



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION



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**Evonik Cyro LLC
York County
Sanford, Maine
A-393-71-V-R/M (SM)**

**Departmental
Findings of Fact and Order
Air Emission License
Renewal/Amendment**

FINDINGS OF FACT

After review of the air emissions license renewal application, staff investigation reports, and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., §344 and §590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

Evonik Cyro LLC (Evonik) has applied to renew their Air Emission License authorizing the operation of emission sources associated with their acrylic plastic resin and sheet products manufacturing facility at 1796 Main Street in Sanford, Maine. Evonik has also submitted an application requesting that the license be modified to include the option of firing either propane or natural gas in the Thermal Oxidizer.

B. Emission Equipment

The following equipment is addressed in this air emission license:

Table 1: Fuel Burning Units

Equipment	Maximum Capacity (MMBtu/hr)	Maximum Firing Rate	Fuel	Install. Date	Stack #
Giebel Boiler #1	12.7	12,451 scf/hr	Natural gas	2011	Giebel Boiler Stack
Heater #1	1.1	1078.4 scf/hr			--
Heater #2	1.1	1078.4 scf/hr			--
Heater #3	1.1	1078.4 scf/hr			--
Heater #4	1.6	1568.6 scf/hr			--
Hot Oil Heater	4.0	3922.0 scf/hr		1978	#19
Thermal Oxidizer	2.5	27.6 gal/hr	Propane	2002	#6
		2451.0 scf/hr	Natural gas		

Table 2: Generators

<u>Equipment</u>	<u>Maximum Capacity (MMBtu/hr)</u>	<u>Firing Rate (gal/hr)</u>	<u>Fuel Type, % sulfur</u>	<u>Manufacture Date</u>
Building #1 Generator	2.88	21.0	Diesel, 0.0015%	1996
Giebel Building Generator	3.14	22.9		1985
Fire Pump Generator	1.75	12.7		1986

Table 3: Process Equipment

<u>Equipment</u>	<u>Pollutants</u>	<u>Pollution Control Equipment</u>	<u>Stack</u>
<i>Giebel Building</i>			
Sheet Lines	VOC/HAP	2 Condensers followed by 2 Catalytic Oxidizers	Oxidizer 1 and Oxidizer 2
Post-Color PMMA Extruders			
KP Polymerization Process			
Acrylic Sheet Trimming	PM	Dust Collector	Giebel 3
Lamination Process	HAP	--	Lamination Line Stack
<i>Other</i>			
Wiped Film Evaporator	VOC/HAP	Vent Condenser	#3
Multi-Functional Coating	VOC/HAP	Thermal Oxidizer	#6
Laser Cutting Process	HAP	Carbon Adsorption	#7
Silo #7	PM	Baghouse	Silo #7

Table 4: Tanks

<u>Tank ID</u>	<u>Content</u>	<u>Size (gal)</u>
<i>HWF Facility Tanks</i>		
T-11	Waste from Manufacturing Process (before WFE) or Cleaned MMA (from WFE)	2,000
T-12		2,000
T-13		2,000
T-14		2,000
T-15		2,000
T-16		1,000
T-52	Condensate (Bulk Waste)	5,000
<i>Giebel Building Tanks</i>		
T-80	MMA	30,000
T-81	MMA	30,000
T-82	MA	12,000

C. Application Classification

The renewal/amendment application for Evonik does not include the installation of new or modified equipment and will increase emissions by less than 4 ton/year for each single pollutant and less than 8 ton/year for all pollutants combined. Therefore, the license is considered to be a renewal of currently licensed emission units and the modification a minor revision, and have been processed as such through *Major and Minor Source Air Emission License Regulations*, 06-096 CMR 115 (as amended). With the restriction of operating hours on the emergency generators, the facility-wide cap on emissions of volatile organic compounds and hazardous air pollutants, and corresponding operational limits and monitoring and recordkeeping requirements, the facility is licensed below the major source thresholds and is considered a synthetic minor.

II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

In order to receive a license, the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in *Definitions Regulation*, 06-096 CMR 100 (as amended). Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering

- the existing state of technology;
- the effectiveness of available alternatives for reducing emissions from the source being considered; and
- the economic feasibility for the type of establishment involved.

B. Facility Description

Evonik's manufacturing facility operates a continuous polymerization process where methyl methacrylate (MMA) is reacted to form a solid acrylic polymer pellet. Upon leaving the extruders and pelletizers, the pellet products are transferred to storage in either a bank of silos or to product boxes.

From the silos, the pellets may follow one of many paths: They may be shipped off-site as a final product to other sites, or they may be processed on one of the many continuous manufactured sheet (CMS) and post-color (PC) lines at the facility. The CMS and PC lines are also occasionally fed from pellets in product boxes instead of from the silos.

On the CMS lines, the acrylic pellets are melted and then forced through an orifice to create extruded acrylic sheet products. On the PC lines, the acrylic pellets are melted and pushed through small orifices and cut into colored pellets. The facility also operates boilers, heaters, and other fuel burning equipment and storage units in support of the manufacturing operations.

C. Giebel Boiler #1

Evonik operates Giebel Boiler #1 to supply steam heat to the facility. The boiler is rated at 12.7 MMBtu/hr firing natural gas at a rate of 12,451 standard cubic feet per hour (scf/hr). The boiler was installed in 2011 and exhausts through its own stack, the Giebel Boiler Stack.

1. NSPS 40 CFR Part 60, Subpart Dc

Due to its size and the year of installation, the boiler is subject to the New Source Performance Standards (NSPS) 40 CFR Part 60, Subpart Dc, *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*, for units greater than 10 MMBtu/hour but no greater than 100 MMBtu/hour manufactured after June 9, 1989. However, units firing natural gas are not subject to the standards, emission monitoring, or compliance and test methods and procedures requirements for PM and SO₂ of this Subpart. Subpart Dc requires the facility to record and maintain records of the amount of fuel combusted during each calendar month in any applicable steam generating unit which combusts only natural gas. [40 CFR Part 60, Subpart Dc §60.48c (g)(2)]

2. BACT/BPT Findings

The BACT/BPT emission limits for Giebel Boiler #1 were based on 12.7 MMBtu/hr, 1020 Btu/scf natural gas, and the following factors from EPA's AP-42 *Compilation of Air Pollutant Emission Factors*, as appropriate:

<u>Pollutant</u>	<u>Factor</u>	<u>Factor Source</u>	<u>Emission Limit, lb/hr</u>
PM, PM ₁₀	0.05 lb/MMBtu	06-096 CMR 115, BACT/BPT	0.64
SO ₂	0.6 lb/10 ⁶ scf	AP-42, Table 1.4-1 (dated 2/98)	0.01
NO _x	100 lb/10 ⁶ scf		1.25
CO	84 lb/10 ⁶ scf		1.05
VOC	5.5 lb/10 ⁶ scf		0.07

Visible emissions from the Giebel Boiler Stack shall not exceed 10% opacity on a six-minute block average basis, except for no more than one six-minute block average in a three-hour period. [06-096 CMR 101, BACT/BPT]

3. Periodic Monitoring

Periodic monitoring for the boiler shall include recordkeeping to document fuel use on both a monthly and a 12-month rolling total basis.

D. Hot Oil Heater

The Hot Oil Heater heats a synthetic heat transfer fluid, which is then used in jacketed tubing to heat polymer material as part of the manufacturing process. Evonik is licensed to burn natural gas in the Hot Oil Heater at a heat input capacity of 4.0 MMBtu/hr for 8760 hours per year. The Hot Oil Heater was installed in 1978 and exhausts through its own 44 ft. above ground level (AGL) stack, Stack #19. In 2012, this heater was converted from firing #2 fuel oil to firing natural gas and underwent BACT analysis at that time.

BACT/BPT Findings

The BACT/BPT emission limits given below for the Hot Oil Heater are based on the following factors, 4.0 MMBtu/hr, and 1020 Btu/scf natural gas:

<u>Pollutant</u>	<u>Factor</u>	<u>Factor Source</u>	<u>Emission Limit, lb/hr</u>
PM, PM ₁₀	0.02 lb/MMBtu	06-096 CMR 115, BACT	0.08
SO ₂	0.6 lb/10 ⁶ scf	AP-42, Table 1.4-1 (dated 2/98)	0.002
NO _x	100 lb/10 ⁶ scf		0.39
CO	84 lb/10 ⁶ scf		0.33
VOC	5.5 lb/10 ⁶ scf		0.02

Visible emissions from the Hot Oil Heater shall not exceed 10% opacity on a six-minute block average basis, except for no more than one six-minute block average in a three-hour period. [06-096 CMR 101, BACT/BPT]

E. NESHAP, 40 CFR Part 63, Subpart JJJJJ

Giebel Boiler #1 and the Hot Oil Heater are existing industrial boilers, as defined in 40 CFR §63.11237, that are located at or are part of an area source of HAP, as defined in §63.2. As such, these units are not subject to the *National Emission Standards for Hazardous Air Pollutants [NESHAP] for Industrial, Commercial, and Institutional Boilers Area Sources*, 40 CFR Part 63, Subpart JJJJJ. [40 CFR § 63.11195 (e)]

F. Heaters #1, #2, #3, and #4

Evonik operates Heaters #1, #2, #3, and #4 to heat production and warehouse areas. Heaters #1, #2, and #3 are each rated at 1.1 MMBtu/hour, and Heater #4 is rated at 1.6 MMBtu/hr. All four heaters, manufactured in 2010 and installed in 2011, are direct fired heaters that fire natural gas.

1. BACT/BPT Findings

The BACT/BPT emission limits for Heaters #1, #2, #3, and #4 were based on 1.1 MMBtu/hr for Heaters #1, #2, and #3, 1.6 MMBtu/hr for Heater #4, 1020 Btu/scf natural gas, and the following factors:

PM, PM₁₀ – 0.05 lb/MMBtu, 06-096 CMR 115, BPT
SO₂ – 0.6 lb/10⁶ scf, AP-42, Table 1.4-1 (dated 2/98)
NO_x – 100 lb/10⁶ scf, AP-42, Table 1.4-1 (dated 2/98)
CO – 84 lb/10⁶ scf, AP-42, Table 1.4-1 (dated 2/98)
VOC – 5.5 lb/10⁶ scf, AP-42, Table 1.4-1 (dated 2/98)

Emission limits from Heaters #1, #2, #3, and #4 are the following:

<u>Unit</u>	<u>PM (lb/hr)</u>	<u>PM₁₀ (lb/hr)</u>	<u>SO₂ (lb/hr)</u>	<u>NO_x (lb/hr)</u>	<u>CO (lb/hr)</u>	<u>VOC (lb/hr)</u>
Heater #1 1.1 MMBtu/hr, natural gas	0.06	0.06	0.001	0.11	0.09	0.01
Heater #2 1.1 MMBtu/hr, natural gas	0.06	0.06	0.001	0.11	0.09	0.01
Heater #3 1.1 MMBtu/hr, natural gas	0.06	0.06	0.001	0.11	0.09	0.01
Heater #4 1.6 MMBtu/hr, natural gas	0.08	0.08	0.001	0.16	0.13	0.01

Heaters #1, #2, #3, and #4 all vent indoors and are thus not subject to opacity standards.

2. Periodic Monitoring

Periodic monitoring for Heaters #1, #2, #3, and #4 shall include recordkeeping to document combined fuel use for these four heaters on both a monthly and a 12-month rolling total basis.

G. Thermal Oxidizer

Evonik operates a Thermal Oxidizer as a control device for VOC emissions from the Multi-Functional Coating Line. The Thermal Oxidizer has a maximum input capacity of 2.5 MMBtu/hr firing 27.6 gal/hr of propane. The Thermal Oxidizer exhausts through Stack #6.

Evonik wishes to add natural gas as a licensed fuel option for the Thermal Oxidizer. Due to the size of this fuel burning unit and the comparable quantities of resulting emissions from both fuels, the Department finds that firing either propane or natural gas in the Thermal Oxidizer meets BACT/BPT requirements.

The facility shall be licensed to fire either propane, at a maximum fuel firing rate of 27.6 gal/hour, or natural gas, at a heat input equivalent fuel firing rate of 2451 scf/hour, in the Thermal Oxidizer, subject to the following emission rates:

<u>Pollutant</u>	<u>Factor</u>	<u>Factor Source</u>	<u>Emission Limit, lb/hr</u>
PM, PM ₁₀	0.02 lb/MMBtu	06-096 CMR 115, BACT/BPT	0.05
SO ₂	0.6 lb/10 ⁶ scf	AP-42, Table 1.4-1 (dated 2/98) for natural gas (scf);	0.001
	2 lb/10 ³ gal		0.06
NO _x	100 lb/10 ⁶ scf		0.25
	13 lb/10 ³ gal		
CO	84 lb/10 ⁶ scf	AP-42, Table 1.5-1 (dated 7/08) for propane (gal)	0.21
	7.5 lb/10 ³ gal		
VOC	5.5 lb/10 ⁶ scf		0.01
	1.0 lb/10 ³ gal		0.05

Visible emissions from the Thermal Oxidizer shall not exceed 10% opacity on a six-minute block average basis, except for no more than one six-minute block average in a three-hour period. [06-096 CMR 101, BACT/BPT]

H. Emergency Generators

Evonik operates three emergency generators, Building #1 Generator, Giebel Building Generator, and Fire Pump Generator. The emergency generators are rated at 2.88 MMBtu/hr (260 kW, 350 HP), 3.14 MMBtu/hr (300 kW, 400 HP), and 1.75 MMBtu/hr (180 kW, 240 HP), respectively. All three emergency generators fire diesel fuel with a maximum sulfur content of 0.0015% by weight. The generators were manufactured in 1996, 1985, and 1986, respectively.

1. NSPS

Due to the dates that Building #1 Generator, Giebel Building Generator, and Fire Pump Generator were manufactured, the three emergency generators are not subject to 40 CFR Part 60, Subpart IIII, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines*.

2. BACT/BPT Findings

The BPT emission limits for Building #1 Generator (2.88 MMBtu/hour), Giebel Building Generator (3.14 MMBtu/hour), and Fire Pump Generator (1.75 MMBtu/hour) are based on the following factors:

<u>Pollutant</u>	<u>Factor</u>	<u>Origin</u>	<u>Unit</u>
PM, PM ₁₀	0.12 lb/MMBtu	06-096 CMR 103	Giebel Building Generator
		As previously licensed, BPT	Building #1 Generator Fire Pump Generator

<u>Pollutant</u>	<u>Factor</u>	<u>Origin</u>	<u>Unit</u>
SO ₂	0.0015 lb/MMBtu	Fuel sulfur content 0.0015% by wt.	Giebel Building Generator Building #1 Generator Fire Pump Generator
NO _x	4.41 lb/MMBtu	AP-42, Table 3.3-1 (dated 10/96)	Giebel Building Generator Building #1 Generator Fire Pump Generator
CO	0.95 lb/MMBtu		
VOC	0.36 lb/MMBtu		
Opacity	--	06-096 CMR 101 (dated 5/03)	

The BPT emission limits for Building #1 Generator, Giebel Building Generator, and Fire Pump Generator are the following:

<u>Unit</u>	<u>PM (lb/hr)</u>	<u>PM₁₀ (lb/hr)</u>	<u>SO₂ (lb/hr)</u>	<u>NO_x (lb/hr)</u>	<u>CO (lb/hr)</u>	<u>VOC (lb/hr)</u>
Building #1 Generator 2.88 MMBtu/hr, Diesel	0.35	0.35	0.004	12.70	2.74	1.04
Giebel Building Generator 3.14 MMBtu/hr, Diesel	0.38	0.38	0.005	13.85	3.00	1.13
Fire Pump Generator 1.75 MMBtu/hr, Diesel	0.21	0.21	0.003	7.72	1.66	0.63

Visible emissions from each of the diesel emergency generators shall not exceed 20% opacity on a six-minute block average, except for no more than two six-minute block averages in a three-hour period.

The emergency generators shall each be limited to 500 hr/yr of operation based on a 12-month rolling total. A non-resettable hour meter shall be operated on each generator, and a written log shall be kept for each generator to document compliance with this limit.

3. NESHAP

The federal regulation 40 CFR Part 63, Subpart ZZZZ, *National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines* is applicable to the emergency generators listed above. The units are considered existing, emergency, stationary, reciprocating, internal combustion engines at an area HAP source and are not subject to NSPS regulations. EPA's August 9, 2010, memo (*Guidance Regarding Definition of Residential, Commercial, and Institutional Emergency Stationary RICE in the NESHAP for Stationary RICE*) specifically does not exempt these units from the federal requirements.

Emergency Definition:

Emergency stationary reciprocating internal combustion engine (RICE) means any RICE that meets all of the following criteria:

- (1) The stationary RICE is operated to provide electrical power or mechanical work during an emergency situation. Examples include stationary RICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary RICE used to pump water in the case of fire or flood, etc.
- (2) Paragraph (1) above notwithstanding, the emergency stationary RICE may be operated for any combination of the purposes specified below for a maximum of 100 hours per calendar year:
 - (i) Maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. 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 RICE beyond 100 hours per calendar year.
 - (ii) Emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see §63.14), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.
 - (iii) Periods where there is a deviation of voltage or frequency of five percent or greater below standard voltage or frequency.
- (3) Paragraphs (1) and (2) above notwithstanding, emergency stationary RICE may be operated for up to 50 hours per calendar year in non-emergency situations. These 50 hours are counted as part of the 100 hours per calendar year for maintenance checks and readiness testing, emergency demand response, and periods of voltage deviation or low frequency, as provided in paragraph (2) above.

The 50 hours per calendar year for non-emergency situations cannot be used for peak shaving, non-emergency demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity, except provided in the following paragraphs:

- (i) Prior to May 3, 2014, the 50 hours per year for non-emergency situations can be used for peak shaving or non-emergency demand response to generate income for a facility, or to otherwise supply power as part of a financial arrangement with another entity if the engine is operated as part of a peak shaving (load management program) with the local distribution system operator and the power is provided only to the facility itself or to support the local distribution center.
- (ii) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:
 - a. The engine is dispatched by the local balancing authority or local transmission and distribution system operator.
 - b. The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.
 - c. The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.
 - d. The power is provided only to the facility itself or to support the local transmission and distribution system.
 - e. The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

40 CFR Part 63, Subpart ZZZZ Requirements and Compliance Dates [(40 CFR §63.6603(a) and Table 2(d))]:

Unit	Date	Operating Limitations*	
		Requirement	Frequency
Building #1 Generator	No later than May 3, 2013	Change oil and filter	every 500 hours of operation or annually, whichever comes first;
Giebel Building Generator		Inspect the air cleaner	every 1000 hours of operation or annually, whichever comes first;
Fire Pump Generator		Inspect all hoses and belts	every 500 hours of operation or annually, whichever comes first, and replace as necessary

* Note: Due to the 500 hour operation limit on each generator, the requirements specified above shall be performed annually to meet the requirements of Subpart ZZZZ.

The generators shall be operated and maintained according to the manufacturer's emission related written instructions, or Evonik shall develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engines in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR §63.6625(e)]

A non-resettable hour meter shall be installed and operated on each generator. [40 CFR §63.6625(f)]

During periods of startup the facility must minimize the engine's time spent at idle and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR §63.6625(h) & 40 CFR Part 63, Subpart ZZZZ Table 2d]

The generators shall each be limited to 100 hours/year for maintenance checks and readiness testing, emergency demand response, and periods of voltage or frequency deviation from standards. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not include peak shaving, non-emergency demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity unless the conditions in §63.6640(f)(4)(ii) are met). [40 CFR §63.6640(f)]

Evonik shall keep records that include maintenance conducted on the three generators and the hours of operation of each engine recorded through the non-resettable hour meter. Documentation shall include the hours spent for emergency operation, including what classified the operation as emergency and how many hours spent for non-emergency. If the generators are operated during a period of demand response or deviation from standard voltage or frequency, or supplying power during a non-emergency situation as part of a financial arrangement with another entity as specified in §63.6640(f)(4)(ii), Evonik must keep records of the notification of the emergency situation, and the date, start time, and end time of generator operation for these purposes. [40 CFR §63.6655(e) and (f)]

I. Process Sources

Particulate Matter from Material Handling

Air-borne particulate matter emissions from storage, conveyance, and handling of pelletized and reground material throughout the manufacturing process are controlled through venting of storage and conveyor equipment through a fabric filter, which exhausts inside the building. Additionally, "conveying and storage of plastic pellets" is identified as an insignificant activity according to 06-096 CMR 115, Appendix B (47). No opacity or other emission limits are appropriate for the materials handling process.

There is one silo, Silo #7, which is equipped with a bin vent filter which exhausts outside of the building. This unit was installed in 1989 with polyester felt filter bags to control dust arising from pneumatic conveyance of acrylic pellets.

Visible emissions from the bin vent filter on Silo #7 shall not exceed 20% opacity on a six-minute block average basis except for no more than one six-minute block average in a one-hour period. Evonik shall keep records of all baghouse maintenance.

VOC/HAPs Emissions from Process Sources

Sources of VOC and/or HAP air emissions from this facility are grouped below by the identity of the VOC/HAP being emitted.

- Emissions from several manufacturing process components in the Giebel Building, the Wiped Film Evaporator, and the Laser Cutting Process include methyl acrylate (MA) and methyl methacrylate (MMA), both of which are major components in the acrylic manufacturing process and which are VOCs. MMA is also classified as a HAP pursuant to Section 112(b) of the Clean Air Act (CAA).
- Emissions from the Lamination Process contain methylene chloride, which is not a VOC but is a HAP.
- Emissions from the Multi-Functional Coating Line may include methyl ethyl ketone (MEK) and/or n-butanol, each of which is a VOC but not a HAP, and methanol, which is both a VOC and a HAP.

All materials containing VOC and/or HAP are accounted for in the facility's established inventory and reporting process for these two pollutant categories. A summary of the specific VOC/HAP emissions and the process sources from which each of these pollutants is released are presented in the following table.

<u>Pollutant</u>	<u>VOC</u>	<u>HAP</u>	<u>Process Source</u>
Methyl acrylate (MA)	√		Giebel Building Sources
Methyl methacrylate (MMA)	√	√	Wiped Film Evaporator Laser Cutting Process
Methylene chloride		√	Lamination Process
Methyl ethyl ketone (MEK)	√		Multi-Functional Coating Line
Methanol	√	√	
n-Butanol	√		

According to EPA guidance entitled "Guidance on Limiting Potential to Emit in New Source Permitting" dated June 13, 1989, and referenced in a letter from EPA to the Department pertaining to this source dated September 19, 2012, specific limits have been included for Evonik's process sources in the following sections. Per EPA guidance, a blanket restriction on actual emissions, such as an emission

limit in tons/year, is neither federally enforceable nor enforceable as a practical matter as a restriction on a source's potential to emit. For Evonik's designation as a synthetic minor source to be appropriately documented, the facility's potential to emit (PTE) must be limited by emission, production, and/or operational limits which are both federally enforceable and enforceable as a practical matter. Those limits and corresponding monitoring and recordkeeping requirements are specified in the following subsections for each process source.

1. Giebel Building Process Sources

Giebel Building VOC and HAPs emissions sources include the following:

- (a) Polymerized MMA (PMMA) Extruding Sheet Lines (*MA and MMA Emissions*);
- (b) Post-Color PMMA Extruders (*MA and MMA Emissions*);
- (c) KP Polymerization Process (converting MMA and MA into PMMA) (*MA and MMA Emissions*); and
- (d) Lamination Process (*Methylene Chloride Emissions*).

BPT for VOC and HAP emissions from these sources includes the routing and balancing of emissions from the Extruding Sheet Lines, the Post Color Process, and the KP Polymerization Process, through two condensers followed by two catalytic oxidizers for VOC and HAP destruction. The combined condensers and catalytic oxidizers achieve a minimum VOC/HAP destruction control efficiency of 95%. The resulting emissions exhaust through the Catalytic Oxidizer Stacks #1 and #2.

Parameter monitoring requirements for the catalytic oxidizers are based on the licensing restrictions for other, similar facilities within the United States and the requirements found in 40 CFR Part 63, Subpart G, *National Emission Standards for Organic Hazardous Air Pollutants From the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater*. Although Evonik is not subject to 40 CFR Part 63, Subpart G, exhaust streams from the catalytic oxidizers are process vents from emissions controlled with technology similar to that described in Subpart G. Subpart G (1)(ii) requires that where a catalytic incinerator is used, parameter monitoring shall consist of temperature monitoring devices installed and operated in the gas stream immediately before and after the catalyst bed.

Applying these constraints to Evonik's technology results in the following requirements: When any of the units whose emissions are controlled by the catalytic oxidizers are in operation, Evonik shall continuously monitor and record the inlet and outlet temperatures across the catalyst beds and take corrective action, such as adding heat to maintain the minimum 450°F temperature, if temperatures are outside of the range between 450°F and 1000°F, the manufacturer-recommended temperature range for VOC/HAP

destruction. For this usage, *continuously* shall be defined as a minimum of three data points in a one-hour period.

Within five years from the date of issuance of this license, and upon request thereafter or whenever a significant production change occurs which is not within the original production capacity of the facility such that emissions are expected to be notably different, Evonik shall conduct stack testing on the exhaust from the catalytic oxidizers to confirm at least 95% control efficiency of VOC and HAP. The facility shall then operate using the temperature range and operating configuration(s) at which the most recently completed stack testing demonstrates this minimum control efficiency. Catalytic Oxidizer temperature shall be continuously monitored and recorded to verify conditions sufficient for this level of control. Based on historical production and emissions data, the total combined emissions from Catalytic Oxidizer Stacks #1 and #2 shall not exceed the following: 1.5 tons per month of MMA and 0.2 tons per month of MA.

Evonik shall continue operational practices to minimize VOC and HAP emissions and monitoring practices to document monthly emissions from Giebel Building process sources, including conducting monthly and quarterly exhaust monitoring of air velocity, temperature, and MMA and MA concentrations in the Catalytic Oxidizers' exhaust; and run time hours.

By the 21st of every month and using the most recently recorded monthly and quarterly vent monitoring of the air velocity, temperature, MMA ppm, MA ppm, and run time hours, Evonik shall calculate the average daily emissions of MMA and of MA from Catalytic Oxidizer Stacks #1 and #2 for the previous month.

Control of VOC emissions from the Giebel Building using condensers and catalytic oxidizers within the temperature documented by stack testing to achieve at least 95% destruction efficiency meets VOC RACT requirements of 06-096 CMR 134.

PM emissions from Giebel Building production areas are generated by saws and grinders associated with flat sheet extrusion. Evonik operates a baghouse-type dust collector that collects these emissions. BPT for particulate matter emissions shall be the use of dust collectors and limiting visible emissions from the dust collectors to no more than 5% opacity on a six-minute block average except for one six-minute block in a continuous one-hour period.

Lamination Process (Methylene Chloride Emissions)

The facility operates an additional process in the Giebel Building which is not controlled by the condensers and catalytic oxidizers with the processes discussed above. A Lamination Process uses methylene chloride to adhere film to the manufactured acrylic sheets to modify the properties of the

product. Methylene chloride is encapsulated in the solid product and does not include or require any operation to remove HAP solvent or residual monomer from the solid. Maximum emissions were estimated and established in air emission license amendment A-393-71-W-A (SM) issued October 29, 2008, based on projected production estimates. Actual production records now provide more accurate data which justifies correcting the methylene chloride emission limit from the Lamination Process to 6.5 tons/year.

The Best Available Control Technology (BACT) analysis conducted before the Lamination Process was installed determined that venting of emissions from the Lamination Process through the catalytic converter would not effectively control potential methylene chloride emissions. The BACT analysis also concluded that other technologically feasible controls were prohibitively expensive; thus, there were currently no economically feasible control methods for the Lamination Process. Evonik has since provided to the Department annual reports evaluating potential new control methods for this process, but no additional control methods meeting BACT requirements have been identified to date. Evonik has and continues to optimize the lamination process to reduce methylene chloride use and resulting emissions to the lowest level possible, with the goal of developing a process that will not require the use of this compound or any other VOC or HAP to laminate the materials.

Quarterly vent monitoring of air velocity, temperature, and methylene chloride concentration (ppm) at the production line, and monthly lamination line run time hours are used to calculate monthly methylene chloride emissions. These emissions continue to be well below the identified limit.

The methylene chloride meter, a portable photoionization monitor, is calibrated according to the manufacturer's specifications prior to each use of the meter to ensure accuracy of quarterly monitoring data.

By the 21st of each calendar month and using the most recent monthly and quarterly data, Evonik shall calculate the average daily emissions of methylene chloride from the Lamination Process for the previous month.

To meet BPT requirements, Evonik shall continue to monitor and record quarterly vent monitoring of air velocity, temperature, methylene chloride concentration at the production line, and monthly lamination line run time hours to monthly calculate average daily methylene chloride emissions and document compliance with the emission limit of 6.5 tons/year. The facility shall also continue to use best management practices to minimize emissions of methylene chloride from the Lamination Process.

The above monitoring requirements notwithstanding, for any quarter during which the Lamination Process is not operated, documentation that the process was not operated will suffice in place of monitoring data.

On February 26, 2010, Evonik submitted an Initial Notification of Applicability as required by 40 CFR Part 63, Subpart VVVVVV, *National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Chemical Manufacturing*, while reserving the right to rescind the notification upon final applicability determination. On July 20, 2010, Evonik notified U.S. EPA via letter of their determination that no part or parts of the facility are subject to Subpart VVVVVV, with the justification as summarized below.

- (a) According to the applicability criteria provided in 40 CFR §63.11494(a), this Subpart applies to a chemical manufacturing process unit (CMPU) at an area source of HAP emissions which uses as feedstock any of the HAP listed in Table 1 of this Subpart.
- (b) According to 40 CFR §63.11494(b), a CMPU under this Subpart includes process vessels, equipment, and activities necessary to operate a chemical manufacturing process that produces a material or a family of materials described by North American Industry Classification System (NAICS) code 325.
- (c) The definition of a chemical manufacturing process under Section 63.11502 specifies “all equipment which collectively functions to produce a product or isolated intermediate.” EPA defined “isolated intermediate” under a separate rulemaking at 40 CFR §63.2550 as follows: “Isolated intermediate means a product of a process that is stored before subsequent processing. ... Storage of an isolated intermediate marks the end of a process.”
- (d) Because the acrylic polymer pellets leaving the KP Process are stored in silos and product boxes for multiple possible uses, including sale offsite as a final product and intermediate storage prior to use in the continuous manufactured sheet (CMS) process, that storage marks the end of the KP Process.
- (e) Thus, the KP Process and the Lamination Process are two separate processes. The KP Process is identified under NAICS code 325, but it uses no Table 1 HAP. The Lamination Process does include a Table 1 HAP, but this process is identified under NAICS code 326.
- (f) Therefore, 40 CFR Part 63, Subpart VVVVVV does not apply to any component of this manufacturing facility.

2. Wiped Film Evaporator (MA and MMA Emissions)

Evonik operates a Wiped Film Evaporator (WFE) process to reclaim MMA for reuse in the polymerization process. Waste from the KP Polymerization procedure is processed through the WFE to reclaim approximately 85% of the material for reuse. Installed in November 2011, the facility uses an “Xchanger” water-cooled vent condenser to control WFE VOC and HAP emissions. This system exhausts through Stack #3.

Based on the manufacturer's specifications or as otherwise established by the manufacturer, Evonik operates the Wiped Film Evaporator's condenser such that the outlet vapor temperature is at least 5°F greater than the inlet water temperature. Current experience identifies an optimum vapor exit temperature of less than or equal to 65 °F for maximum reclamation of MMA for reuse in the process. If operational experience shows that the 65 °F parameter is not attainable (which is possible because of the use of city water as the coolant, which has an incoming temperature higher than water from a well or underground cistern), operation shall default to the manufacturer's specifications of the 5°F difference between incoming cooling water and exiting vapor temperature.

The Department determined in 2011 that the use of a vent condenser satisfies BACT for the control of VOC and HAP emissions from the WFE system, with estimated emissions from the WFE of 1.6 tons/year of MA and MMA. Evonik shall maintain weekly records of the condenser jacket inlet water flow, the condenser jacket water temperature, and the outlet vapor temperature to monitor effective operation of the unit.

Quarterly testing of the exhaust from Stack #3 to determine ppm of MA and MMA in the exhaust stream, air velocity, and temperature, and monthly WFE run time hours are used to calculate monthly MA and MMA emissions from the process, after controls, on a monthly and a 12-month rolling total basis.

Sample collection and analysis equipment utilized in the WFE emissions quarterly testing is calibrated according to the manufacturer's specifications and applicable laboratory quality control procedures.

3. Multi-Functional Coating Line (MEK, Methanol, and n-Butanol Emissions)
In Evonik's Multi-Functional Coating Line, coating is applied to acrylic sheet to enhance the product for various applications. The coating material adheres to the product as part of the finish, drips off and is recycled, or vaporizes. To capture the vapors, the coating line is contained in a negative pressure total enclosure. All emissions from the total enclosure are continually vented to the Thermal Oxidizer. Following the oxidation process, the resultant gas stream is exhausted through a 10.5" diameter stack, Stack #6.

BPT for the Multi-Functional Coating Facility is the use of a Thermal Oxidizer to control VOC emissions. Evonik shall maintain a Thermal Oxidizer bed temperature of at least 1500°F or the temperature at which the most recently completed stack testing demonstrates a minimum VOC destruction efficiency of 98%. Thermal Oxidizer bed temperature shall be continuously monitored and recorded to verify conditions sufficient for this level of control of VOC emissions.

BPT shall also include monthly recordkeeping indicating the amount of coatings used and the VOC and HAP content, identity, and percentage of the

coatings. These records, along with stack test results confirming at least 98% destruction of VOC and HAP, shall be used to calculate actual emissions, both on a monthly and a 12-month rolling total basis and to document compliance with requirements for the Thermal Oxidizer. Emissions from the Thermal Oxidizer shall not exceed 7.2 tons/year of MEK and methanol. [06-096 CMR 115, BPT]

Control of VOC emissions from the Multi-Functional Coating Facility as described and with the above emission limit meets the VOC RACT requirements of 06-096 CMR 134.

4. Laser Cutting Process (MMA Emissions)

Evonik utilizes Laser Cutting Process for some acrylic sheets, the cutting of which emits small amounts of MMA. Using measurements, material throughput, and other factors, Evonik has calculated that this process draws an average of 40 lbs/month of MMA into the ventilation system, which captures the emissions and transports them to a carbon bed for MMA removal. Even before being subject to the carbon bed control, emissions from this unit are less than one ton/year; therefore, this unit is an insignificant source as defined in 06-096 CMR 115 Appendix B (B)(1) and is not required by Maine rules to be included in this license.

However, federal regulations require the inclusion of every source of VOC and HAPs in the demonstration of compliance with facility-wide emission limits. Thus, Evonik shall include estimated emissions from Laser Cutting, based on the following, in the documentation of compliance with the facility-wide VOC and HAP emission limits:

- carbon bed manufacturer's rated control efficiency for the carbon bed; and
- Evonik's monthly testing for MMA concentrations in the carbon bed exhaust.

Note: Testing results for MMA from the carbon bed consistently show no detectable levels of MMA; Evonik's standard practice is to replace the carbon bed at such time that MMA above 0.5 ppm is detected in the carbon bed exhaust (except for the rare occasion upon which a new carbon bed shows a small concentration of emissions upon installation, well below 1 ppm).

Evonik shall document monthly testing results, carbon bed maintenance and replacement, and relevant carbon bed operational variations, as appropriate. Upon detection of carbon bed breakthrough, Evonik shall replace the carbon bed within a reasonable timeframe for carbon bed replacement, not to exceed three months from the date of detected breakthrough.

Total MMA emissions from this process shall not exceed one ton/year.

J. Parts Washers

Evonik utilizes parts washers at the facility which are subject to *Solvent Cleaners*, 06-096 CMR 130 (as amended). Records shall be kept to document compliance.

K. Fugitive VOC/HAP Emissions

Storage tanks, as listed in Table 4 of section I(B) of this license, and associated piping may potentially emit VOC/HAP vapors through active and passive losses. Active losses refer to the emissions of vapors from the tank headspace during tank filling, as vapors are displaced from the headspace by liquid filling the tank. Active losses can typically be minimized through the use of vapor balance systems, which transfer the displaced vapors back to the supply tank. The storage tanks at Evonik use vapor balance systems where appropriate, such as during bulk delivery of product from tank trucks to the large storage tanks.

Passive losses refer to the emissions from an idle tank due to evaporation, based on the vapor pressure of the liquid at the actual product temperature. Evonik minimizes passive losses by ensuring that all tanks and fittings remain vapor tight and equipping the tank vents with weighted or spring-loaded pressure/vacuum (PV) vents. The PV vents are set beyond the normal working vapor pressure of the liquid, which minimizes passive losses.

A third potential source of fugitive emissions is through vapor or liquid leaks. Evonik has a comprehensive program of inspections, including using a portable VOC detector, to identify leaks and correct them, if found. Typical fugitive emission sources include valves, seals, pumps, and flanges.

BPT shall include the following operating and maintenance procedures for facility wide fugitive VOC/HAP emissions:

- Maintain all tanks and associated piping to prevent liquid and vapor leaks;
- Use only closed-loop vapor balance systems, where appropriate, and weighted PV relief valves, as appropriate, to minimize tank losses through evaporation and to minimize the chance of spills;
- Conduct routine leak inspections, and take prompt corrective action as necessary to minimize emissions; and
- Keep all VOC/HAP containers covered when not in immediate use.

L. VOC RACT

Because Evonik has the potential to emit more than 40 tons/year of VOC, the facility is subject to 06-096 CMR 134, *Reasonably Available Control Technology for Facilities that Emit Volatile Organic Compounds (VOC-RACT)*. Evonik shall control VOC emissions such that the total facility VOC emissions do not exceed, on a daily basis, 15% of the uncontrolled daily VOC emissions [06-096 CMR 134

(3)(A)(1)]. The following summarizes the controls and recordkeeping required by VOC RACT:

1. Evonik shall operate the following:
 - (a) a vent condenser to control the VOC emissions resulting from the operation of the WFE system;
 - (b) two catalytic oxidizers to capture and control VOC emissions from Giebel Building process sources;
 - (c) a Thermal Oxidizer to control VOC emissions from the Multi-Functional Coating Facility.
2. Evonik shall maintain monthly records of the pounds per month of emissions from all condensers inlets, oxidizer inlets, and oxidizer outlets; and percent of VOC destruction achieved in the following units:
 - (a) catalytic oxidizers, based on monthly vent monitoring of MMA and MA concentrations in the exhaust, air velocity, temperature, and run time hours; and the
 - (b) Thermal Oxidizer, using the information and procedure described above in Section II (H)(4) of the Findings of Fact of this License.
3. Evonik shall maintain weekly records of quantities and VOC/HAP concentrations of condensate collected in the WFE vent condenser.
4. For facility VOC and HAP emissions tracking, fuel use at the facility shall be based on fuel supplier records or data from fuel flow meters, determined monthly and on a 12-month rolling total basis.
5. Evonik shall maintain monthly records of all VOC emissions from all uncontrolled process storage tanks, calculated using EPA's TANKS program.
6. Evonik shall, by the 21st of each succeeding month, calculate and record the daily total facility wide VOC emissions. Records shall indicate on a daily basis the percent control efficiency for VOC, the control equipment utilized, and all occasions when equipment from which emissions originate was operating but the associated control equipment (WFE vent condenser, catalytic oxidizers, or Thermal Oxidizer) was not concurrently operating.

M. Annual Emissions

1. Licensed Annual Emissions

Evonik shall be restricted to the following annual emissions, based on a 12-month rolling total. The tons per year limits were calculated based on 500 hours/year of operation for each generator and 8760 hours/year for all other fuel burning units and all process sources. For the Thermal Oxidizer, the

worst case lb/hour emissions values were used to calculate the tons/year values.

Total Licensed Annual Emissions for the Facility
Tons/year

(all except PM₁₀, CO, and HAP used to calculate the annual license fee)

<u>Unit</u>	<u>PM</u>	<u>PM₁₀</u>	<u>SO₂</u>	<u>NO_x</u>	<u>CO</u>	<u>VOC</u>	<u>Single HAP</u>	<u>Total HAP</u>
Giebel Boiler #1	2.8	2.8	0.04	5.5	4.6	0.3	--	--
Heater #1	0.2	0.2	0.003	0.5	0.4	0.03	--	--
Heater #2	0.2	0.2	0.003	0.5	0.4	0.03	--	--
Heater #3	0.2	0.2	0.003	0.5	0.4	0.03	--	--
Heater #4	0.4	0.4	0.004	0.7	0.6	0.04	--	--
Hot Oil Heater	0.4	0.4	0.01	1.7	1.4	0.1	--	--
Thermal Oxidizer	0.2	0.2	0.24	1.6	0.9	0.2	--	--
Building #1 Generator	0.1	0.1	0.001	3.2	0.7	0.3	--	--
Giebel Building Generator	0.1	0.1	0.001	3.5	0.8	0.3	--	--
Fire Pump Generator	0.1	0.1	0.001	1.9	0.4	0.2	--	--
Process Emissions	--	--	--	--	--	38.4	9.99	24.9
Total TPY	4.7	4.7	0.3	19.6	10.6	39.9	9.99	24.9

2. Greenhouse Gases

Greenhouse gases are considered regulated pollutants as of January 2, 2011, through 'Tailoring' revisions made to EPA's *Approval and Promulgation of Implementation Plans*, 40 CFR Part 52, Subpart A, §52.21 Prevention of Significant Deterioration of Air Quality rule. Greenhouse gases, as defined in 06-096 CMR 100 (as amended), are the aggregate group of the following gases: carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. For licensing purposes, greenhouse gases (GHG) are calculated and reported as carbon dioxide equivalents (CO₂e).

Based on the facility's operational caps, the worst case emission factors from AP-42, IPCC (Intergovernmental Panel on Climate Change), and *Mandatory Greenhouse Gas Reporting*, 40 CFR Part 98, and the global warming potentials contained in 40 CFR Part 98, Evonik is below the major source threshold of 100,000 tons of CO₂e per year. Therefore, no additional licensing requirements are needed to address GHG emissions at this time.

III. AMBIENT AIR QUALITY ANALYSIS

According to 06-096 CMR 115, the level of air quality analyses required for a renewal source shall be determined on a case-by case basis. Modeling is not required for a renewal if the total emissions of any pollutant released do not exceed the following and there are no extenuating circumstances:

<u>Pollutant</u>	<u>Tons/Year</u>
PM	25
PM ₁₀	25
SO ₂	50
NO _x	50
CO	250

Based on the total facility licensed emissions, Evonik is below the emissions level required for modeling.

ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source

- will receive Best Practical Treatment,
- will not violate applicable emission standards, and
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-393-71-V-R/M (SM) subject to the following conditions.

Severability. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

STANDARD CONDITIONS

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions (38 M.R.S.A. §347-C).

- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115. [06-096 CMR 115]
- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both. [06-096 CMR 115]
- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request. [06-096 CMR 115]
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. §353-A. [06-096 CMR 115]
- (6) The license does not convey any property rights of any sort, or any exclusive privilege. [06-096 CMR 115]
- (7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [06-096 CMR 115]
- (8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request. [06-096 CMR 115]
- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license. [06-096 CMR 115]
- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license. [06-096 CMR 115]
- (11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:

- A. perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
 1. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
 2. pursuant to any other requirement of this license to perform stack testing.
 - B. install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
 - C. submit a written report to the Department within thirty (30) days from date of test completion.
[06-096 CMR 115]
- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:
- A. within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and
 - B. the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and
 - C. the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.
[06-096 CMR 115]
- (13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement. [06-096 CMR 115]

- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emission and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation. [06-096 CMR 115]
- (15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status. [06-096 CMR 115]

SPECIFIC CONDITIONS

(16) **Giebel Boiler #1**

A. Giebel Boiler #1 shall fire natural gas. Evonik shall maintain recordkeeping to document fuel use on both a monthly and a 12-month rolling total basis. [40 CFR Part 60, Subpart Dc, §60.48c(g)(2) and 06-096 CMR 115, BACT/BPT]

B. Emissions shall not exceed the following:

<u>Emission Unit</u>	<u>Pollutant</u>	<u>lb/MMBtu</u>	<u>Origin and Authority</u>
Giebel Boiler #1	PM	0.05	06-096 CMR 103(2)(B)(1)(a)

C. Emissions shall not exceed the following [06-096 CMR 115, BACT]:

<u>Emission Unit</u>	<u>PM</u> <u>(lb/hr)</u>	<u>PM₁₀</u> <u>(lb/hr)</u>	<u>SO₂</u> <u>(lb/hr)</u>	<u>NO_x</u> <u>(lb/hr)</u>	<u>CO</u> <u>(lb/hr)</u>	<u>VOC</u> <u>(lb/hr)</u>
Giebel Boiler #1	0.64	0.64	0.01	1.25	1.05	0.07

D. Visible emissions from Giebel Boiler #1 shall not exceed 10% opacity on a six-minute block average, except for no more than one six-minute block average in a continuous three-hour period. [06-096 CMR 101]

(17) **Hot Oil Heater**

A. The Hot Oil Heater shall fire natural gas. Evonik shall maintain recordkeeping to document fuel use on both a monthly and a 12-month rolling total basis. [06-096 CMR 115, BACT/BPT]

B. Emissions shall not exceed the following:

<u>Emission Unit</u>	<u>Pollutant</u>	<u>lb/MMBtu</u>	<u>Origin and Authority</u>
Hot Oil Heater	PM	0.02	06-096 CMR 115, BACT/BPT

C. Emissions shall not exceed the following [06-096 CMR 115, BACT/BPT]:

<u>Emission Unit</u>	<u>PM (lb/hr)</u>	<u>PM₁₀ (lb/hr)</u>	<u>SO₂ (lb/hr)</u>	<u>NO_x (lb/hr)</u>	<u>CO (lb/hr)</u>	<u>VOC (lb/hr)</u>
Hot Oil Heater	0.08	0.08	0.002	0.39	0.33	0.02

D. Visible emissions shall not exceed 10% opacity on a six-minute block average basis, except for no more than one six-minute block average in a three-hour period. [06-096 CMR 101, BACT/BPT]

(18) **Heaters #1, #2, #3, and #4**

A. Heaters #1, #2, #3, and #4 shall fire natural gas. Evonik shall maintain recordkeeping to document fuel use on both a monthly and a 12-month rolling total basis. [06-096 CMR 115, BACT/BPT]

B. Emissions shall not exceed the following [06-096 CMR 115, BACT/BPT]:

<u>Unit (firing natural gas)</u>	<u>PM (lb/hr)</u>	<u>PM₁₀ (lb/hr)</u>	<u>SO₂ (lb/hr)</u>	<u>NO_x (lb/hr)</u>	<u>CO (lb/hr)</u>	<u>VOC (lb/hr)</u>
Heater #1 1.1 MMBtu/hr	0.06	0.06	0.001	0.11	0.09	0.01
Heater #2 1.1 MMBtu/hr	0.06	0.06	0.001	0.11	0.09	0.01
Heater #3 1.1 MMBtu/hr	0.06	0.06	0.001	0.11	0.09	0.01
Heater #4 1.6 MMBtu/hr	0.08	0.08	0.001	0.16	0.13	0.01

C. Heaters #1, #2, #3, and #4 vent indoors; thus, they are not subject to opacity standards.

(19) **Thermal Oxidizer**

A. The Thermal Oxidizer shall fire either propane or natural gas. Evonik shall maintain recordkeeping to document fuel use on both a monthly and a 12-month rolling total basis. [06-096 CMR 115, BACT/BPT]

B. Emissions shall not exceed the following:

<u>Thermal Oxidizer 2.5 MMBtu/hr</u>	<u>PM (lb/hr)</u>	<u>PM₁₀ (lb/hr)</u>	<u>SO₂ (lb/hr)</u>	<u>NO_x (lb/hr)</u>	<u>CO (lb/hr)</u>	<u>VOC (lb/hr)</u>
Firing Propane	0.05	0.05	0.06	0.36	0.21	0.05
Firing Natural Gas			0.001	0.25		0.01

- C. Visible emissions from the Thermal Oxidizer shall not exceed 10% opacity on a six-minute block average basis, except for no more than one six-minute block average in a three-hour period. [06-096 CMR 101, BACT/BPT]

(20) **Emergency Generators**

- A. Emissions from the Building #1 Generator, the Fire Pump Generator, and the Giebel Building Generator shall not exceed the following:

Pollutant	lb/MMBtu	Origin and Authority	Unit
PM, PM ₁₀	0.12	06-096 CMR 103, BACT/BPT	Giebel Building Generator
		06-096 CMR 115, BPT	Building #1 Generator Fire Pump Generator

- B. Emissions from the Building #1 Generator, the Fire Pump Generator, and the Giebel Building Generator shall not exceed the following [06-096 CMR 115, BPT]:

Unit	PM (lb/hr)	PM₁₀ (lb/hr)	SO₂ (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Building #1 Generator 2.88 MMBtu/hr, Diesel	0.35	0.35	0.004	12.70	2.74	1.04
Fire Pump Generator 1.75 MMBtu/hr, Diesel	0.21	0.21	0.003	7.72	1.66	0.63
Giebel Building Generator 3.14 MMBtu/hr, Diesel	0.38	0.38	0.005	13.85	3.00	1.13

- C. Visible emissions from each of the diesel emergency generators shall not exceed 20% opacity on a six-minute block average, except for no more than two six-minute block averages in a three-hour period. [06-096 CMR 101, BPT]
- D. The emergency generators are each limited to 500 hours/year total operation based on a 12-month rolling total. A non-resettable hour meter shall be operated on each generator, and a written log shall be kept for each generator to document compliance with this limit. [06-096 CMR 115, BPT]
- E. The fuel sulfur content for the Building #1 Generator, the Fire Pump Generator, and Giebel Building Generator shall be limited to 0.0015% sulfur by weight. Compliance shall be demonstrated by fuel records from the supplier documenting the type and sulfur content of the fuel delivered. [06-096 CMR 115, BPT]
- F. The Emergency Generators shall meet the applicable requirements of 40 CFR Part 63, Subpart ZZZZ, including the following:

1. No later than May 3, 2013, Evonik shall meet the following maintenance requirements for each of the compression ignition emergency generators (Building #1 Generator, Fire Pump Generator, and Giebel Building Generator):
 - a. Change the oil and filter annually,
 - b. Inspect the air cleaner annually, and
 - c. Inspect the hoses and belts annually and replace as necessary.Records shall be maintained documenting compliance with the maintenance requirements. [40 CFR §63.6603(a) and Table 2(d); 06-096 CMR 115]
2. A non-resettable hour meter shall be installed and operated on each generator. [40 CFR §63.6625(f)]
3. Maintenance, Testing, and Non-Emergency Operating Situations
 - a. The generators shall each be limited to 100 hours/year for maintenance and testing. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not include peak shaving or generating income or a financial arrangement with another entity). A maximum of 15 hours per year (of the 50 hours/year) may be used as part of a demand response program. These limits are based on a 12-month rolling total. Compliance shall be demonstrated by a written log of all generator operating hours. [40 CFR §63.6640(f)(1); 06-096 CMR 115]
 - b. Evonik shall keep records that include maintenance conducted on the three generators and the hours of operation of each engine recorded through the non-resettable hour meter. Documentation shall include the hours spent for emergency operation, including what classified the operation as emergency and how many hours spent for non-emergency. If the generators are used for demand response operation, Evonik must keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response. [40 CFR §63.6655(e) and (f)]
4. The generators shall be operated and maintained according to the manufacturer's emission-related written instructions, or Evonik shall develop a maintenance plan which provides to the extent practicable for the maintenance and operation of the engines in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR §63.6625(e)]

(21) **Process Emission Sources: Giebel Building**

- A. Visible emissions from the Bin Vent Filter on Silo #7 shall not exceed 20% opacity on a six-minute block average basis except for no more than one six-minute block average in a one-hour period. Evonik shall keep records of all baghouse maintenance on the Silo #7 Bin Vent Filter.
- B. Evonik shall operate two condensers and two catalytic oxidizers to control VOC and HAP emissions from Giebel Building process emission sources with a total combined VOC/HAP destruction efficiency of at least 95%.
- C. The total combined emissions from Catalytic Oxidizer Stacks #1 and #2 shall not exceed 1.5 tons MMA per month and 0.2 tons MA per month.
- D. Evonik shall continuously monitor and record the inlet and outlet temperatures across the catalyst beds and take corrective action if temperatures are outside of the range between 450 °F and 1000 °F, the appropriate temperature range for adequate VOC/HAP destruction.
- E. Within five years from the date of issuance of this license, and upon request thereafter or whenever a significant production change occurs such that emissions are expected to be notably different, Evonik shall conduct stack testing on the exhaust from the two condensers and two catalytic oxidizers to confirm at least 95% total combined control efficiency of VOC and HAP. The facility shall then operate using the temperature range and operating configuration(s) at which the most recently completed stack testing demonstrates this minimum control efficiency. Catalytic Oxidizer temperature shall be continuously monitored and recorded to verify conditions sufficient for this level of control.
- F. By the 21st of each month and using the most recently recorded monthly and quarterly vent monitoring of the air velocity, temperature, MMA ppm, MA ppm, and run time hours, Evonik shall calculate the average daily emissions of MMA and of MA from Catalytic Oxidizer Stacks #1 and #2 for the previous month. The facility shall also calculate the percent destruction achieved by the control units to document compliance with the minimum combined 95% required destruction level.
- G. Evonik shall continue operational practices to minimize VOC and HAP emissions and monitoring practices to document monthly emissions from the Giebel Building process sources, including conducting monthly and quarterly vent monitoring of air velocity, temperature, MMA and MA concentrations in the exhaust, and run time hours.
- H. Visible emissions from the flat sheet extrusion process saw and grinder dust collector shall not exceed 5% opacity on a six-minute block average except for one six-minute block in a continuous one-hour period. [06-096 CMR 101]

(22) **Process Emission Sources: Lamination Process** [06-096 CMR 115, BACT/BPT]

- A. Emissions of methylene chloride from the Lamination Process shall not exceed 6.5 tons/year. Compliance shall be documented on a monthly and a 12-month rolling total basis through calculation of monthly methylene chloride emissions. These monthly emissions shall be determined from records of vent monitoring air velocity, temperature, and methylene chloride concentration (ppm) at the production line, and monthly lamination line run time hours. These records shall be provided to the Department upon request.
- B. Evonik shall calibrate the methylene chloride meter according to the manufacturer's specifications prior to each use to ensure accuracy of quarterly monitoring data.
- C. Using the most recently recorded monthly and quarterly data, Evonik shall calculate the average daily emissions of methylene chloride from the Lamination Process, on a calendar month block average basis.
- D. The above monitoring requirements notwithstanding, for any quarter during which the Lamination Process is not operated, documentation that the process was not operated will suffice in place of monitoring data.
- E. Evonik shall continue to use best management practices to minimize emissions of methylene chloride from the Lamination Process.

(23) **Process Emission Sources: Wiped Film Evaporator**

- A. Evonik shall control VOC/HAP emissions from the Wiped Film Evaporator vacuum system by means of a vent condenser. [06-096 CMR 115, BACT/BPT]
- B. Evonik shall conduct quarterly testing of the exhaust from Stack #3 to determine ppm of MA and MMA in the exhaust stream, air velocity, and temperature. The facility shall then use this data and monthly WFE run time hours to calculate MA and MMA emissions from the process, after controls, on a monthly and a 12-month rolling total basis. [06-096 CMR 115, BACT/BPT]
- C. Evonik shall maintain weekly records of the condenser jacket water flow, the condenser jacket inlet water temperature, and the outlet vapor temperature to monitor effective operation of the unit. [06-096 CMR 115, BACT/BPT]

Based on manufacturer's specifications or as otherwise established by the manufacturer, Evonik shall operate the Wiped Film Evaporator's condenser such that the outlet vapor temperature is at least 5°F greater than the inlet water temperature.

- D. Sample collection and analysis equipment utilized in the WFE emissions quarterly testing shall be calibrated according to the manufacturer's specifications and appropriate laboratory quality control procedures.
- E. Evonik shall calculate and maintain records of the monthly and 12-month rolling total of VOC/HAP emissions from this process emission source, not to exceed 1.6 tons/year. [06-096 CMR 115, BACT/BPT]

(24) Process Emission Sources: Multi-Functional Coating Facility

- A. Evonik shall continuously control VOC emissions from the coating facility by the use of a Thermal Oxidizer.
- B. In the Thermal Oxidizer, Evonik shall maintain a minimum temperature of 1500°F or the minimum temperature at which the most recently completed stack testing demonstrates a VOC destruction efficiency of at least 98%. Evonik shall use thermocouples in the incinerator chamber and associated recording devices to continuously monitor and record the Thermal Oxidizer bed temperature to document compliance.
- C. Evonik shall maintain monthly records of the amount of coatings used and the VOC and HAP content, identity, and percentage of the coatings. These records, along with stack test results confirming at least 98% destruction of VOC and HAP, shall be used to calculate actual emissions, both on a monthly and a 12-month rolling total basis. Such records shall be maintained onsite and made available to the Department upon request. [06-096 CMR 115, BPT]
- D. Evonik shall conduct additional performance testing on the Thermal Oxidizer upon request by the Department.
- E. Emissions from the Thermal Oxidizer shall not exceed 7.2 tons/year of VOC/HAP.
[06-096 CMR 115, BPT]

(25) Process Emission Sources: Laser Cutting Process

Evonik shall include estimated emissions from the Laser Cutting Process, based on the following, in the documentation of compliance with the facility-wide VOC and HAP emission limits:

- A. Carbon bed manufacturer's control efficiency specification for the carbon bed.
- B. Evonik's monthly testing for emissions from the carbon bed exhaust flow.
- C. Upon detection of carbon bed breakthrough, Evonik shall replace the carbon bed within a reasonable timeframe for carbon bed replacement, not to exceed three months from the date of detected breakthrough. The Laser Cutting Process is not required to cease operation during this time. Before

replacement of the carbon bed, Evonik shall measure ppm of MMA emissions from the Laser Cutting Process, then use this data and process run time records to quantify emissions from the Laser Cutting Process during the time from first detection of bed breakthrough to replacement with a new carbon bed.

(26) **Parts Washers [06-096 CMR 130]**

Parts washers at Evonik are subject to *Solvent Cleaners*, 06-096 CMR 130 (as amended).

- A. Evonik shall keep records of the amount of solvent added to each parts washer. [06-096 CMR 115, BPT]
- B. The following are exempt from the requirements of 06-096 CMR 130 [06-096 CMR 130]:
 1. Solvent cleaners using less than two liters (68 oz) of cleaning solvent with a vapor pressure of 1.00 mmHg, or less, at 20° C (68° F);
 2. Wipe cleaning; and,
 3. Cold cleaning machines using solvents containing less than or equal to 5% VOC by weight.
- C. The following standards apply to cold cleaning machines that are applicable sources under 06-096 CMR 130:
 1. Evonik shall attach a permanent conspicuous label to each unit summarizing the following operational standards [06-096 CMR 130]:
 - (a) Waste solvent shall be collected and stored in closed containers.
 - (b) Cleaned parts shall be drained of solvent directly back to the cold cleaning machine by tipping or rotating the part for at least 15 seconds or until dripping ceases, whichever is longer.
 - (c) Flushing of parts shall be performed with a solid solvent spray that is a solid fluid stream (not a fine, atomized, or shower type spray) at a pressure that does not exceed 10 psig. Flushing shall be performed only within the freeboard area of the cold cleaning machine.
 - (d) The cold cleaning machine shall not be exposed to drafts greater than 40 meters per minute when the cover is open.
 - (e) Sponges, fabric, wood, leather, paper products and other absorbent materials shall not be cleaned in the degreaser.
 - (f) When a pump-agitated solvent bath is used, the agitator shall be operated to produce no observable splashing of the solvent against the tank walls or the parts being cleaned. Air agitated solvent baths may not be used.
 - (g) Spills during solvent transfer shall be cleaned immediately. Sorbent materials used to clean up spills shall then immediately be stored in covered containers.
 - (h) Work area fans shall not blow across the opening of the degreaser unit.

- (i) The solvent level shall not exceed the fill line.
- 2. The remote reservoir cold cleaning machine shall be equipped with a perforated drain with a diameter of not more than six inches.

(27) Fugitive VOC and HAP Sources

- A. Evonik shall include the following operating and maintenance procedures to minimize facility wide fugitive VOC/HAP emissions:
 - 1. Maintain all tanks and associated piping to prevent liquid and vapor leaks;
 - 2. Use only closed-loop vapor balance systems, where appropriate, and weighted PV relief valves, as appropriate, to minimize tank losses through evaporation and to minimize the chance of spills;
 - 3. Conduct routine leak inspections, and take prompt corrective action as necessary to minimize emissions, according to the requirements specified in Part C of this Specific Condition; and
 - 4. Keep all VOC/HAP containers covered when not in immediate use.
- B. Evonik shall maintain monthly records of VOC and HAP emissions from the following sources demonstrated by using EPA's TANKS program:

Tank ID	Content	Size (gal)
<i>HWF Facility Tanks</i>		
T-11	Waste from Manufacturing Process (before WFE) or Cleaned MMA (from WFE)	2,000
T-12		2,000
T-13		2,000
T-14		2,000
T-15		2,000
T-16		1,000
T-52	Condensate (Bulk Waste)	5,000
<i>Giebel Building Tanks</i>		
T-80	MMA	30,000
T-81	MMA	30,000
T-82	MA	12,000

C. Inspection of Piping Components [06-096 CMR 115, BPT]

- 1. Evonik shall conduct quarterly preventive maintenance inspections on all piping components not covered by automatic vapor monitoring equipment, including valves, seals, drains, and flanges located outdoors in accordance with 40 CFR Part 60, Appendix B, Method 21 or in accordance with a method approved by the Department.
- 2. Detected leaks, as defined in the Hazardous Organic NESHP (HON) equipment leak standard (40 CFR 63, Subpart H) [500 ppm for valves, compressors, connectors, pressure relief valves, and instrumentation

systems; 1,000 ppm for pumps; and 10,000 ppm for agitators or as otherwise defined in 40 CFR Part 63, Subpart H], and those detected by audible, visual, or olfactory means, shall be addressed, as appropriate, within 15 days of their discovery. Appropriate corrective action requiring longer than 15 days to execute shall be reported to the Department, including a description of the leaking component, the magnitude of the emissions, and a schedule for conducting the repairs.

3. Evonik shall maintain a log of the quarterly inspections documenting such detected leaks and the corrective action taken.
4. Emissions from malfunctioning components shall be included in the determination of compliance with VOC RACT requirements.

D. Evonik shall minimize fugitive VOC and HAP emissions by keeping all containers covered when not in immediate use, as appropriate, and managing materials in such a manner as to reduce the likelihood of spills. [06-096 CMR 115, BPT]

(28) **VOC RACT**

Evonik shall control VOC emissions such that the total facility VOC emissions do not exceed, on a daily basis, 15% of the uncontrolled daily VOC emissions. The following are the controls and recordkeeping required by VOC RACT.

- A. Evonik shall operate the following:
 1. a vent condenser to control the VOC emissions resulting from the operation of the WFE system;
 2. two catalytic oxidizers to capture and control VOC emissions from Giebel Building process sources;
 3. a Thermal Oxidizer to control VOC emissions from the Multi-Functional Coating Facility. [06-096 CMR 134, 06-096 CMR 115, BACT/BPT]
- B. Evonik shall maintain monthly records of the VOC destruction in the catalytic oxidizers and the Thermal Oxidizer. [06-096 CMR 134, 06-096 CMR 115, BPT]
- C. Evonik shall maintain weekly records of condensate collection in the Wiped Film Evaporator vent condenser. [06-096 CMR 134, 06-096 CMR 115, BPT/BACT]

- D. For facility VOC and HAP emissions tracking, fuel use at the facility shall be based on fuel supplier records or data from fuel flow meters, determined monthly and on a 12-month rolling total basis.
- E. Evonik shall maintain monthly records of all fugitive VOC emissions from all process storage tanks calculated by using EPA's TANKS program. [06-096 CMR 134, 06-096 CMR 115, BPT]
- F. Evonik shall, by the 21st of each succeeding month, calculate and record the daily total facility wide VOC emissions. Records shall indicate on a daily basis the percent control efficiency for VOC, the control equipment utilized, and all occasions when equipment from which emissions originate was operating but the associated control equipment (WFE vent condenser, catalytic oxidizers, or Thermal Oxidizer) was not concurrently operating. [06-096 CMR 134, 06-096 CMR 115, BPT/BACT]

(29) Monitoring and Recordkeeping Requirements

- A. The following are identified as Parameter Monitors [06-096 CMR 115, BPT]:
 - 1. Temperature monitors on the catalytic oxidizers;
 - 2. Temperature monitors on the Thermal Oxidizer; and
 - 3. Flow meter on the WFE vacuum pump condenser.
- B. Parameter monitors must record accurate and reliable data. If a parameter monitor allows the recording of accurate and reliable data less than 98% of the source operating time within any quarter of the calendar year, the Department may initiate enforcement action and may include in that enforcement action any period of time that the parameter monitor was not providing accurate and reliable data during that quarter unless the licensee can demonstrate to the satisfaction of the Department that the failure of the system to provide accurate and reliable data was due to the performance of the established quality assurance and quality control procedures or unavoidable malfunctions. [06-096 CMR 115, BPT]
- C. For the dust collector, WFE vent condenser, Thermal Oxidizer, and catalytic oxidizers, Evonik shall keep maintenance logs recording the dates and reasons for all emission upsets as well as all routine and non-routine maintenance procedures. [06-096 CMR 115, BPT]

(30) Facility VOC and HAP Annual Emission Limits

Evonik shall not exceed an emission limit of 39.9 tons per year of VOC based on a 12-month rolling total. This is a facility-wide limit. As such, emissions from all equipment and processes at the facility shall be included in calculations used to determine compliance with this limit.

Evonik shall not exceed an emission limit of 9.99 tons per year of any single HAP or 24.9 tons per year for all HAPs combined, each based on a 12-month rolling total. This is a facility-wide limit. As such, emissions from all equipment and processes at the facility shall be included in calculations used to determine compliance with this limit, including HAP emissions from fuel burning equipment and all other HAP emission sources. HAPs are as identified in 06-096 CMR 115, Appendix B and in Section 112(b) of the CAA.

The source shall maintain monthly and 12-month rolling total documentation of all VOC and HAP emissions from the various sources throughout the facility, based on monitoring, recordkeeping, and calculations as necessary and as described in this license for each emission unit to quantify VOC and HAP emissions from individual units and from the facility as a whole. [06-096 CMR 115, BPT]

For facility VOC and HAP emissions tracking, fuel use at the facility shall be based on fuel supplier records or data from fuel flow meters, determined monthly and on a 12-month rolling total basis.

(31) **Annual Emission Statement**

In accordance with *Emission Statements*, 06-096 CMR 137 (as amended), the licensee shall annually report to the Department the information necessary to accurately update the State's emission inventory by means of either of the following:

- A. A computer program and accompanying instructions supplied by the Department; or
- B. A written emission statement containing the information required in 06-096 CMR 137.

The emission statement must be submitted as specified by the date in 06-096 CMR 137. [06-096 CMR 137]

(32) **Quarterly Reporting**

The licensee shall submit a Quarterly Report to the Department within 30 days after the end of each calendar quarter detailing the following for the control equipment and parameter monitors required by this license:

- A. All control equipment downtimes and malfunctions;
- B. All parameter monitor downtimes and malfunctions;
- C. All excess events of emission and operational limitations set by this Order, Statute, or state or federal regulations, as appropriate. The following information shall be reported for each excess event:
 - 1. Standard exceeded;

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Sanford, Maine
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2. Date, time, and duration of excess event;
3. Maximum and average values of the excess event, reported in the units of the applicable standard, and copies of pertinent strip charts and printouts when requested;
4. A description of what caused the excess event;
5. The strategy employed to minimize the excess event; and
6. The strategy employed to prevent reoccurrence.

D. A report certifying there were no excess emissions, if that is the case.

(33) Evonik shall notify the Department within 48 hours if a malfunction or breakdown in any component causes a violation of any emission standard (38 M.R.S.A. §605).

DONE AND DATED IN AUGUSTA, MAINE THIS 7 DAY OF May, 2013.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:

Marie Allen Robert Cone for
PATRICIA W. AHO, COMMISSIONER

The term of this license shall be ten (10) years from the signature date above.

Note: If a complete renewal application, as determined by the Department, is submitted prior to expiration, then pursuant to Title 5 MRSA §10002, all terms and conditions of the license shall remain in effect until the Department takes final action on the renewal of the license.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: May 29, 2008

Date of application acceptance: May 29, 2008

Date filed with the Board of Environmental Protection:

This Order prepared by Jane Gilbert, Bureau of Air Quality.



