State of New Hampshire
Department of Environmental Services
Air Resources Division

Temporary Permit

Permit No: TP-0256
Date Issued: February 11, 2020

This certifies that:

Saint-Gobain Performance Plastics Corporation
701 Daniel Webster Highway
Merrimack, NH 03054

has been granted a Temporary Permit for a:

Coated Fabrics and Films Manufacturing Operations and Two Emergency Engines

at the following facility and location:

Saint-Gobain Performance Plastics Corporation
701 Daniel Webster Highway
Merrimack, NH 03054

Facility ID No: **3301100165**
Application No: **18-0227**, received March 26, 2019

which includes devices that emit air pollutants into the ambient air as set forth in the permit application referenced above, which was filed with the New Hampshire Department of Environmental Services, Air Resources Division (department) in accordance with RSA 125-C of the New Hampshire Laws. Request for permit renewal must be received by the department at least 90 days prior to expiration of this permit and must be accompanied by the appropriate permit application forms.

This permit is valid upon issuance and expires on **August 31, 2021**.

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Director
Air Resources Division

Abbreviations and Acronyms

AAL	Ambient Air Limit
AGQS	Ambient Groundwater Quality Standard
ASTM	American Society of Testing and Materials
BACT	Best Available Control Technology
Btu	British thermal units
CAS	Chemical Abstracts Service
CFR	Code of Federal Regulations
CO	Carbon Monoxide
Env-A	New Hampshire Code of Administrative Rules – Air Related Programs
ft	foot or feet
ft^3	cubic feet
gal	gallon
HAP	Hazardous Air Pollutants (as defined in Section 112 of the 1990 Clean Air Act Amendments)
HF	Hydrogen Fluoride (as F)
hp	horsepower
hr	hour
kW	kilowatt
lb	pound
MM	million
MSDS	Material Safety Data Sheet
NAAQS	National Ambient Air Quality Standard
NG	Natural Gas
NHDES	New Hampshire Department of Environmental Services (department)
NOx	Oxides of Nitrogen
NSPS	New Source Performance Standard
PFAS	Per- and Polyfluorinated Substances
PFCs	Perfluorinated Compounds
PM_{10}	Particulate Matter < 10 microns
ppt	parts per trillion
ppm	parts per million
PTFE	Polytetrafluoroethylene
RACT	Reasonably Available Control Technology
RSA	Revised Statutes Annotated
RTAP	Regulated Toxic Air Pollutant
RTO	Regenerative Thermal Oxidizer
scf	standard cubic foot
SDS	Safety Data Sheet
SO_2	Sulfur Dioxide
SWQS	Surface Water Quality Standard
TSP	Total Suspended Particulate
TPE	Theoretical Potential Emissions
tpy	tons per consecutive 12-month period
USEPA	United States Environmental Protection Agency
VOCs	Volatile Organic Compounds

I. Facility Description

Saint-Gobain Performance Plastics Corporation (SGPP), 701 Daniel Webster Highway in Merrimack, NH primarily manufactures PTFE coated fabrics and PTFE films. The fabrics are manufactured for a variety of chemical and weather resistant applications. This permit covers 10 coating towers, 2 film lines, an R&D coater and 4 additional ancillary devices that will be tied into the proposed regenerative thermal oxidizer. Pursuant to RSA 125-C:10-e, NHDES determined that devices operated at SGPP have emitted and continue to emit to the air PFCs and precursors. The emission of these PFCs have caused and continue to contribute to an exceedance of AGQS as a result of deposition of the PFCs and precursors from the air. Therefore, the devices located at SGPP are subject to the application of BACT as defined in RSA 125-C:10-b, I(a).

The permit also covers an antenna cover fabrication area, a fire pump, and an emergency generator. The antenna cover fabrication area is part of the finishing operations which includes manual application of adhesives to the fabric for bonding to other pieces of fabric, ancillary items or to metal frames. The Facility is a synthetic minor source of air pollution for VOCs and HAPs. The Facility does not have the potential to emit the criteria pollutants SO_2, NOx, CO, and PM_{10} at levels greater than the major source thresholds for these pollutants. Therefore, the Facility is a true minor source for SO_2, NOx, CO, and PM_{10}.

This Temporary Permit, TP-0256, includes new conditions associated with the project as well as existing conditions from the State Permit to Operate SP-0072. Upon issuance of this Temporary Permit, SP-0072 is terminated.

II. Emission Unit Identification

This permit covers the devices identified in Tables 1 and 2:

Table 1 - Emission Unit Identification

Emission Unit ID	Device Name	Installation Date	Process Parameters		
			Maximum Product Width (in)	# of Stages	Maximum Production (sq. ft/hr)
EU01	MA Tower	1994	60	1	6,000
EU02	MB Tower	1998	175	1	17,500
EU03	MC Tower	1998	92	1	9,200
EU04	MR Tower	2002	92	1	9,200
EU05	MD Tower	1999	92	2	9,200
EU06	QX Tower	1989	60	5	6,000
EU07	20” SBC	1986	20	6	500
EU08	20” Coater	1986	20	1	500
EU12	MG Tower	2002	175	1	4,375
EU13	MP Tower	2002	175	1	4,375
EU15	MQ Tower	2002	44	1	1,100
EU16	MS Tower	2002	92	1	2,300
EU17	Antenna Cover Fabrication Area	1993	N/A	N/A	N/A
EU22	R & D Coater	N/A	26	1	2,600

Table 1 - Emission Unit Identification					
Emission Unit ID	Device Name	Installation Date	Process Parameters		
			Maximum Product Width (in)	# of Stages	Maximum Production (sq. ft/hr)
EU23	Chemsil Coater	N/A	38	1	3,800
EU24	MTM	N/A	50	1	5,000
EU25	Step Press/ Laminator	N/A	48	1	4,800
EU26	Heat Clean	N/A	N/A	1	N/A

Table 2 – Emission Unit Identification: Additional Fuel Burning Equipment			
Emission Unit ID	Emission Unit Description	Installation Date	Maximum Design Capacity & Permitted Fuel Types[1]
EU20	Clarke fire pump - Model JU4H-UFAD58 John Deere engine - Model 4045 Serial #PE4045L273937	2015	1.20 MMBtu/hr (110 bhp; 82 kW) ULSD – equivalent to 8.7 gal/hr
EU21	Kohler emergency generator set - Model 40REOZJC John Deere engine - Model 4024HF285B Serial #SGM32DG5J	2015	0.47 MMBtu/hr (80 bhp; 60 kW) ULSD – equivalent to 3.4 gal/hr

III. Pollution Control Equipment Identification

Pursuant to RSA 125-C:10-e, *Requirements for Air Emissions of Perfluorinated Compounds Impacting Soil and Water*, within 12 months of permit issuance, the applicant shall complete construction and installation of controls listed in Table 3. Operation of the source may continue through the construction and installation time period. After the final construction and installation date, the air pollution control equipment listed in Table 3 shall be operated at all times that the associated devices are operating in order to meet permit conditions.

Table 3 - Pollution Control Equipment Identification			
Pollution Control Equipment ID	Description	Purpose	Emission Units Controlled
PCE01	Regenerative Thermal Oxidizer as described in Table 5, Item 5.	Control of PFCs and precursors Control of VOCs	EU01-EU08, EU12, EU13, EU15, EU16 and EU22-EU26

[1] The hourly fuel rates presented in Table 2 are set assuming a heating value of 137,000 Btu/gal for ultra-low sulfur diesel (ULSD). The fuel consumption and maximum power ratings for each engine come from their respective engine specification sheets which also state that both engines are US EPA Tier 3 certified.

IV. Stack Criteria

The following devices at the Facility shall have exhaust stacks that meet the criteria in Table 4:

Table 4 - Stack Criteria

Stack Number	Emission Unit or Pollution Control Equipment ID	Stack Configuration	Minimum Height (feet above ground surface)	Maximum Exit Diameter (feet)
1	PCE01	Vertical	60	6
2	EU17	Horizontal – 3 identical exhaust points	2	6.25 ft^2 (30"x30")

V. Operating and Emission Limitations

The owner or operator shall be subject to the operating and emission limitations identified in Table 5:

Table 5 - Operating and Emission Limitations

Item #	Requirement	Applicable Emission Unit	Regulatory Basis
1.	*Facility-Wide Emission Limitations*[2] a.) Facility-wide emissions of VOCs shall be limited to less than 50 tpy; and b.) Facility-wide emissions of HAPs shall be limited to less than 10 tpy for any individual HAP and 25 tpy for all HAPs combined.	Facility Wide	Env-A 604.02(a)(1)
2.	*24-hour and Annual Ambient Air Limit* The emissions of any RTAP shall not cause an exceedance of its associated 24-hour or annual AAL as set forth in Env-A 1450.01, *Table of All Regulated Toxic Air Pollutants*.	Facility Wide	Env-A 1400 (State-only Enforceable Limit)
3.	*Revisions of the List of RTAPs* In accordance with RSA 125-I:5 IV, if the department revises the list of RTAPs or their respective AALs or classifications under RSA 125-I:4, II and III, and as a result of such revision the owner or operator is required to obtain or modify the permit under the provisions of RSA 125-I or RSA 125-C, the owner or operator shall have 90 days following publication of notice of such final revision in the New Hampshire Rulemaking Register to file a complete application for such permit or permit modification.	Facility Wide	Env-A 1404.02 (State-only Enforceable Limit)

[2] The Facility has the potential to emit VOCs at levels greater than the major source threshold for these pollutants of 50 tpy and HAPs at levels greater than the major source threshold of 10 tpy for any individual HAP and 25 tpy for all HAPs combined. The annual emission limits in Table 5, Item 1 are less than these thresholds and establish the Facility as a synthetic minor source of air pollution for VOCs and HAPs. The Facility does not have the potential to emit the criteria pollutants NOx, SO_2, CO and PM_{10} at levels greater than the major source thresholds for these pollutants. Therefore, the Facility is a true minor source for NOx, SO_2, CO, and PM_{10}.

Table 5 - Operating and Emission Limitations			
Item #	**Requirement**	**Applicable Emission Unit**	**Regulatory Basis**
4.	*NSPS General Provisions* a.) At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on available information which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source; b.) For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any standard in this part, nothing in this part shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.	EU01-EU08, EU12, EU13, EU15 & EU16	40 CFR 60.11(d) & 40 CFR 60.11(g)

Table 5 - Operating and Emission Limitations			
Item #	**Requirement**	**Applicable Emission Unit**	**Regulatory Basis**
5.	*Application of RSA 125-C:10-e Requirements for Air Emissions of Perfluorinated Compounds Impacting Soil and Water and Installation of Regenerative Thermal Oxidizer* a.) Within 12 months of permit issuance, the owner or operator of the Facility shall complete construction and installation of a three-chamber RTO (PCE01) or equivalent to minimize untreated process gases during RTO operation for the control of PFCs and precursors[3] from EU01-EU08, EU12, EU13, EU15, EU16 and EU22-EU26. b.) Once the RTO is operational, PCE01 shall operate at all times the coating towers or auxiliary equipment are operating to meet the requirements of Table 5, Item 5. and in accordance with the start-up and shutdown conditions outlined in the Air Pollution Control Equipment Monitoring Plan submitted with the application and outlined in Table 6, Item 13. c.) The active combustion chamber of the RTO shall be maintained at a minimum temperature of 1832°F (1000°C), based on an hourly block average as required in Table 6, Item 11; d.) The combustion chambers of the RTO shall be designed with a minimum gas residence time of 1 second each. e.) The inlet flow rate to the RTO shall not exceed 70,000 scfm. f.) For the purpose of ensuring that the application of BACT will not cause or contribute to an exceedance of an AGQS or SWQS, the maximum annual controlled PFC emission limits shall be less than or equal to 0.45 lbs/yr PFOA and 0.57 lbs/yr PFOS. g.) The RTO operation and maintenance shall be in accordance with the Air Pollution Control Equipment Monitoring Plan submitted with Application #18-0227, as updated in accordance with Table 8, Items 10 and 11.	PCE01	RSA 125-C:10-e
6.	*Work Practice Standards for Cleaning Materials Used in Coating of Paper, Fabric, Film and Foil Substrates* A paper, fabric, film, or foil coating operation that uses VOC-containing cleaning material shall control VOC emissions from the cleaning materials using the following work practices: a.) Storing VOC-containing cleaning materials in closed containers; b.) Keeping mixing and storage containers closed at all times except when depositing or removing VOC-containing materials; c.) Minimizing spills of VOC-containing cleaning materials; d.) Conveying VOC-containing cleaning materials from one location to another in closed containers or pipes; and e.) Minimizing VOC emissions from the cleaning of storage, mixing, and conveying equipment.	EU01 – EU08, EU12, EU13 & EU15 – EU17	Env-A 1207.02

[3] RSA 125-C:10-e I(d) defines PFCs as a list of compounds identified in paragraph 1.1 of Environmental Protection Agency Document #: EPA/600/R-08/092 Method 537. "Determination of Selected Perfluorinated Alkyl Acids in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS)", Version 1.1 (September 2009). RSA 125-C:10-e I(e) defines precursor as any substance that has been shown by sound science to be transformed into a PFC under ambient conditions reasonably expected to occur in New Hampshire.

Table 5 - Operating and Emission Limitations

Item #	Requirement	Applicable Emission Unit	Regulatory Basis
7.	*Emission Rate Limits for Coating of Paper, Fabric, Film and Foil Substrates* A paper, fabric, film, or foil coating operation that has TPE of VOCs equal to or greater than 25 tons per consecutive 12-month period, as applied, shall be limited at all times to either the control efficiency or emission rates as applied, as follows: **Paper, Film and Foil Surface Coating** (not including pressure sensitive tape and label coating) a. **Overall Control Efficiency [OC]** 90% b. **kg VOC/kg solids [E_R]** 0.40; **(lb VOC/lb solids)** (0.40) c. **kg VOC/kg coating [E_R]** 0.08; **(lb VOC/lb coating)** (0.08)	EU01 – EU08, EU12, EU13 & EU15 – EU17	Env-A 1207.03(c)
8.	*Determination of Emissions* a.) For a coating source that uses add-on control equipment to achieve compliance, the overall control efficiency (OC) shall be determined on a daily basis using the procedures specified in Table 6, Items 9 and 10. b.) For a coating source that uses a bubble to achieve compliance, the emission rate (E_R) shall be determined on a daily basis using the procedures specified in Table 6, Items 5 through 8.	EU01 – EU08, EU12, EU13 & EU15 – EU17	Env-A 1205
9.	*Visible Emission Standards* The average opacity shall not exceed 20 percent for any continuous 6-minute period.[4]	Prior to installation of PCE01: EU01-EU08, EU12, EU13, EU15 – EU17 After installation of PCE01: EU17 & PCE01	Env-A 2103.02
		EU20 & EU21	Env-A 2002.02
10.	*Particulate Emission Standards for Fuel Burning Devices Installed on or After January 1, 1985* The particulate matter emissions from fuel burning devices installed on or after January 1, 1985 shall not exceed 0.30 lb/MMBtu.	EU20, EU21 & PCE01	Env-A 2003.03
11.	*Maximum Sulfur Content Allowable in Liquid Fuels* The sulfur content of diesel fuel burned in the emergency engines (EU20 & EU21) shall not exceed 15 ppm (0.0015 percent sulfur by weight).	EU20 & EU21	40 CFR 60.4207 (Subpart IIII)

[4] Compliance with visible emission limitations shall be determined using 40 CFR 60, Appendix A, Method 9, or department approved method, upon request by the department.

Table 5 - Operating and Emission Limitations			
Item #	**Requirement**	**Applicable Emission Unit**	**Regulatory Basis**
12.	*Emergency Engine Operating Requirements* The owner or operator of the emergency engine shall: a.) Purchase a certified emergency engine in accordance with the requirements listed in 40 CFR Part 60, Subpart IIII; b.) Install, configure, operate and maintain the engine according to the manufacturer's emission-related written instructions or change only the emission-related settings in a way that is permitted by the manufacturer; and c.) Operate and maintain the engine to meet the emission standards over the entire life of the engine.	EU20 & EU21	40 CFR 60.4206 40 CFR 60.4211(a) & 40 CFR 60.4211(c) (Subpart IIII)
13.	*Emergency Generator Operating Hours Limitation* Each emergency engine[5] shall be limited to 500 hours of total operation per any consecutive 12-month period and only under the operating scenarios listed in Table 5, Item 14.	EU20 & EU21	Env-A 606.02(c)(1)
14.	*Emergency Engines* Each emergency engine shall only operate: a.) As a mechanical or electrical power source during an emergency which is defined in Env-A 1302.17 as an unforeseeable condition that is beyond the control of the owner or operator that; 1. Results in an interruption of electrical power from the electricity supplier to the premises; 2. Requires an interruption of electrical power from the electricity supplier to the premises in order to enable the owner or operator to repair damage from fire, flood, or any other catastrophic event, natural or man-made; 3. Requires operation of an emergency engine to minimize damage from fire, flood, or any other catastrophic event, natural or man-made; or b.) During scheduled maintenance checks and readiness testing, as recommended by federal, state or local government, the manufacturer, the vendor or the insurance company associated with the engine, for a maximum of 100 hours per calendar year.[6]	EU20 & EU21	Env-A 101.671, Env-A 1302.17 & 40 CFR 60.4211(f) (Subpart IIII)

[5] If the emergency engines are not operated in accordance with the requirements in 40 CFR 60.4211(f) or Table 5, Item 14, the engines will not be considered emergency engines and must meet all requirements for non-emergency engines including air pollution controls. The owner or operator shall notify the department of any proposed change to the mode of operation of the emergency generators, which would result in a change in applicability pursuant to 40 CFR 60, Subpart IIII in accordance with Condition X.

[6] The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency engine beyond 100 hours per calendar year.

VI. Monitoring and Testing Requirements

The owner or operator is subject to the monitoring and testing requirements as contained in Table 6:

Table 6 - Monitoring and Testing Requirements

Item #	Parameter	Method of Compliance	Frequency	Applicable Unit	Regulatory Basis
1.	To Be Determined	When conditions warrant, the department may require the owner or operator to conduct stack testing in accordance with USEPA or other department approved methods.	Upon request by the department	Facility Wide	RSA 125-C:6, XI
2.	Sulfur Content of Liquid Fuels	Conduct testing in accordance with appropriate ASTM test methods or retain documentation in accordance with Table 7, Item 4 in order to demonstrate compliance with the sulfur content limitation provisions specified in this permit for liquid fuels.	For each delivery of fuel oil/diesel to the facility	Facility Wide	Env-A 806.02 & Env-A 806.05
3.	Opacity	Until PCE01 is installed and operational, the owner or operator shall perform daily observations of EU01-EU08, EU12, EU13, EU15-EU17 in accordance with the *Corrective Action Plan for Achieving Compliance with Opacity Limits* submitted August 18, 2016 and updated November 8, 2016 to evaluate the presence of visible emissions, and take appropriate action to mitigate opacity in excess of the standard listed in Table 5, Item 9.	Daily when the associated processes are operating	EU01-EU08, EU12, EU13, EU15 – EU17	Env-A 604.02 & Env-A 810.02
4.	VOC Content of Coatings	*VOC Content of a Coating* a.) VOC coating information based upon supplier or stationary source formulation data shall be prima facie evidence of the actual VOC content of the coating. Record all information in accordance with Table 7, Item 6. b.) One of the following methods, as applicable, may be used to determine VOC content for coatings: 1. Use Method 24 as described in 40 CFR 60, Appendix A, using the 60-minute bake time procedure for test ASTM D 2360-01; or 2. Use Method 24A as described in 40 CFR 60, Appendix A.	Maintain on a continuous basis	EU01 – EU08, EU12, EU13 & EU15 – EU17	Env-A 804.03 & Env-A 804.04
5.	VOC Content of Coatings	*Calculation of VOC Content of a Coating Formulation* For a coating that contains more than one VOC component, calculate the VOC content of the coating using the following formula, provided no chemical reaction occurs during the formulation process:	Maintain up-to-date data	EU01 – EU08, EU12, EU13 & EU15 – EU17	Env-A 804.05

Table 6 - Monitoring and Testing Requirements

Item #	Parameter	Method of Compliance	Frequency	Applicable Unit	Regulatory Basis
5. (cont.)	VOC Content of Coatings	$$P = \frac{\sum_{i=1}^{n}(V_i \times C_i)}{V_t}$$ Where: P = The VOC content of the coating formulation, as applied, used on a coating line or operation in units of lb VOC/gal coating, minus water and exempt VOC compounds; n = The number of different coatings or diluents, as applied, used in the coating formulation; i = The subscript denoting an individual coating or diluent; V_i = The volume of the coating or diluent, i, as applied, used in the coating formulation in units of gallons, minus water and exempt VOC compounds; C_i = The VOC content of the coating or diluent, i, as applied, used in the coating formulation in units of lb VOC/gal coating less water and exempt VOC compounds, as determined from the Method 24 or 24A analysis and the calculation procedures in Section 2.2 of EPA-304/1-86-016, *A Guideline for Surface Coating Calculations*, July, 1986; and V_t = The total volume of the coating formulation, as applied, in units of gallons minus water and exempt VOC compounds.	Maintain up-to-date data	EU01 – EU08, EU12, EU13 & EU15 – EU17	Env-A 804.05
6.	VOC Content of Coatings	<u>*Calculation of Daily-weighted Average for a Coating Line Using Multiple Coatings*</u> Calculate the daily-weighted average VOC content of each coating line or operation using the following formula: $$P_w = \frac{\sum_{i=1}^{n}(V_i \times C_i)}{V_t}$$ Where: P_w = The daily-weighted average VOC content of the coatings, as applied, used on a coating line or operation in units of lb VOC/gal coating, minus water and exempt VOC compounds; n = The number of different coatings or diluents, as applied, used each day on the coating line or operation; i = The subscript denoting an individual coating or diluent;	Maintain up-to-date data	EU01 – EU08, EU12, EU13 & EU15 – EU17	Env-A 804.06

Table 6 - Monitoring and Testing Requirements					
Item #	**Parameter**	**Method of Compliance**	**Frequency**	**Applicable Unit**	**Regulatory Basis**
6. (cont.)	VOC Content of Coatings	V_i = The volume of the coating or diluent, *i*, as applied, used each day on a coating line or operation in units of gallons, minus water and exempt VOC compounds; C_i = The VOC content of the coating or diluent, *i*, as applied, used each day on a coating line or operation in units of lb VOC/gal coating less water and exempt VOC compounds, as determined from the Method 24 or 24A analysis and the calculation procedures in Section 2.2 of EPA-304/1-86-016, *A Guideline for Surface Coating Calculations*, July, 1986. For multiple component coatings, $C_i = P$ as calculated in Table 6, Item 5; and V_t = The total volume of all coatings, as applied, used each day on a coating line or operation in units of gallons minus water and exempt VOC compounds.	Maintain up-to-date data	EU01 – EU08, EU12, EU13 & EU15 – EU17	Env-A 804.06
7.	Daily-weighted Average Coating Density (ρ_w)	*Calculation of Daily-weighted Average Coating Density (ρ_w) for a Coating Line Using Multiple Coatings* Calculate the daily-weighted average coating density of each coating line or operation using the following formula: $$\rho_w = \frac{\sum_i^n (V_i \, x \, \rho_i)}{V_t}$$ Where: ρ_w = The daily-weighted average density of the coatings, as applied, used on a coating line or operation in units of lb/gal coating; n = The number of different coatings or diluents, as applied, used each day on the coating line or operation; i = The subscript denoting an individual coating or diluent; V_i = The volume of the coating or diluent, *i*, as applied, used each day on a coating line or operation in units of gallons; ρ_i = The density of the coating or diluent, *i*, as applied, used each day on a coating line or operation in units of lb/gal coating; and Vt = The total volume of all coatings, as applied, used each day on a coating line or operation in units of gallons minus water and exempt VOC compounds.	Maintain up-to-date data	EU01 – EU08, EU12, EU13 & EU15 – EU17	Env-A 804.06

Table 6 - Monitoring and Testing Requirements

Item #	Parameter	Method of Compliance	Frequency	Applicable Unit	Regulatory Basis
8.	Daily-weighted average emission rate (E_R)	*Calculation of Daily-weighted Average Emission Rate (E_R) for a Coating Line Using Multiple Coatings without Add-on Control* The owner or operator may choose to demonstrate compliance with the emission limitations specified in Table 5, Item 7.c. by calculating the daily weighted average E_R as follows: $$E_R = \frac{P_w}{\rho_w}$$ Where: E_R = The daily-weighted average VOC emission rate, as applied, used on a coating line or operation in units of lb VOC/lb coating; P_w = The daily-weighted average VOC content of the coatings, as applied, used on a coating line or operation in units of lb VOC/gal coating, minus water and exempt VOC compounds as calculated in Table 6, Item 6; and ρ_w = The daily-weighted average density of the coatings, as applied, used on a coating line or operation in units of lb/gal coating as calculated in Table 6, Item 7.	Maintain up-to-date data	EU01 – EU08, EU12, EU13 & EU15 – EU17	Env-A 804.06
9.	Coating Towers VOC Controlled Emission Rate	*Calculation of Controlled VOC Emission Rate for Coating Towers (E_{tc})* The owner or operator shall calculate the controlled VOC emission rate from the coating towers using the following calculation: $$E_{tc} = E_{tu}(1 - CE\ x\ RE)$$ Where: E_{tc} = The controlled VOC emission rate from the towers; E_{tu} = The uncontrolled VOC emission rate from the towers that are exhausted through the RTO; CE = Capture efficiency as determined during testing pursuant to Table 6, Item 16.c.; and RE = Removal efficiency as determined during testing pursuant to Table 6, Item 14.d.	Maintain up-to-date data	EU01 – EU08, EU12, EU13 & EU15 – EU16	Env-A 804
10.	Overall Control Efficiency for VOC RACT	*Calculation of Overall Control Efficiency (OC)* The owner or operator may choose to demonstrate compliance with the overall control efficiency specified in Table 5, Item 7.a. by using the following calculation:	Maintain up-to-date data	EU01 – EU08, EU12, EU13 & EU15 – EU17	Env-A 804 & Env-A 1203.64

Table 6 - Monitoring and Testing Requirements					
Item #	**Parameter**	**Method of Compliance**	**Frequency**	**Applicable Unit**	**Regulatory Basis**
10. (cont.)	Overall Control Efficiency for VOC RACT	$OC = \frac{(E_{tu} + E_a) - (E_{tc} + E_a)}{(E_{tu} + E_a)} \; x \; 100$ Where: OC = The overall control efficiency in %; E_{tu} = The uncontrolled VOC emission rate from the towers that are exhausted through the RTO; E_a = The VOC emission rate from the antenna cover fabrication area (EU17); and E_{tc} = The controlled VOC emission rate from the towers calculated pursuant to Table 6, Item 9.	Maintain up-to-date data	EU01 – EU08, EU12, EU13 & EU15 – EU17	Env-A 804 & Env-A 1203.64
11.	Thermal Oxidizer Operating Parameters	a.) Monitor the thermal oxidizer combustion chamber temperature at least once every 15 minutes and record the hourly average temperature.	Monitor every 15 minutes when the associated process is operating	PCE01	RSA 125-C:6, XI Env-A 906 & Env-A 911.03(b)
		b.) If the average hourly temperature reading is less than the minimum specified in Table 5, Item 5.c, then the owner or operator shall investigate and take corrective action immediately upon discovery of the permit deviation to restore the air pollution control equipment (PCE01) to within allowable permit conditions. c.) If the average hourly temperature cannot be brought back up within 48 hours of the excursion[7], then maintain records of the excursion pursuant to Table 7, Item 15.	As noted		
		d.) Monitor the gas flow to the thermal oxidizer at least once every 15 minutes and record the hourly average flowrate.	Monitor every 15 minutes when the associated process is operating		
12.	Annual Thermal Oxidizer Inspection	a.) Conduct an annual (or more frequently if conditions indicate an inspection is warranted) visual external integrity inspection of the thermal oxidizer and the ductwork from each source leading to the	As noted	PCE01	RSA 125-C:6, XI

[7] An excursion occurs when a monitored parameter specified by the permit to document the performance of the air pollution control equipment is above the maximum or below the minimum set point or is outside of the required operating range for that parameter.

Table 6 - Monitoring and Testing Requirements					
Item #	**Parameter**	**Method of Compliance**	**Frequency**	**Applicable Unit**	**Regulatory Basis**
12. (cont.)	Annual Thermal Oxidizer Inspection	RTO. The inspection shall include an evaluation of whether all emissions are being vented through the dedicated stack exit. b.) Monitor parameters to ensure total enclosure of applicable emission units in a manner and a frequency as outlined in the Air Pollution Control Equipment Monitoring Plan required in Table 8, Item 10; c.) Confirm that collection headers that are routed to the RTO are operating under negative pressure on an annual basis and in accordance with the Air Pollution Control Equipment Monitoring Plan in Table 8, Item 10.; d.) The inspections and monitoring shall be conducted by plant personnel familiar with the operation of the oxidizer and associated equipment.	As noted	PCE01	RSA 125-C:6, XI
13.	Air Pollution Control Equipment Monitoring Plan	*Start-up and Shutdown Requirements* a.) The owner or operator shall not initiate process operations with perfluorinated compounds prior to the RTO (PCE01) reaching the established operational temperature required in Table 5, Item 5c. b.) During any shutdown condition, process operations will proceed to a safe stopping point to minimize potential emissions.	Continuous	PCE01	RSA 125-C:10-e Env-A 810.01 & Env-A 910.01
14.	Initial RTO Stack Testing Requirements	*Initial Regenerative Thermal Oxidizer Stack Testing Requirements* The owner or operator shall conduct initial emissions testing in accordance with Table 6, Items 15 and 16 to evaluate the following parameters: a.) Post-RTO emissions of PFAS compounds in order to determine compliance with the maximum allowable annual controlled PFC emission limitations listed in Table 5, Item 5.g.; b.) Post-RTO emissions of hydrogen fluoride (CAS #7664-39-3), perfluoroisobutene (CAS #382-21-8), tetrafluoroethylene (CAS #116-14-3), hexafluoropropylene (CAS #116-15-4), carbonyl fluoride (CAS #353-50-4), and ammonium perfluorooctanoate (CAS #3825-26-1) to determine compliance with Env-A 1400 as outlined in Table 5, Item 2; Table 7, Item 10 and Table 8, Item 5.; c.) Pre- and post-RTO emissions of VOC to	Within 60 days of startup of the control device	PCE01	RSA 125-C:10-e Env-A 802 Env-A 804 & Env-A 704.02

Table 6 - Monitoring and Testing Requirements					
Item #	**Parameter**	**Method of Compliance**	**Frequency**	**Applicable Unit**	**Regulatory Basis**
		determine removal efficiency (RE); d.) Capture efficiency for VOC and PFC emissions from the controlled devices into the main header to the RTO; and e.) The owner or operator shall be subject to fees for any testing and monitoring which department personnel undertake or audit in accordance with this permit.			
15.	Performance Test Notifications	Compliance testing shall be planned and carried out in accordance with the following: a.) The facility must notify the department at least 30 days prior to conducting a performance test; b.) A pre-test protocol meeting the requirements of Env-A 802.04 shall be submitted to the department at least 30 days prior to the commencement of testing; c.) The owner or operator and any contractor retained by the owner or operator to conduct the test shall meet with a department representative at least 15 days prior to the test date to finalize the details of the testing as outlined in Env-A 802.05; d.) A pre-test meeting may be held less than 15 days prior to the test so long as the department staff are available and implementation of any testing or operation changes resulting from the meeting can be carried out prior to scheduled test date and scheduled test integrity is not jeopardized; e.) Notify the department as soon as possible, but no later than 7 days, and obtain approval from the department prior to any proposed changes in the testing schedule for a compliance stack test; f.) The owner or operator shall obtain prior approval from the department, which shall be based on staff availability, of any new date for a compliance stack test; g.) A test report shall be submitted to the department within 60 days after the completion of testing.	30 days prior to performance testing or as specified	PCE01	RSA 125-C:10-e Env-A 802 Env-A 804.12 & Env-A 804.13
16.	Performance Test	a.) Each performance test shall conform to the following: 1. The general requirements of 40 CFR §60.8; and	For each performance test	PCE01	RSA 125-C:10-e Env-A 802 & Env-A 804.14

Table 6 - Monitoring and Testing Requirements					
Item #	**Parameter**	**Method of Compliance**	**Frequency**	**Applicable Unit**	**Regulatory Basis**
16. (cont.)	Performance Test	2. The test methods contained in 40 CFR 60, Appendix A, 40 CFR 51, Appendix M, or any other stack test method promulgated by the USEPA, or any alternative, conditional or other test method approved by the USEPA, or any alternative method approved by the department in accordance with Env-A 809. b.) The department shall approve deviations from the agreed-upon test method or pre-test protocol only if the following criteria are met: 1. The owner or operator informs department personnel assigned to the stack test of the following: i. The deviation from the testing method or planned operational mode of the source; ii. The reason(s) for the deviation; and iii. The implications of such a deviation; 2. The Owner or Operator provides technical justification showing that allowance of such deviation will not affect the accuracy of the compliance stack emissions test; c.) The following test methods, or department approved alternatives, shall be used, as applicable: 1. For PFAS testing required in Condition VI. Table 6, Item 14, the testing shall consist of six separate sampling runs of sufficient duration to ensure reporting levels sufficient to demonstrate compliance with the limitations in Table 5, Item 5.g. Samples of three of the sampling runs, consistent with the stack testing conducted in 2018, will be provided to NHDES so that NHDES can have the samples analyzed by a separate laboratory. For PFAS testing required in Condition VI Table 6, Item 17, the testing shall consist of three separate sampling runs of sufficient duration to ensure reporting levels sufficient to demonstrate compliance with the limitations in Table 5, Item 5.g.	For each performance test	PCE01	RSA 125-C:10-e Env-A 802 & Env-A 804.14

Table 6 - Monitoring and Testing Requirements					
Item #	**Parameter**	**Method of Compliance**	**Frequency**	**Applicable Unit**	**Regulatory Basis**
16. (cont.)	Performance Test	2. For HF, the testing shall consist of three separate one-hour sampling runs post-RTO. 3. For VOCs, the testing shall consist of three separate one-hour sampling runs with concurrent sampling pre- and post-RTO. 4. Collect combustion zone temperature readings as agreed upon in the pre-test protocol required in Table 6, Item 15; 5. Collect process information as agreed upon in the pre-test protocol required in Table 6, Item 15; 6. USEPA Methods 1-4 for exit flow rate, percentage of carbon dioxide, oxygen and moisture; 7. Modified Method 5 as per M0010 in SW-846 for PFAS emissions or an EPA-approved method[8]; 8. USEPA Method 25 or 25A for total gaseous organic emissions; 9. USEPA Method 26A for hydrogen fluoride emissions; 10. USEPA Method 204 to determine capture efficiency of the towers into the main header to the RTO; and 11. USEPA Method 18 for methane. d.) Dip pan samples of formulated dispersions shall be taken during each stack test run and analyzed.	For each performance test	PCE01	RSA 125-C:10-e Env-A 802 & Env-A 804.14
17.	Periodic RTO Stack Testing Requirements	*Periodic Regenerative Thermal Oxidizer Stack Testing Requirements* The owner or operator shall conduct periodic emissions testing in accordance with Table 6, Items 15 and 16 to evaluate the following parameters: a.) Post-RTO emissions of PFAS compounds in order to determine compliance with the maximum allowable annual controlled PFC emission limitations listed in Table 5, Item 5.g.; and b.) Capture efficiency for PFC emissions from the controlled devices into the main header to the RTO.	Annually no more than 13 months after previous test or to establish new operating limits	PCE01	RSA 125-C:10-e Env-A 802 & Env-A 804.13

[8] If no EPA-approved method for PFAS testing exists at the time of the performance test required in Condition VI. Table 6, Item 14, PFAS samples shall be analyzed for at least the list of PFAS identified by USEPA Method 537. If an EPA-approved method for PFAS testing (OTM-45) does exist at the time of the performance test required in Condition VI. Table 6, Item 14, PFAS samples shall be analyzed for the complete list of analytes identified in the EPA-approved method.

Table 6 - Monitoring and Testing Requirements					
Item #	**Parameter**	**Method of Compliance**	**Frequency**	**Applicable Unit**	**Regulatory Basis**
17. (cont.)	Periodic RTO Stack Testing Requirements	c.) Pre- and post-RTO emissions of VOC to determine compliance with the VOC control efficiency requirement in Table 5, Item 7a.; and d.) Capture efficiency for VOC emissions from the controlled devices into the main header to the RTO.	Every 5 years within the same calendar quarter of the date of the anniversary of the most recent stack test	PCE01	RSA 125-C:10-e Env-A 802 & Env-A 804.13
		e.) Pursuant to RSA 125-C:10-e, should the owner or operator wish to demonstrate to the department that the devices subject to RSA 125-C:10-e no longer contribute to an exceedance of an AGQS or SWQS, the owner or operator shall submit a written demonstration and conduct emission testing to establish an appropriate minimum combustion chamber temperature for the RTO (PCE01) as required in Condition V. Table 5, Item 5(c).	As specified	EU01-EU08, EU12, EU13, EU15, EU16 and EU22-EU26	RSA 125-C:10-e
18.	Hours of Operation	Each emergency engine shall be equipped with a non-resettable hour meter.	Continuous	EU20 & EU21	40 CFR 60.4209 (Subpart IIII)

VII. Recordkeeping Requirements

The owner or operator shall be subject to the recordkeeping requirements identified in Table 7:

Table 7 - Recordkeeping Requirements				
Item #	**Requirement**	**Duration/ Frequency**	**Applicable Unit**	**Regulatory Basis**
1.	*Record Retention and Availability* Keep the required records on file. These records shall be available for review by the department upon request.	Retain for a minimum of 5 years	Facility Wide	Env-A 902.01
2.	*General Recordkeeping Requirements for Process Operations* Maintain the following records for process operations: a.) Total quantity of all materials used or produced in each process that are necessary to calculate emissions; b.) Hours of operation of each process;	Monthly	EU01 – EU08, EU12, EU13, EU15 – EU17, EU22 – EU26	Env-A 903.02
	c.) Safety Data Sheets (SDSs) or other documentation containing the concentration of total VOCs, each HAP and RTAP in each raw material used; and d.) Results of dip pan samples of formulated dispersions taken in accordance with Table 6, Item 16(d) containing the concentration of PFAS.	As specified		

Table 7 - Recordkeeping Requirements				
Item #	**Requirement**	**Duration/ Frequency**	**Applicable Unit**	**Regulatory Basis**
3.	*General Recordkeeping Requirements for Combustion Devices* Maintain the following records of fuel characteristics and utilization for the fuel used in the combustion devices: a.) Type (e.g. diesel fuel, natural gas) and amount of fuel burned in each device; or b.) Type and amount of fuel burned in multiple devices and hours of operation of each device to be used to apportion fuel use between the multiple devices. c.) Hours of operation for the emergency engines.	Monthly	EU01 – EU06, EU12, EU13, EU15, EU16, EU20 – EU22, EU24 & EU26	Env-A 903.03
4.	*Liquid Fuel Oil Recordkeeping Requirements* In lieu of sulfur testing pursuant to Table 6, Item 2, the owner or operator may maintain fuel delivery tickets that contain the following information: A written statement from the fuel supplier that the sulfur content of the fuel as delivered does not exceed state or federal standards for that fuel.	Whenever there is a change in fuel supplier but at least annually	EU20 & EU21	Env-A 806.05
5.	*VOC Emission Statements Recordkeeping Requirements* If the actual annual VOC emissions from all permitted devices located at the Facility are greater than or equal to 10 tpy, then record the following information: a.) Identification of each VOC-emitting process or device; b.) The operating schedule during the high ozone season (June 1 through August 31) for each VOC-emitting process or device identified in Table 7, Item 5.a. above, including: 1. Typical hours of operation per day; and 2. Typical days of operation per calendar month. c.) The following VOC emission data from each VOC-emitting processes or devices identified in Table 7, Item 5.a. above, including: 1. Actual monthly VOC emissions, in tons; 2. Typical high ozone season day VOC emissions, in pounds per day; and 3. The emission factors and the origin of the emission factors used to calculate the VOC emissions.	Maintain Data for Annual Report	EU01-EU08, EU12, EU13, EU15 – EU17 & EU20 – EU22	Env-A 904
6.	*VOC Recordkeeping for Surface Coating and Printing Operations* Record the following information for each coating operation subject to Env-A 1200: a.) Coating formulation and analytical data, as follows: 1. Supplier; 2. Name and color; 3. Type; 4. Identification number; 5. Density described as lb/gal; 6. Total volatile content described as weight percent; 7. Water content described as weight percent; 8. Exempt solvent content described as weight percent; 9. VOC content described as volume percent;	Maintain Current Data	EU01 – EU08, EU12, EU13 & EU15 – EU17	Env-A 904.03

Table 7 - Recordkeeping Requirements				
Item #	**Requirement**	**Duration/ Frequency**	**Applicable Unit**	**Regulatory Basis**
6. (cont.)	10. Solids content described as volume percent; 11. Diluent name and identification number; 12. Diluent solvent density described in lb/gal; 13. Diluent VOC content described as weight percent; 14. Diluent exempt solvent content described as weight percent; 15. Volume of diluent VOC described as gal; and 16. Diluent/solvent ratio described as gal diluent solvent per gal coating. b.) The number of gallons of each coating, including solvents and diluents, utilized during a typical high ozone season day; and c.) Process information for a typical high ozone season day, including: 1. Method of application; 2. Number of coats; 3. Drying method; and 4. Substrate type and form.	Maintain Current Data	EU01 – EU08, EU12, EU13 & EU15 – EU17	Env-A 904.03
7.	*Recordkeeping for VOC RACT Compliance* Maintain the following records in order to show compliance with the VOC RACT limits stated in Table 5, Item 7: a.) If all compliant coatings are used on a given day, then records of VOC coating content shall be maintained pursuant to Table 6, Items 4 and 5, and Table 7, Item 6. These records shall be used to show compliance with the coating limits in Table 5, Item 7.b. or c. b.) If a bubble is used to average coating VOC contents, then maintain records of the calculations conducted pursuant to Table 6, Items 6, 7, and 8. The result of the bubble calculation shall be less than the limit contained in Table 5, Item 7.c. c.) If the owner or operator is showing compliance with the overall control efficiency limit contained in Table 5, Item 7.a. then maintain records of the calculations conducted pursuant to Table 6, Items 9 and 10.	Daily	EU01 – EU08, EU12, EU13 & EU15 – EU17	Env-A 906
8.	*Recordkeeping for Sources or Devices with Add-on VOC Air Pollution Control Equipment* Record the following information for the RTO: a.) The air pollution control device identification number, type, model number, and manufacturer; b.) Installation date; c.) Process or devices controlled; d.) The type and location of the capture system, capture efficiency percentage, and method of determining capture efficiency; e.) Records of startup and shutdown of the PCE01 in conjunction with appropriate operational information of the	Maintain Current Data	PCE01	Env-A 904.08 & RSA 125-C:10-e

Table 7 - Recordkeeping Requirements				
Item #	**Requirement**	**Duration/ Frequency**	**Applicable Unit**	**Regulatory Basis**
8. (cont.)	process operations to demonstrate compliance with Table 6, Item 13; and f.) The destruction or removal efficiency of the RTO, including: 1. Destruction or removal efficiency, in percent; 2. Date tested; and 3. The emission test results, including: i. The inlet concentration of VOC; ii. The outlet concentration of VOC and each PFC for which an AGQS or SWQS has been established; and iii. The method of determination of the above concentrations. g.) The hourly average combustion chamber temperature in degrees F and hourly average inlet gas flowrate in scfm.	Maintain Current Data	PCE01	Env-A 904.08 & RSA 125-C:10-e
9.	*General NOx Recordkeeping Requirements* If the actual annual NOx emissions from all permitted devices located at the Facility are greater than or equal to 10 tpy, then record the following information: a.) Identification of each fuel burning device; b.) Operating schedule during the high ozone season (June 1 through August 31) for each fuel burning device identified in Table 7, Item 9.a, above, including: 1. Typical hours of operation per day; 2. Typical days of operation per calendar month; 3. Type and amount of each fuel burned; 4. Design heat input rate in MMBtu/hr; and 5. The following NOx emission data: i. Actual NOx emissions per month; ii. Typical high ozone season day NOx emissions, in pounds per day; and iii. Emission factors and the origin of the emission factors used to calculate the NOx emissions.	Maintain Data for Annual Report	EU01 – EU06, EU12, EU13, EU15, EU16, EU20 – EU22, EU24 & EU26	Env-A 905.02

Table 7 - Recordkeeping Requirements				
Item #	**Requirement**	**Duration/ Frequency**	**Applicable Unit**	**Regulatory Basis**
10.	*Regulated Toxic Air Pollutants* Maintain records documenting compliance with Env-A 1400. Compliance was demonstrated at the time of permit issuance as described in the department's Permit Application Review Summary for Application #18-0227. The source must update the compliance demonstration using one of the methods provided in Env-A 1405 if: a.) There is a revision to the list of RTAPs lowering the AAL or *de minimis* value for any RTAP emitted from the Facility; b.) The amount of any RTAP emitted is greater than the amount that was evaluated in the Application Review Summary (e.g., use of a coating will increase); c.) An RTAP that was not evaluated in the Application Review Summary will be emitted (e.g., a new coating will be used); or d.) Stack conditions (e.g. air flow rate) change.	Update prior to process changes and within 90 days of each revision of Env-A 1400	Facility Wide	Env-A 902.01 (State-only Requirement)
11.	*Additional Recordkeeping Requirements: Facility-wide emission limitations*[9] Maintain a 12-month running total of facility-wide emissions, calculated pursuant to Env-A 705.03, of VOC and HAPs, for the purpose of demonstrating that the total emissions of these pollutants are below the major source thresholds as limited in Table 5, Item 1.	Monthly	EU01 – EU08, EU12, EU13, EU15 – EU17, EU20 – EU26 & PCE01	Env-A 906 & Env-A 604.02(a)(3)
12.	*40 CFR 60 Subpart VVV – Polymeric Coating of Supporting Substrates Recordkeeping Requirements* Maintain records of estimates of the projected annual amount of VOC to be used for the manufacture of polymeric coated substrates over the year and actual 12-month VOC use.	Semiannual	EU01 – EU08, EU12, EU13, EU15 & EU16	40 CFR 60.744(b) & 40 CFR 60.747(c) (Subpart VVV)

[9] Facility-wide VOC emissions shall include not only the contribution from the process equipment, but also the contribution from fuel burned in the process equipment burners and the emergency engines. Prior to the final construction and installation date of the RTO (PCE01), actual VOC emissions will be exhausted through the existing coating tower stacks. After the final construction and installation date of the RTO (PCE01), VOC emissions will be exhausted through the proposed RTO stack.

Table 7 - Recordkeeping Requirements				
Item #	**Requirement**	**Duration/ Frequency**	**Applicable Unit**	**Regulatory Basis**
13.	*Additional Recordkeeping Requirements: Pollution control equipment* Maintain records of all air pollution control equipment activities required in Tables 5 and 6, including: a.) Stack test results required pursuant to Table 6, Items 14 and 17; b.) The information recorded in Table 6, Item 3 for visible stack emission checks including any Method 9 observations[10]; c.) Hourly averaged combustion chamber temperature readings pursuant to Table 6, Item 11.a.; d.) Date, time, duration and probable cause of pollution control equipment monitoring parameter excursions; e.) Air pollution control equipment maintenance activities, including preventative maintenance and annual visual inspections. Records shall include the date and duration of any outages; and f.) Corrective actions and preventative measures taken.	As specified in Table 6	PCE01	Env-A 906
14.	*40 CFR 60 Subpart IIII – Stationary Compression Ignition Internal Combustion Engines Recordkeeping Requirements* The owner or operator shall maintain the following records: a.) Documentation from the engine manufacturer certifying that the engine complies with the applicable emission standards stated in 40 CFR Part 60, Subpart IIII; b.) A copy of the manufacturer's emission-related written instructions (O&M manual) for the engine and its associated control devices; c.) The maintenance conducted on the engine in order to demonstrate that the device was operated and maintained according to the O&M manual;	Maintain Up-to-date Data	EU20 & EU21	40 CFR 60.4211 (Subpart IIII)
14. (cont.)	d.) The operation of the engine in emergency (i.e. loss of power) and non-emergency situations (i.e. maintenance and testing) that are recorded through the non-resettable hour meter. The owner or operator must record the time of operation of the engine and the reason the engine was in operation during that time; and e.) Documentation of the federal, state or local standard(s) that require the owner or operator to conduct maintenance and testing for more than 100 hours per calendar year if the owner or operator is exercising the option listed in Footnote 7.	Maintain Up-to-date Data	EU20 & EU21	40 CFR 60.4211 (Subpart IIII)
15.	*Permit Deviation Recordkeeping* Maintain records of each permit deviation which result in excess emissions or monitoring parameter excursions lasting 48 hours or more. The content of the records is specified in Condition IX.B.2.(e through n).	As specified	EU01-EU08, EU12, EU13, EU15 – EU17, EU20 – EU26 & PCE01	Env-A 911.03(b)

[10] If a Method 9 test is conducted, the records shall include a copy of the certification for the person who conducted the test.

VIII. Reporting Requirements

A. Pursuant to Env-C 203.02(b), *Date of Issuance or Filing*, written documents shall be deemed to have been filed with or received by the department on the actual date of receipt by the department, as evidenced by a date stamp placed on the document by the department in the normal course of business.

B. All emissions data submitted to the department shall be available to the public. Claims of confidentiality for any other information required to be submitted to the department pursuant to this permit shall be made at the time of submission in accordance with Env-A 103, *Claims of Confidentiality*.

C. The owner or operator shall be subject to the reporting requirements identified in Table 8 below.

Table 8 - Reporting Requirements

Item #	Requirement	Frequency	Applicable Emission Unit	Regulatory Basis
1.	*General Reporting Requirements* a.) Each report shall be separately and clearly labeled with: 1. The name, mailing address and physical address of the source covered by the report; 2. The operating period covered by the report; 3. The permit number and condition or item number that requires the report submittal; 4. The type of report, using the name of the report as specified in the reporting condition in the permit, that is being submitted; and 5. The date the report was prepared; b.) An owner or operator who submits a report that is a revision to a previously-submitted report shall clearly identify the revised report with the information specified in Table 7, Item 1a. above, and indicate which portions of the report have been revised; c.) The owner or operator may submit more than one report with a single cover, provided the owner or operator clearly identifies each report being submitted using the information required in Table 7, Items 1a. and 1b. above, if applicable, for each report; and d.) The owner or operator shall submit reports as paper documents or by electronic means.	For each report submitted to the department	Facility Wide	Env-A 907.01

Table 8 - Reporting Requirements				
Item #	**Requirement**	**Frequency**	**Applicable Emission Unit**	**Regulatory Basis**
2.	*Annual Emissions Report* Submit an annual emissions report which shall include the following information: a.) Actual calendar year emissions from each coating tower (EU01-EU08, EU12, EU13, EU15 – EU17, EU22 – EU26) of: 1. Total VOCs; 2. Each HAP and RTAP, reported by CAS number; and 3. Each PFAS as measured by the most recent stack test conducted in accordance with Table 6, Items 14 or 17. b.) Actual calendar year emissions from the process heaters associated with the coating towers (EU01 – EU06, EU12, EU13, EU15, EU16, EU22, EU24 and EU26) and the engines (EU20 and EU21)[11] of: 1. NOx; 2. Total VOCs; 3. Filterable PM; 4. CO; and 5. SO_2. c.) The methods used in calculating such emissions in accordance with Env-A 705.03, *Determination of Actual Emissions for Use in Calculating Emission-Based Fee*; d.) The emission factors and the origin of the emission factors; and e.) All information recorded in accordance with Table 7, Items 2 and 3.	Annually (received by the department no later than April 15th of the following year)	EU01-EU08, EU12, EU13, EU15 – EU17 & EU20 – EU26	Env-A 907.02 & RSA 125-C:10-e
3.	*VOC Emission Statements Reporting Requirements* If the actual annual VOC emissions from all permitted devices located at the Facility are greater than or equal to 10 tpy, then include all the data recorded in accordance with Table 7, Item 5 with the annual emission report.	Annually (received by the department no later than April 15th of the following year)	EU01-EU08, EU12, EU13, EU15 – EU17 & EU20 – EU22	Env-A 908
4.	*NOx Emission Statements Reporting Requirements* If the actual annual NOx emissions from all permitted devices located at the Facility are greater than or equal to 10 tpy, then include all data recorded in accordance with Table 7, Item 9 with the annual emission report.	Annually (received by the department no later than April 15th of the following year)	EU01 – EU06, EU12, EU13, EU15, EU16, EU20 – EU22, EU24 & EU26	Env-A 909

[11] The RTO (PCE01), rated at less than 10 MMBtu/hr burning natural gas, and a boiler, rated at 1.56 MMBtu/hr burning #2 fuel oil, are also located at the facility but because they are below permitting thresholds of Env-A 607.01 and the facility is a true minor source for SO_2, NOx, CO, and PM, the criteria pollutant emissions from these combustion devices are not required to be included in the annual emissions reporting requirements pursuant to Env-A 907.02.

Table 8 - Reporting Requirements				
Item #	**Requirement**	**Frequency**	**Applicable Emission Unit**	**Regulatory Basis**
5.	*Compliance Demonstration for Env-A 1400, Regulated Toxic Air Pollutant Regulation and RSA 125-C:10-e, Requirements for Air Emissions of Perfluorinated Compounds Impacting Soil and Water* a.) The owner or operator shall update and submit an Env-A 1400 compliance demonstration in accordance with Table 7, Item 10 and an updated air deposition modeling analysis of post-controlled PFC emissions based on final as-built RTO emission parameters and the results of the stack testing conducted pursuant to Table 6, Item 14 for RTAPs and PFCs, respectively. b.) The Env-A 1400 compliance demonstration required in Table 8, Item 5(a) above, shall include the submission of the air dispersion model for RTAP emissions, an evaluation of compliance with the limitations in Env-A 1400, a determination if the RTO requires a permit pursuant to Env-A 607.01(t) and Env-A 1403, *Permit Requirements* and if so, a compliance plan and schedule as outlined in Table 8, Item 5(c), below. c.) The compliance plan and schedule shall include the following: 1. A narrative description of how the source shall achieve compliance with Env-A 1400 in both the long-term (i.e. proposed permit conditions or addition of air pollution control equipment) and short-term (i.e. operating limitations to mitigate the emissions until a permit is issued); 2. A schedule of remedial measures, including an enforceable sequence of actions with milestones leading to compliance with any applicable requirements for which the source identified in Item 5(b) above; and 3. A schedule for submission of certified progress reports no less frequently than every month. d.) The updated deposition model required in Table 8, Item 5(a) above, shall include the submission of an evaluation of compliance with the limitations in Condition V. Table 5, Item 5(g), a determination if the facility requires a permit limiting its potential to emit pursuant to Env-A 607.01(n) and proposed operating limitations, if necessary, to ensure compliance with the annual PFC emission limits in Condition V. Table 5, Item 5(g).	Received by the department within 30 business days of the submittal of the stack testing report required in Table 6, Item 15	PCE01	RSA 125-C:10-e Env-A 1400 & Env-A 910.01

Table 8 - Reporting Requirements				
Item #	**Requirement**	**Frequency**	**Applicable Emission Unit**	**Regulatory Basis**
6.	*Update to Air Pollution Dispersion and Deposition Modeling Impact Analysis* If an update to the facility's air pollution dispersion or deposition modeling impact analysis is required pursuant to Env-A 606.02 (e.g. stack parameters including exhaust flow rate and temperature for PCE01 differ from stack parameters as modeled in Application #18-0227), submit the information required pursuant to Env-A 606.04: a.) With the permit application submitted for the change which triggered the analysis; or b.) Within 15-days of completion of the change which triggered the analysis, if a permit application is not required.	As specified	EU01-EU08, EU12, EU13, EU15 – EU17, EU22 – EU26 & PCE01	RSA 125-C:10-e & Env-A 910.01
7.	*Permit Deviation Reporting Requirements* Report permit deviations that cause excess emissions, or monitoring parameter excursions lasting 48 hours or more, in accordance with Condition IX.B.	As specified	EU01-EU08, EU12, EU13, EU15 – EU17, EU20 – EU26 & PCE01	Env-A 911.04(a) & Env-A 911.04(d)
8.	*Annual Emission Fee* Pay annual emission fee in accordance with Condition XII.	Annually (received by department no later than May 15th of the following year)	EU01-EU08, EU12, EU13, EU15 – EU17, EU20 – EU26 & PCE01	Env-A 705
9.	*Startup Notification* Submit a notification to the department stating the date of initial startup of PCE01.	Actual date of initial startup of the device, received by the department within 10 business days after such date	PCE01	Env-A 910.01

Table 8 - Reporting Requirements

Item #	Requirement	Frequency	Applicable Emission Unit	Regulatory Basis
10.	<u>*Air Pollution Control Equipment Monitoring Plan*</u> An air pollution control equipment monitoring plan was submitted with Application #18-0227. However, because the proposed control device is in the preliminary design phase, not all information was provided in the plan. Therefore, the owner or operator shall submit a monthly update report which shall include the following: a.) *Manufacturer of Control Device:* Status update on selection of the manufacturer of the air pollution control device. b.) *Model and Serial Number of Control Device:* Submit information once model and serial numbers are known. c.) *Description of Control Device and How It Operates in the Process:* Submit documentation from the manufacturer of the air pollution control device including schematics, documentation of design and detailed description of the control device and how it will be designed to operate. d.) *The Capture Efficiency of the Device and Method of Determination:* Status update on tower improvements for maximizing capture efficiency conducted to date and going forward until construction is complete. Submit a Total Enclosure Monitoring and Capture Efficiency Verification Plan (for each device, as applicable) so that fugitive emissions are minimized or eliminated. e.) *The Control Efficiency of the Device and Method of Determination:* Submit documentation from the manufacturer of the air pollution control device regarding control efficiency guarantees and proposed methods of determination of the control efficiency of the device. f.) *Operational Parameters of the Device, and Normal Ranges, and Range During Start-up or Shutdown Conditions:* Submit updated operational parameters of the device and normal ranges from the manufacturer of the air pollution control device. g.) *Description of Data Recording or Recordkeeping, Parameter Set points and Alarms, and Operator Responses to Malfunctions of the Control Device to Prevent Uncontrolled Emissions:* Submit updated information pertaining to data recording or recordkeeping, parameter setpoints and alarms, and operator responses to malfunctions from the manufacturer of the air pollution control device.	Monthly (Received by the department within 10 business days of the end of each month) until the Final Air Pollution Control Equipment Monitoring Plan required in Table 8, Item 10. k.) is approved by the department	PCE01	RSA 125-C:10-e Env-A 810.01 & Env-A 910.01

Table 8 - Reporting Requirements

Item #	Requirement	Frequency	Applicable Emission Unit	Regulatory Basis
10. (cont.)	h.) *Manufacturer's Recommended Procedures for Operation:* Submit documentation from manufacturer of the air pollution control device regarding recommended procedures for operation. i.) *Manufacturer's Recommended Schedule for Service, Maintenance and Calibration of the Device:* 1. Submit documentation from the manufacturer of the air pollution control device regarding recommended schedule for service, maintenance and calibration of the device; and 2. Submit additional information pertaining to the maintenance of the process vent emission streams that will be collected and tied into a header system. This information shall include methods for keeping the vents clear of char material, including but not limited to insulation, cleaning ports, cleaning frequency and methodology and any proposed operation and maintenance of auxiliary equipment necessary to ensure the process vent emission streams remain clear of char material. j.) *Other Operational Parameters Affecting the Ability of the Device to Control Emissions:* Submit documentation from manufacturer of the air pollution control device regarding any other operational parameters affecting the ability of the device to control emissions, as necessary.	Monthly (Received by the department within 10 business days of the end of each month) until the Final Air Pollution Control Equipment Monitoring Plan required in Table 8, Item 10. k.) is approved by the department	PCE01	RSA 125-C:10-e Env-A 810.01 & Env-A 910.01
	k.) *Final Air Pollution Control Equipment Monitoring Plan:* The owner or operator shall submit a final approvable Air Pollution Control Equipment Monitoring Plan to the department.	Received by the department no later than 60 days after completion of construction and installation of PCE01		
11.	<u>*Air Pollution Control Equipment Monitoring Plan*</u> If the owner or operator determines that the information and procedures documented in the air pollution control equipment monitoring plan submitted with Application #18-0227 and revised in accordance with Table 8, Item 10 need to be changed at any time to accurately represent the activities performed to maintain the control equipment, the owner or operator shall submit a revised monitoring or management plan, as applicable, to the department in writing.	Submit to the department within 30 days of any change to the plan	PCE01	Env-A 810.01(e)

Table 8 - Reporting Requirements				
Item #	**Requirement**	**Frequency**	**Applicable Emission Unit**	**Regulatory Basis**
12.	*NSPS Reporting Requirements* Submit to the department and U.S. EPA Region I, a report on the first semiannual estimate in which projected annual VOC use exceeds 95 Mg and report the first 12-month period in which the actual VOC use exceeds the applicable cutoff. The address for USEPA Region 1 is: Director, Enforcement and Compliance Assurance Division U.S. EPA Region I 5 Post Office Square Suite 100 (04–2) Boston, MA 02109–3912 Attn: Air Compliance Clerk The address for the department is: NH DES – Air Resources Division Attn: Compliance Measurement & Data Programs Manager PO Box 95 29 Hazen Drive Concord, NH 03301-0095	As required	EU01 – EU08 & EU11 – EU16	40 CFR 60.747(c) (Subpart VVV)

IX. Permit Deviation Reporting Requirements

A. Env-A 101, *Definitions*:

1. A *permit deviation* is any occurrence that results in an excursion from any emission limitation, operating condition, or work practice standard as specified in either a Title V permit, state permit to operate, temporary permit or general state permit issued by the department.

2. An *excess emission* is an air emission rate that exceeds any applicable emission limitation.

3. An *emission limitation* means "emission limitation" as defined in section 302(k) of the Act, namely "a requirement established by the State or the Administrator which limits the quantity, rate, or concentration of emissions of air pollutants on a continuous basis, including any requirement relating to the operation or maintenance of a source to assure continuous emission reduction and any design, equipment work practice or operational standard promulgated under this Act." This term includes "emission standard".

B. Env-A 911.04, *Reporting Requirements*: In the event of a permit deviation that causes excess emissions, or for pollution control equipment monitoring parameter excursions lasting more than 48 hours in duration:

1. Notify the department of the permit deviation and excess emissions by telephone (603-271-1370), fax (603-271-7053) or e-mail (pdeviations@des.nh.gov), within 24 hours of discovery of the permit deviation, unless it is a Saturday, Sunday, or state legal holiday, in which event, the department shall be notified on the next day which is not a Saturday, Sunday, or state legal holiday.

2. Submit a written report of the deviation on paper or by electronic means to the department within 10 days of discovery of the permit deviation reported above. The report shall include all of the following information:

    a. Facility name;
    b. Facility address;
    c. Name of the responsible official;
    d. Facility telephone number;
    e. A description of the permit deviation, including the applicable permit number and permit condition(s);
    f. The probable cause of the permit deviation;
    g. The date and time of the discovery of the permit deviation;
    h. The actual date(s) and time(s) of the permit deviation;
    i. The duration of the permit deviation, including the date and time that the device, process or air pollution control equipment returned to operation in compliance with an enforceable emission limitation or operating condition;
    j. The specific device, process or air pollution control equipment that contributed to the permit deviation;
    k. Any corrective measures taken to address the permit deviation;
    l. Preventative measures taken to prevent future permit deviations;
    m. The type and amount of excess emissions that occurred as a result of the permit deviation; and
    n. The calculation or estimation used to quantify the excess emissions.

X. Permit Amendments

A. Env-A 612.01, *Administrative Permit Amendments*:

1. An administrative permit amendment includes the following:
    a. Corrects typographical errors;
    b. Identifies a change in the name, address, or phone number of any person identified in the permit, or provides a similar minor administrative change at the source;
    c. Requires more frequent monitoring or reporting; or
    d. Allows for a change in ownership or operational control of a source provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittee has been submitted to the department.

2. The owner or operator may implement the changes addressed in the request for an administrative amendment immediately upon submittal of the request.

B. Env-A 612.03, *Minor Permit Amendments: Temporary Permits and State Permits to Operate*:

1. The owner or operator shall submit to the department a request for a minor permit amendment for any proposed change to any of the conditions contained in this permit which does not qualify as either an administrative or significant amendment.

2. The request for a minor permit amendment shall be in the form of a letter to the department and shall include the following:
    a. A description of the proposed change; and

b. A description of any new applicable requirements that will apply if the change occurs.

3. The owner or operator may implement the proposed change immediately upon filing a request for the minor permit amendment, but shall be subject to enforcement if the department later determines that the change violated any applicable state or federal requirement.

C. Env-A 612.04, *Significant Permit Amendments: Temporary Permits and State Permits to Operate*:

1. The owner or operator shall submit a written request for a permit amendment to the department prior to the implementation of any proposed change which meets one of the following:
   a. Any proposed change to an existing process or device that results in the following:
      i. Any increase in allowable hourly or annual emissions of NOx, SO_2, VOCs, HAPs or PM_{10}; or
      ii. Any increase in potential emissions equal to or greater than 5 lb/hr of CO;
   b. Any proposed change to operating or emission limitations;
   c. Any proposed change in the type of pollution control equipment; or
   d. Any proposed change that results in an increase in previously-allowed loading of existing pollution control equipment by greater than 50%.

2. A request for a significant permit amendment shall include the following:
   a. A complete application form, as described in Env-A 1703 through Env-A 1708, as applicable;
   b. A description of:
      i. The proposed change;
      ii. The emissions resulting from the change; and
      iii. Any new applicable requirements that will apply if the change occurs; and
   c. Where air pollution dispersion modeling is required for a device pursuant to Env-A 606.02, the information required pursuant to Env-A 606.04.
   d. An air pollution control equipment monitoring plan.

3. The owner or operator shall not implement the proposed change until the department issues the amended permit.

XI. Inspection and Entry

Department personnel shall be granted access to the facility covered by this permit, in accordance with RSA 125-C:6, VII for the purposes of inspecting the proposed or permitted site, investigating a complaint, and assuring compliance with any applicable requirement found in the New Hampshire Rules Governing the Control of Air Pollution and/or conditions of any permit issued pursuant to Chapter Env-A 600.

XII. Annual Emission Fee Requirements

A. Env-A 705.02, *Annual Emission Fee*: The owner or operator shall pay to the department each year an annual emission fee consisting of an emission-based fee calculated pursuant to Condition XII.C and a baseline emission fee stated in Condition XII.D. The owner or operator shall submit, to the department, payment of the annual emission fee so that the department receives it on or before May 15th for emissions during the previous calendar year. For example, the fees for calendar year 2019 shall be received on or before May 15, 2020.

B. Env-A 705.03, *Determination of Actual Emissions for use in Calculating of Emission-based Fee*: The owner or operator shall determine the total actual annual emissions from the emission units listed in Table 1 for each calendar year in accordance with the methods specified in Env-A 705.03.

C. Env-A 705.04, *Calculation of Emission-based Fee*: The owner or operator shall calculate the annual emission-based fee for each calendar year in accordance with the procedures specified in Env-A 705.04 and the following equation:

$$FEE = E * DPT$$

where:

FEE = The annual emission-based fee for each calendar year as specified in Env-A 705;
E = Total actual emissions as determined pursuant to Condition XII.B; and
DPT = The annual fee, in dollars per ton of emissions, which the department has calculated in accordance with Env-A 705.04[12].

D. Env-A 705.06, *Payment of Annual Baseline Emission Fee*: In addition to the annual emission-based fee, the owner or operator shall pay to the department each year an annual baseline emission fee of $5,250 pursuant to Env-A 705.07(a).[13]

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[12] For additional information on emission-based fees, visit the department website at https://www.des.nh.gov/organization/divisions/air/pehb/apps/fees.htm.

[13] Pursuant to Env-A 705.06(c), if the owner or operator is not required to pay an emission-based fee for any calendar year because the Facility had zero reportable emissions, the annual baseline fee shall be $500 in lieu of the fee stated in Condition XII.D.