, and denial of a permit renewal application.

L. COMPLIANCE WITH PERMIT [RCSA §22a-174-33(j)(1)(G)]

This Title V permit shall not be deemed to:

1. Preclude the creation or use of emission reduction credits or allowances or the trading thereof in accordance with RCSA §§22a-174-33(j)(1)(I) and -33(j)(1)(P), provided that the commissioner's prior written approval of the creation, use, or trading is obtained;
2. Authorize emissions of an air pollutant so as to exceed levels prohibited pursuant to 40 CFR Part 72;
3. Authorize the use of allowances pursuant to 40 CFR Parts 72 through 78, inclusive, as a defense to noncompliance with any other applicable requirement; or
4. Impose limits on emissions from items or activities specified in RCSA §§22a-174-33(g)(3)(A) and -33(g)(3)(B) unless imposition of such limits is required by an applicable requirement.

M. INSPECTION TO DETERMINE COMPLIANCE [RCSA §22a-174-33(j)(1)(M)]

The commissioner may, for the purpose of determining compliance with this Title V permit and other applicable requirements, enter the premises at reasonable times to inspect any facilities, equipment, practices, or operations regulated or required under such permit; to sample or otherwise monitor substances or parameters; and to review and copy relevant records lawfully required to be maintained at such premises in accordance with this Title V permit. It shall be grounds for permit revocation should entry, inspection, sampling, or monitoring be denied or effectively denied, or if access to and the copying of relevant records is denied or effectively denied.

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N. PERMIT AVAILABILITY

The Permittee shall have available at the facility at all times a copy of this Title V permit.

O. SEVERABILITY CLAUSE [RCSA §22a-174-33(j)(1)(R)]

The provisions of this Title V permit are severable. If any provision of this Title V permit or the application of any provision of this Title V permit to any circumstance is held invalid, the remainder of this Title V permit and the application of such provision to other circumstances shall not be affected.

P. NEED TO HALT OR REDUCE ACTIVITY [RCSA §22a-174-33(j)(1)(T)]

It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Title V permit.

Q. PERMIT REQUIREMENTS [RCSA §22a-174-33(j)(1)(V)]

The filing of an application or of a notification of planned changes or anticipated noncompliance does not stay the Permittee's obligation to comply with this Title V permit.

R. PROPERTY RIGHTS [RCSA §22a-174-33(j)(1)(W)]

This Title V permit does not convey any property rights or any exclusive privileges. This Title V permit is subject to, and in no way derogates from any present or future property rights or other rights or powers of the State of Connecticut, and is further subject to any and all public and private rights and to any federal, state or local laws or regulations pertinent to the facility or regulated activity affected thereby, including CGS §4-181a(b) and RCSA §22a-3a-5(b). This Title V permit shall neither create nor affect any rights of persons who are not parties to this Title V permit.

S. ALTERNATIVE OPERATING SCENARIO RECORDS [RCSA §22a-174-33(o)(3)]

The Permittee shall, contemporaneously with making a change authorized by this Title V permit from one alternative operating scenario to another, maintain a record at the premises indicating when changes are made from one operating scenario to another and shall maintain a record of the current alternative operating scenario.

T. OPERATIONAL FLEXIBILITY AND OFF-PERMIT CHANGES [RCSA §22a-174-33(r)(2)]

The Permittee may engage in any action allowed by the Administrator in accordance with 40 CFR §§70.4(b)(12)(i) to (iii)(B), inclusive, and 40 CFR §§70.4(b)(14)(i) to (iv), inclusive, without a Title V non-minor permit modification, minor permit modification or revision and without requesting a Title V non-minor permit modification, minor permit modification or revision provided such action does not:

1. Constitute a modification under 40 CFR Part 60, 61 or 63;
2. Exceed emissions allowable under the subject permit;
3. Constitute an action which would subject the Permittee to any standard or other requirement pursuant to 40 CFR Parts 72 to 78, inclusive; or
4. Constitute a non-minor permit modification pursuant to RCSA §22a-174-2a(d)(4).

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At least seven days before initiating an action specified in RCSA §22a-174-33(r)(2)(A), the Permittee shall notify the Administrator and the commissioner in writing of such intended action.

U. INFORMATION FOR NOTIFICATION [RCSA §22a-174-33(r)(2)(A)]

Written notification required under RCSA §22a-174-33(r)(2)(A) shall include a description of each change to be made, the date on which such change will occur, any change in emissions that may occur as a result of such change, any Title V permit terms and conditions that may be affected by such change, and any applicable requirement that would apply as a result of such change. The Permittee shall thereafter maintain a copy of such notice with the Title V permit. The commissioner and the Permittee shall each attach a copy of such notice to their copy of the Title V permit.

V. TRANSFERS [RCSA §22a-174-2a(g)]

No person other than the Permittee shall act or refrain from acting under the authority of this Title V permit unless such permit has been transferred to another person in accordance with RCSA §22a-174-2a(g).

The proposed transferor and transferee of a permit shall submit to the commissioner a request for a permit transfer on a form provided by the commissioner. A request for a permit transfer shall be accompanied by any fees required by any applicable provision of the general statutes or regulations adopted thereunder. The commissioner may also require the proposed transferee to submit with any such request, the information identified in CGS §22a-6o.

W. REVOCATION [RCSA §22a-174-2a(h)]

The commissioner may revoke this Title V permit on his own initiative or on the request of the Permittee or any other person, in accordance with CGS §4-182(c), RCSA §22a-3a-5(d), and any other applicable law. Any such request shall be in writing and contain facts and reasons supporting the request. The Permittee requesting revocation of this Title V permit shall state the requested date of revocation and provide evidence satisfactory to the commissioner that the subject source is no longer a Title V source.

Pursuant to the Clean Air Act, the Administrator has the power to revoke this Title V permit. Pursuant to the Clean Air Act, the Administrator also has the power to reissue this Title V permit if the Administrator has determined that the commissioner failed to act in a timely manner on a permit renewal application.

This Title V permit may be modified, revoked, reopened, reissued, or suspended by the commissioner, or the Administrator in accordance with RCSA §22a-174-33(r), CGS §22a-174c, or RCSA §22a-3a-5(d).

X. REOPENING FOR CAUSE [RCSA §22a-174-33(s)]

This Title V permit may be reopened by the commissioner, or the Administrator in accordance with RCSA §22a-174-33(s).

Y. CREDIBLE EVIDENCE

Notwithstanding any other provision of this Title V permit, for the purpose of determining compliance or establishing whether a Permittee has violated or is in violation of any permit condition, nothing in this Title V permit shall preclude the use, including the exclusive use, of any credible evidence or information.