

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	026-0114-TV
Client/Sequence/Town/Premises Numbers	0507/001/026/0019
Date Issued	August 13, 2018
Expiration Date	August 13, 2023

Corporation:

Firestone Building Products Company, LLC

Premises Location:

780 James P. Casey Road, Bristol, CT 06010

Name of Responsible Official and Title:

Clint Baty, Plant Manager

All the following attached pages, 2 through 25, are hereby incorporated by reference into this Title V permit.

/s/Robert E. Kaliszewski
Robert E. Kaliszewski
Deputy Commissioner

August 13, 2018
Date

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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>
CAM	Compliance Assurance Monitoring
CFR	Code of Federal Regulations
CGS	Connecticut General Statutes
CO	Carbon Monoxide
DE	Destruction Efficiency
EU	Emissions Unit
EPA	Environmental Protection Agency
⁰ F	Degrees Fahrenheit
ft ³	Cubic Feet
HAP	Hazardous Air Pollutant
HC	Hydrocarbon
HEPA	High Efficiency Particulate Air
hr	Hour
lb	Pound
MASC	Maximum Allowable Stack Concentration
MDI	Methylene Di-p-phenylene Isocyanate
MMBtu	Million British Thermal Units
MSDS	Material Safety Data Sheet
NO _x	Nitrogen Oxides
NSR	New Source Review
PM	Particulate Matter
PM ₁₀	Particulate Matter less than 10 microns
PM _{2.5}	Particulate Matter less than 2.5 microns
RCSA	Regulations of Connecticut State Agencies
RTO	Regenerative Thermal Oxidizer
SIC	Standard Industrial Classification Code
SO ₂	Sulfur Dioxide
SOCMI	Synthetic Organic Chemical Manufacturing Industry
SOS	Standard Operating Scenario
tpy	Tons per year
VOC	Volatile Organic Compound

Section I: Premises Information/Description

A. PREMISES INFORMATION

Nature of Business: Plastics Foam Products
Primary SIC: 3086
Other SIC: None

Facility Mailing Address: 780 James P. Casey Road, Bristol, CT 06010
Telephone Number: 860-584-9000

B. PREMISES DESCRIPTION

Firestone Building Products Company operates a foam insulation board manufacturing line in Bristol, CT (EU-1). The process operates under New Source Review Permit Number 026-0045. The permit was modified on February 22, 2017 and VOC emissions were increased from 47.33 to 68.6 tpy triggering Title V applicability. The permit was modified again on February 2, 2018.

The foam insulation board manufacturing line consists of storage tanks for blowing agents and reactant chemicals, various process vessels, a heated conveyor (laminator), conveyors and trim and crosscut saws. VOC emissions from manufacturing are controlled by a regenerative thermal oxidizer (RTO) and a zeolite rotary concentrator. VOC emissions during warehouse storage of the insulation board are uncontrolled. Particulate emissions from saw cutting of the insulation board are controlled by a dust collector/baghouse.

The process consists of the following: Side A (Methylene Di-p-phenylene Isocyanate (MDI) and Side B (blowing agent formulation, polyester polyol, flame retardant, surfactant and amine catalysts) (see Figure 1) chemicals are combined just before the exit from the laydown nozzle. Multiple streams of the mixture are deposited on the bottom paper backing located on a conveyor. The bottom paper backing is conveyed into the laminator along with the top paper backing. The paper backing is also referred to as “facer”. The foam expands to fill the space between the paper backings to form a continuous length panel. The thickness of the foam insulation board varies depending on the line speed and laminator settings. Sidewalls along the conveyors force the expanding foam to conform to the width of the paper backing. The continuous sheet is cured in the heated section of the laminator, and then the sides are cut by the edge trim saws and crosscut into 16-foot sections and transferred to a gang saw where they are cut into either 4 or 8 foot segments. The cut boards travel on a conveyor to a station where they are stacked and shrink wrapped. The wrapped boards are then stacked and stored in the finished goods warehouse area pending shipment.

At times, the facility will experiment with alternative chemicals that make up Side A and Side B formulations for product development and improvement. Trial chemicals will be tracked in accordance with corresponding permit conditions.

The chemicals that make up Side A and Side B formulations are contained in process and storage tanks, all of which are subject to change due to the ongoing product development and improvement.

Foam Insulation Board Manufacturing Line (EU-1)

The process is not subject to any New Source Performance Standards. The VOC emissions from the laminator are ducted directly to the RTO. VOC and particulate emissions from the board sawing are ducted first to a dust collector/fabric filter (baghouse) and then to a HEPA filter for final polishing of the gas stream before being ducted to the zeolite rotary concentrator (concentrator) and then ducted directly to the RTO. The zeolite rotary concentrator clean side exhausts indoors to the building truck loading bay.

Section I: Premises Information/Description

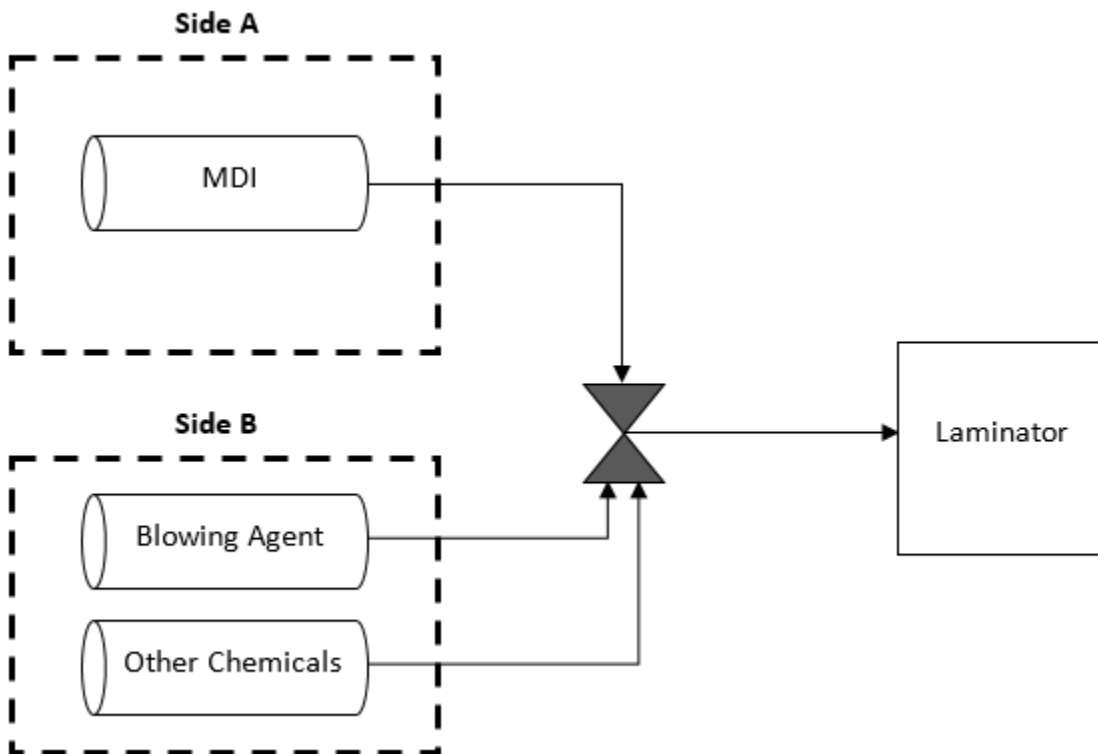
RTO and Concentrator

The RTO and zeolite rotary concentrator are operated simultaneously and are integral to the control of VOC emissions during the production of the foam insulation board. The combined destruction efficiency of the RTO/Rotary Concentrator is 90%, which is verified on a recurring three year basis. This source is subject to 40 CFR Part 64 Compliance Assurance Monitoring (CAM) requirements for VOC emissions.

Baghouse

Particulate emissions created during the sawing operation are ducted to the dust collector/fabric filter (baghouse). The dust collection system is operated at all times when the laminator is in operation. All clean side exhaust is emitted inside the building and therefore the particulate emissions from this unit are considered fugitive and not subject to 40 CFR Part 64 CAM requirements.

Figure 1



Firestone Building Products, LLC exceeds the major source threshold for the following pollutant: VOC

Firestone Building Products, 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 Information

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	Emissions Unit Description	Control Unit Description	Permit or Regulation Number
EU-1	Foam Insulation Board Manufacturing Line	RTO/Rotary Concentrator PM/PM ₁₀ : Baghouse	P026-0045 RCSA §22a-174-20(f)(4) 40 CFR Part 64 RCSA §22a-174-18(f)(3)

B. OPERATING SCENARIO IDENTIFICATION

The Permittee shall be allowed to operate under the following Standard Operating Scenario (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	
Emissions Units Associated with the Scenario	Description of Scenario
EU-1	SOS shall be EU-1 operated in accordance with applicable permit terms and conditions and best management practices for foam insulation board manufacturing.

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. EMISSIONS UNIT 1 (EU-1): Foam Insulation Board Manufacturing Line:

Subject to: Permit No. 026-0045, RCSA §§22a-174-20(f)(4) and 22a-174-18(f)(3), 40 CFR Part 64

1. Operational Conditions

a. *Limitation or Restriction* [P026-0045]

i. Foam Board Chemical Usage

(A) Side A:

Less than or equal to 9,045 lb/hr

(B) Side B:

Less than or equal to 6,625 lb/hr

(C) Total Side A & B:

Less than or equal to 15,670 lb/hr

ii. Maximum Annual Foam Board Chemicals Used, does not include face weight

Less than or equal to 25,900 tons/consecutive 12 months

iii. Blowing Agent formulation shall not exceed:

(A) 1,254 lb/hr; and

(B) 8% of total foam board chemicals used

(C) Pentane, acetone or other chemicals may be used in the blowing agent formulation. The emissions from any new compounds, for production or trial runs, shall be counted toward any applicable emissions limit found in Section III.2.a. of this Title V permit.

b. *Monitoring Requirements* [P026-0045]

i. The Permittee shall monitor the hourly material usage for Side A, Side B and blowing agent formulation.

ii. The Permittee shall monitor the monthly chemicals used in foam board production.

c. *Record Keeping Requirements*

i. The Permittee shall keep a record of the following:

(A) Board thickness in inches;

[P026-0045]

(B) Total weight in tons for all chemicals used in foam board production during each calendar month. Such records shall show the dates and time for each period of operation of the laminator;

[P026-0045]

(C) Total weight of each board thickness produced; [P026-0045] and

(D) Hourly material usage for Side A, Side B and blowing agent formulation.

[RCSA §22a-174-33(j)(1)(K)]

Section III: Applicable Requirements and Compliance Demonstration

- ii. The Permittee shall keep a record of the hourly, monthly and consecutive 12 month usage and composition of blowing agent formulation, Side A formulation, Side B formulation, and total chemicals used in foam board production, in pounds. The consecutive 12 month material usage shall be determined by adding the current month's usage to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the previous month.
- iii. The Permittee shall keep records of the percentage of blowing agent formulation to total foam board chemicals used for each production run of foam board.
- iv. The Permittee shall calculate and record the monthly weighted average board thickness of all foam board produced during the month in inches and the Monthly Blowing Agent release factor in lb/100 lb of chemicals used. The Permittee shall make these calculations with 30 days of the previous month.
- v. The Permittee shall keep records of the manufacturer's operation and maintenance requirements for each piece of equipment associated with this process.
- vi. The Permittee shall keep material safety data sheets (MSDS) or technical data sheets (TDS) or safety data sheets (SDS) for each chemical used. Such information shall include the quantity and type of each hazardous air pollutant contained in the chemicals used. For paperwork reduction, these sheets may be kept on computer file in electronic form, access to above paperwork requirement may also be allowed via internet on-demand.

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. VOC Emissions from Foam Board

a. Limitation or Restriction [P026-0045]

- i. Manufacturing Losses (through RTO/Rotary Concentrator)
 - (A) Less than or equal to 6.0 lb/hr
 - (B) Less than or equal to 9.5 tpy
- ii. Fugitive Losses from Warehouse
Less than or equal to 59.1 tpy
- iii. Total VOC Emissions
Less than or equal to 68.9 tpy

b. Monitoring Requirements

Record keeping specified in Section III.A.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 [P026-0045]

- i. The Permittee shall calculate and record the monthly and consecutive 12-month emissions of VOC and non-VOC regulated air pollutants in tons from each of the following operations:
 - (A) the laminator (sides A and B); and
 - (B) the warehouse

Section III: Applicable Requirements and Compliance Demonstration

- ii. The consecutive 12-month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Calculations shall be made in accordance with Section III.2.iii. of this Title V permit.
- iii. The Permittee shall calculate VOC emissions from the following:
 - (A) MDI manufacturing losses
 - (1) Manufacturing Loss (tons/month) = $[W \times [1 - \text{RTO/Concentrator Combined Destruction Efficiency}]] / [453.6 \text{ g/lb}] / [2000 \text{ lb/ton}]$
 - (a) Where, W = Evaporation loss from the process as calculated according to "MDI/Polymeric MDI Emissions Reporting Guidelines for the Polyurethane Industry", Alliance for the Polyurethane Industries, 2004.
 - (b) Where, RTO/Concentrator Combined Destruction Efficiency (DE) is as determined by most recent stack test data at the FBPC Bristol, CT facility and calculated in Section III.4.a. of this Title V permit.
 - (B) Total Manufacturing and Sawcutting VOC Loss (including emissions from the manufacturing process, baghouse and concentrator)
 - (1) Total Manufacturing VOC Loss (lb/hr) = $[\text{Total VOC emissions to RTO/Concentrator}] \times [1 - \text{RTO/Concentrator DE}]$
 - (a) Where, VOC emission rates are as determined by the most recent stack test data at the FPBC Bristol, CT facility. The VOC emission rate shall be adjusted by the actual VOC fraction of the blowing agent (i.e. lb VOC/lb blowing agent)
 - (b) Where, RTO/Concentrator Combined Destruction Efficiency (DE) as determined by most recent stack test data at the FBPC Bristol, CT facility.
 - (C) Fugitive Warehouse VOC losses
 - (1) VOC Emitted from the Warehouse = $[\text{Monthly Average Blowing Agent Release Factor (lb blowing agent/100 lb foam board chemicals used)}] \times [\text{VOC content of blowing agent (lb VOC/lb blowing agent)}] \times [\text{total chemicals used (lb)}] / 100$
 - (a) Where, the blowing agent release factor equals:
 - (1) 0.2075 lb blowing agent/100 lb foam board chemicals used if the Monthly Weighted Average Board thickness is less than 2", or
 - (2) The result of linear interpolation based on the Monthly Weighted Average Board Thickness, and;
 - (i) 0.02075 lb/100 lb of foam board chemicals used in the production of 2" board produced
 - (ii) 0.2956 lb/100 lb of foam board chemicals used in the production of 3" board produced
 - (2) Fugitive VOC emissions from leaks in transfer lines and process piping: "Fugitive VOC Emissions in the Synthetic Organic Chemical Manufacturing Industry (SOCMI)" (EPA-625/10-8A-004), 12/84
 - (D) Sample calculations for each of the above parameters shall be kept on-site and shall be provided to the commissioner on request.

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30

Section III: Applicable Requirements and Compliance Demonstration

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)]

3. HAP Emissions

a. Limitation or Restriction [P026-0045]

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]

b. Monitoring Requirements

Record keeping specified in Section III.A.3.c. of this Title V permit shall be sufficient to meet other Monitoring Requirements pursuant to RCSA §22a-174-33.

[RSCA §22a-174-33(j)(1)(K)(ii)]

c. Record Keeping Requirements [P026-0045]

The Permittee shall keep records of the Maximum Allowable Stack Concentration (MASC) for any hazardous air pollutant (HAP) emitted from EU-1 including emissions from trial runs using stack parameters from the latest stack test data.

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)]

4. Stack Emission Test Requirements

a. Limitation or Restriction [P026-0045]

i. Recurring stack testing is required for the following within three years of the previous test:

(A) VOC/HC

(B) Destruction Efficiency (DE)

(1) RTO/Concentrator Combined DE = $\frac{(A+B) - (C+D)}{(A+B)}$ s 100%

(2) RTO Destruction Efficiency = $1 - [C/(A+B-D)] \times 100\%$

Where,

(a) A = emissions rate measured between the laminator and RTO

(b) B = emissions rate measured between the saw cutting and concentrator

(c) C = emissions rate measured at outlet of RTO

(d) D = emissions rate measured at outlet of concentrator

b. Monitoring Requirements

Record keeping specified in Section III.A.4.c. of this Title V permit shall be sufficient to meet other Monitoring Requirements pursuant to RCSA §22a-174-33.

[RSCA §22a-174-33(j)(1)(K)(ii)]

Section III: Applicable Requirements and Compliance Demonstration

c. Record Keeping Requirements [P026-0045]

The Permittee shall keep records of all performance tests.

d. Reporting Requirements [P026-0045]

The Permittee shall submit test results within 60 days after completion of testing.

5. Lachenmeir Shrink Wrap

a. Limitation or Restriction [P026-0045]

i. Fuel Type: Natural Gas

ii. The Permittee shall perform maintenance and inspections on the Lachenmeir shrink wrapper as recommended by the manufacturer.

b. Monitoring Requirements

Record keeping specified in Section III.A.5.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 [P026-0045]

The Permittee shall record all maintenance and inspections on the Lachenmeir. Such records shall contain the date of any maintenance or inspection and any action taken by the Permittee.

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. RTO/Rotary Concentrator

a. Limitation or Restriction [P026-0045]

i. Allowable Fuel: Natural Gas

(A) Maximum Firing Rate: 2000 ft³/hr (2 MMBtu/hr)

ii. Minimum RTO Combustion Temperature (°F): 1,400

iii. Minimum RTO Combustion Chamber Retention Time: 1 second

iv. Minimum RTO Destruction Efficiency: 95%

v. Minimum RTO/Concentrator Combined Destruction Efficiency: 90%

vi. If the thermocouple does not agree to within one percent of the reference, the thermocouple shall be replaced.

vii. Rotary Concentrator Desorption Flow Temperature Range (°F): 300-410

viii. The Permittee shall perform maintenance and inspection on the RTO and rotary concentrator as recommended by their respective manufacturers. On a quarterly basis, the Permittee shall inspect the total enclosure for the laminator, the duct work for the RTO and rotary concentrator for leaks.

ix. The Permittee shall properly operate the control equipment at all times that EU-1 is in operation and emitting air pollutants.

x. The Permittee shall operate and maintain this equipment in accordance with the manufacturer's specifications and written recommendations.

Section III: Applicable Requirements and Compliance Demonstration

xi. Natural Gas Combustion Emissions from the RTO (tpy)

- (A) PM: 0.07
- (B) PM₁₀: 0.07
- (C) PM_{2.5}: 0.07
- (D) SO₂: 0.005
- (E) NO_x: 0.88
- (F) VOC: 0.05
- (G) CO: 0.74

b. *Monitoring Requirements* [P026-0045]

- i. The Permittee shall operate a continuous monitoring and record keeping system which continuously measures and continuously records the RTO's combustion temperature.
- ii. The Permittee shall calibrate or replace the thermocouple annually.
- iii. The Permittee shall monitor the natural gas usage of the RTO using either fuel purchase receipts or a non-resettable totalizing fuel meter.
- iv. The Permittee shall continuously monitor the flow rate from the laminator to the RTO.
- v. The Permittee shall continuously monitor the desorption temperatures of the rotary concentrator using a computer display.

c. *Record Keeping Requirements* [P026-0045]

- i. The Permittee shall calculate and record the monthly and consecutive 12 month PM, PM₁₀, PM_{2.5}, SO₂, NO_x, VOC, and CO emissions in units of tons for the RTO. 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. 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.
 - (A) Demonstration of compliance with the Combustion Emissions from the RTO may be met by calculating the emission rates using from the following sources:
 - (1) Compilation of Air Pollutant Emission Factors (AP-42), 5th Edition, Section 1.4, Tables 1.4-1 & 2 Small boilers less than 100 MMBtu/hr, 7/98
- ii. The Permittee shall keep records of the annual natural gas use for the RTO.
- iii. The Permittee shall continuously record the RTO combustion temperature.
- iv. The Permittee shall continuously record the flow rate from the laminator to the RTO.
- v. The Permittee shall keep records of the required quarterly leak inspection. These records shall include any identified leaks and the any corrective actions taken.
- vi. The Permittee shall keep records of the manufacturer's operation and maintenance requirements for each piece of equipment associated with this process.
- vii. The Permittee shall keep calibration and maintenance records and electronic recordings for all continuous monitoring instruments and equipment.
- viii. The Permittee shall record all maintenance and inspections conducted on the laminator total enclosure and duct work to the rotary concentrator/RTO control system. Such records shall contain the date of any maintenance or inspection and any action taken by the Permittee.

Section III: Applicable Requirements and Compliance Demonstration

- ix. The Permittee shall keep detailed operation and maintenance records for the RTO, including the time of operation, the date removed from service, the cause for the removal from service, the date and description of each service performed, and the date put back into service.
- x. The Permittee shall keep detailed records of each RTO thermocouple calibration or replacement, including the date each RTO thermocouple calibration or replacement was performed and the name of the person conducting that task.
- xi. The Permittee shall continuously record the desorption temperature of the rotary concentrator.

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)]

7. Compliance Assurance Monitoring (CAM) Plan

See Section IV of this Title V permit.

8. Baghouse and HEPA Filter

a. Limitation or Restriction [P026-0045]

- i. Expected PM₁₀ Collection Efficiency: 99.5%
- ii. HEPA filter Removal Efficiency: 99.99%
- iii. The Permittee shall properly operate the control equipment at all times that EU-1 is in operation and emitting air pollutants.

b. Monitoring Requirements [P026-0045]

- i. The Permittee shall continuously monitor the pressure drop across the baghouse filter using a manual gauge.
- ii. The Permittee shall perform inspections of the dust collector as recommended by the manufacturer.

c. Record Keeping Requirements [P026-0045]

- i. The Permittee shall record the pressure drop across the baghouse at least once per shift.
- ii. The Permittee shall record all maintenance conducted on the baghouse filter and a description of the condition of the filters upon replacement.
- iii. The Permittee shall keep records of the manufacturer's operation and maintenance requirements for the control equipment.

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)]

B. 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. **Emergency Episode Procedures:** The Permittee shall comply with the procedures for emergency episodes as set forth in RCSA §22a-174-6.

Section III: Applicable Requirements and Compliance Demonstration

3. **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.
4. **Prohibition of Air Pollution:** The Permittee shall comply with the requirement to prevent air pollution as set forth in RCSA §22a-174-9.
5. **Public Availability of Information:** The public availability of information shall apply, as set forth in RCSA §22a-174-10.
6. **Prohibition Against Concealment/Circumvention:** The Permittee shall comply with the prohibition against concealment or circumvention as set forth in RCSA §22a-174-11.
7. **Violations and Enforcement:** The Permittee shall not violate or cause the violation of any applicable regulation as set forth in RCSA §22a-174-12.
8. **Variations:** 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.
9. **No Defense to Nuisance Claim:** The Permittee shall comply with the regulations as set forth in RCSA §22a-174-14.
10. **Severability:** The Permittee shall comply with the severability requirements as set forth in RCSA §22a-174-15.
11. **Responsibility to Comply:** The Permittee shall be responsible to comply with the applicable regulations as set forth in RCSA §22a-174-16.
12. **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.
13. **Fuel Sulfur Content:**
 - a. For the period beginning July 1, 2014 and ending June 30, 2018, the Permittee shall not use No. 2 heating oil that exceeds five hundred parts per million of sulfur by weight as set forth in CGS §16a-21a(a)(2)(A); and
 - b. On or after July 1, 2018, 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) .
14. **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.
15. **Organic Compound Emissions:** The Permittee shall comply with the requirements for control of organic compound emissions as set forth in RCSA §22a-174-20.
16. **Nitrogen Oxide Emissions:** The Permittee shall comply with the requirements for control of nitrogen oxide emissions as set forth in RCSA §22a-174-22f.
17. **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).

Section III: Applicable Requirements and Compliance Demonstration

- 18. Open Burning:** The Permittee is prohibited from conducting open burning, except as may be allowed by CGS §22a-174(f).
- 19. 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.
- 20. 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	Interim Monitoring, Record Keeping, and Reporting
EU-1	40 CFR Part 64	<ol style="list-style-type: none"> <li style="margin-bottom: 10px;">1. Pursuant to 40 CFR §64.4(e), the Permittee shall conduct sufficient multi-point load stack testing to develop appropriate indicator ranges for RTO Combustion Temperature and Rotary Concentrator Desorption Temperatures, minimum pressure drop across the baghouse filter, and/or other appropriate indicators as determined during testing for VOC compliance. <li style="margin-bottom: 10px;">2. The Permittee shall comply with the requirements found in 40 CFR §§64.6(e)(1) – (3) during the interim period of the monitoring plan approval. 3. Pursuant to RCSA §22a-174-2a(d)(4)(D), the Permittee shall submit a non-minor modification application to incorporate monitoring that complies with the requirements found in 40 CFR §§60.3 and 60.4. 	<p style="margin: 0;">180 days after the issuance of this Title V permit. (Application No. 201711102)</p>	<p style="margin: 0;">The Permittee shall comply with the applicable monitoring, record keeping, and reporting requirements found in Permit No. 026-0045.</p>

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: Office of the Director; Engineering & Enforcement Division; 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 in a computer-readable format and addressed to: U.S. EPA New England, 5 Post Office Square, Suite 100 (OES04-2), Boston, Massachusetts 02109, Attn: Air 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.

Section VI: Title V Requirements

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 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.

Section VI: Title V Requirements

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 simultaneously submitted by the Permittee to the Administrator.

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

Notwithstanding Section VI.D 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.

Section VI: Title V Requirements

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.

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.

Section VI: Title V Requirements

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).

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-6m.

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.

Section VI: Title V Requirements

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.