STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
17 STATE HOUSE STATION AUGUSTA, MAINE 04333-0017

DEPARTMENT ORDER

Pioneer Plastics Corporation **Androscoggin County** **Auburn, Maine** **A-448-70-F-R/A**	**Departmental** **Findings of Fact and Order** **Part 70 Air Emission License** **Renewal with Amendment**

FINDINGS OF FACT

After review of the Part 70 License renewal and amendment applications, staff investigation reports, and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 Maine Revised Statutes (M.R.S.) § 344 and § 590, the Maine Department of Environmental Protection (Department) finds the following facts:

I. REGISTRATION

A. Introduction

FACILITY	Pioneer Plastics Corporation
LICENSE TYPE	Part 70 License Renewal Part 70 Significant License Modification
NAICS CODES	325211, 322222, 326130
NATURE OF BUSINESS	Manufacturer of decorative laminate, melamine coated paper, and specialty resins
FACILITY LOCATION	One Pionite Road, Auburn, Maine

Pioneer Plastics Corporation (Pioneer) operates a manufacturing plant in Auburn, Maine. The facility produces various laminate products that are sold for use in table tops, counters, flooring, and furniture and produces specialty resins for sale.

Pioneer has the potential to emit more than 100 tons per year (tpy) of particulate matter (PM), particulate matter under 10 micrometers (PM_{10}), particulate matter under 2.5 micrometers ($PM_{2.5}$), sulfur dioxide (SO_2), nitrogen oxides (NO_x), carbon monoxide (CO), and volatile organic compounds (VOC); therefore, the source is classified as a major source for criteria pollutants.

Pioneer has the potential to emit 10 tpy or more of a single hazardous air pollutant (HAP) or 25 tpy or more of combined HAP; therefore, the source is classified as a major source for HAP.

New Source Review (NSR) license A-448-77-13-M (NSR #13), issued March 9, 2020, addressed the production of polyamide resin in the reactors licensed for polyester resin production. NSR license A-448-77-14-M (NSR #14), issued April 27, 2020, addressed the addition of a digital printing system. Pioneer has requested that the provisions of these NSR licenses be incorporated into their Part 70 license.

B. Emission Equipment

The following emission units are addressed by this Part 70 License:

Fuel Burning Equipment

Equipment	Maximum Heat Input Capacity (MMBtu/hr)	Fuel Type	Manf. Date	Install. Date	Stack #
Boiler #4	55.5	#6 fuel oil [a] natural gas	1975	1977	1
Boiler #6	96.6 96.8	#6 fuel oil [a] natural gas	1981	1995	1
Boiler #5/TO	39.5 50.0	#6 fuel oil [a] natural gas	1982	1983	1
Process Heater #7 [b]	*2.8*	*natural gas*	*1985*	*1985*	*2*
Process Heater #8	5.0	natural gas	1994	1994	2
RTO #1	1.5	natural gas	2000	2014	3
Thermal Oil Heater #1	2.55	natural gas	2018	2018	4
Generator #1	1.13	natural gas	1982	1982	fugitive
Generator #2	1.2	distillate fuel	1982	1982	fugitive
Fire Pump #1	2.1	distillate fuel	1970	1970	fugitive

[a] This equipment was previously licensed to fire both #4 fuel oil and #6 fuel oil. The authorization to fire #4 fuel oil has been removed at the request of the facility.

[b] Process Heater #7 has been taken out of service and is no longer included in this license.

Process Equipment

Equipment	Unit Capacity [a]	Primary Product or Purpose	Pollution Control Equipment
Reactor K1	3,000 gallons	melamine resins, urea resins	Boiler #5/TO or RTO #1
Reactor K2	1,200 gallons		
Reactor K3 / Resin Blender	5,000 gallons	blending tank (primary use)	Boiler #5/TO [b]
		urea resins production (occasional use)	Vapor Condenser [c]
Reactor K4	3,500 gallons	Polyester and Polyamide Resins	Boiler #5/TO or RTO #1
Reactor K5	3,500 gallons		
Reactor K6	5,000 gallons		
Pilot Reactor K7	100 gallons		
Reactor K8	3,500 gallons		
Impregnator P4	150 ft/min	Phenolic Impregnated Kraft Paper	Boiler #5/TO
Impregnator P5	600 ft/min		
Impregnator P9 (including Press 1)	800 ft/min		
Coater C4	45 ft/min	Polyester papers / fiberglass substrate	
Treater M1	110 ft/min	Decorative papers or fiberglass substrate treated with melamine and/or urea resins	N/A
Treater M4	140 ft/min		
Treater M5	140 ft/min		
Treater M7	140 ft/min		
CPL Line #1	237.8 ft^2/min	High pressure laminate	Fabric Filter

[a] Unit capacities for process equipment are listed for informational purposes only and are not intended as license restrictions.
[b] When methanol or other VOC or HAP is used in K3
[c] When acetone is used

Previously licensed Treater M6 and the Pilot Treater have been removed and are no longer addressed by this license.

Material Storage and Tanks

Equipment	Capacity	Installation Date
Terephthalic Acid Silo	318,000 lbs	N/A
Melamine Silo	303,000 lbs	N/A
Terephthalic Acid Weigh Hopper – Poly 1	4,300 lbs	N/A
Terephthalic Acid Weigh Hopper – Poly 2, 3	4,300 lbs	N/A
Melamine Weigh Hopper	4,000 lbs	N/A
Solvent Cleaner	20 gallons	N/A
Tank #27 – Phenolic Resin/Blend	19,800 gallons	1965
Tank #29 – Methanol	20,000 gallons	1965 [a]
Tank #30 – Formaldehyde	20,000 gallons	1965
Tank #45 – Phenolic Resin/Blend	10,000 gallons	1973
Tank #46 – Phenolic Resin/Blend	10,000 gallons	1973
Tank #47 – Phenolic Resin/Blend	10,000 gallons	1973
Tank #48 – Phenolic Fast Cure	10,000 gallons	1973
Tank #49 – Phenolic Resin/Blend	10,000 gallons	1973
Tank #60 – Phenolic Resin	12,500 gallons	1988
Tank #66 – 1,6 Hexanediol	15,000 gallons	1993
Tank #67 [b]	*500 gallons*	*N/A*
Tank #70 – Phenolic Resin	600 gallons	2017
Tank #71 – Phenolic Resin	600 gallons	2017
Chemical Loading/Unloading Operations	N/A	N/A

[a] Tank #29 had a new bottom installed in September 1993.
[b] Tank #67 was previously licensed but never installed. It is being removed from this license.

Material Handling and Miscellaneous

Equipment	Pollution Control Equipment
Pressroom	N/A
Digital Printers	N/A
Routers, Table Saws, Sanders	Fabric Filters
Dust Transport System	
Resin Crusher/Grinder	
Drillboard Press Plate	N/A

Pioneer operates screen print equipment. All materials used in this operation are water-based. The screen print operation is therefore considered an insignificant activity pursuant to 06-096 C.M.R. ch. 140, Appendix B, § B.1. This process is mentioned for completeness purposes only.

Pioneer has additional insignificant activities which do not need to be listed in the emission equipment tables above. The list of insignificant activities can be found in the Part 70 license application and in Appendix B of *Part 70 Air Emission License Regulations*, 06-096 C.M.R. ch. 140.

C. Acronyms and Units of Measure

ASTM	American Society for Testing and Materials
BACT	Best Available Control Technology
BPT	Best Practical Treatment
C.F.R.	Code of Federal Regulations
C.M.R.	Code of Maine Rules
CAM	Compliance Assurance Monitoring
CEMS	Continuous Emissions Monitoring System
CMS	Continuous Monitoring System
CO	carbon monoxide
COMS	Continuous Opacity Monitoring System
CPMS	Continuous Parameter Monitoring System
EPA or US EPA	United States Environmental Protection Agency
gal/hr	gallon per hour
GHG	greenhouse gases
HAP	Hazardous Air Pollutants
HCl	hydrogen chloride or hydrochloric acid
Hg	mercury
lb	pound
lb/hr	pounds per hour
lb/MMBtu	pounds per million British thermal units
M.R.S.	Maine Revised Statutes
MMBtu	million British thermal units
MMBtu/hr	million British thermal units per hour
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NO_x	nitrogen oxides
NSPS	New Source Performance Standards

NSR	New Source Review
O_2	oxygen
PM	particulate matter less than 100 microns in diameter
PM_{10}	particulate matter less than 10 microns in diameter
$PM_{2.5}$	particulate matter less than 2.5 microns in diameter
ppmdv	parts per million on a dry volume basis
RACT	Reasonably Available Control Technology
RICE	reciprocating internal combustion engine
SSM	startup, shutdown, and malfunction
SO_2	sulfur dioxide
tpy	ton per year
VOC	volatile organic compounds

D. Definitions

Aggregate batch vent stream means a process vent containing emissions from at least one reactor batch vent and at least one additional reactor or non-reactor batch process vent where emissions are ducted, hard-piped, or otherwise connected together for a continuous flow. For the purposes of this license, Reactors K1 and K2 are part of an aggregate batch vent stream.

Distillate fuel means the following:

- Fuel oil that complies with the specifications for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials (ASTM) in ASTM D396;
- Diesel fuel oil numbers 1 or 2, as defined in ASTM D975;
- Kerosene, as defined in ASTM D3699;
- Biodiesel, as defined in ASTM D6751; or
- Biodiesel blends, as defined in ASTM D7467.

Malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

Period of gas curtailment or supply interruption means a period of time during which the supply of gaseous fuel to an affected boiler or process heater is restricted or halted for reasons beyond the control of the facility. The act of entering into a contractual agreement with a supplier of natural gas established for curtailment purposes does not constitute a reason that is under the control of a facility for the purposes of this definition. An increase in the cost or unit price of natural gas due to normal market fluctuations not during periods of supplier delivery restriction does not constitute a period of natural gas curtailment or

supply interruption. On-site gaseous fuel system emergencies or equipment failures qualify as periods of supply interruption when the emergency or failure is beyond the control of the facility.

Portable or Non-Road Engine means an internal combustion engine which is portable or transportable, meaning designed to be and capable of being carried or moved from one location to another. Indicia of transportability include, but are not limited to, wheels, skids, carrying handles, dolly, trailer, or platform. This definition does NOT include engines which remain or will remain at a location (excluding storage locations) for more than 12 consecutive months or a shorter period of time for an engine located at a seasonal source. A location is any single site at a building, structure, facility, or installation. Any engine that replaces an engine at a location and that is intended to perform the same or similar function as the engine replaced will be included in calculating the consecutive time period.

An engine is not a non-road (portable) engine if it remains or will remain at a location for more than 12 consecutive months or for a shorter period of time if sited at a seasonal source. A seasonal source is a source that remains in a single location for two years or more and which operates for fewer than 12 months in a calendar year. If an engine operates at a seasonal source for one entire season, the engine does not meet the criteria of a non-road (portable) engine and is subject to applicable stationary engine requirements.

Records or *Logs* mean either hardcopy or electronic records.

E. Application Classification

All rules, regulations, or statutes referenced in this air emission license refer to the amended version in effect as of the issued date of this license.

The application for Pioneer is for the renewal of their existing Part 70 Air Emission License and subsequent Part 70 amendments, pursuant to Section 2(A) of *Part 70 Air Emission License Regulations*, 06-096 Code of Maine Rules (C.M.R.) ch. 140.

Pioneer has also requested incorporation into the Part 70 Air Emission License the relevant terms and conditions of the NSR licenses issued to the facility pursuant to *Major and Minor Source Air Emission License Regulations*, 06-096 C.M.R. ch. 115, including A-448-77-13-M issued March 9, 2020, and A-448-77-14-M issued April 27, 2020. Therefore, the license is considered to be a Part 70 License renewal with a Part 70 Significant License Modification for the incorporation of NSR requirements.

F. Facility Description (or Project Description for NSR Incorporation)

Pioneer operates a manufacturing plant containing various fuel-burning devices and process equipment. The facility's principal products consist of the following:

1. Decorative laminate used for countertops and furniture;
2. Amino resin-coated paper used as decorative surface for particleboard and other substrates;
3. Polyester, phenolic, or amino resin-coated fiberglass mats; and
4. Specialty resins produced both for resale and for on-site use.

Pioneer's manufacturing process includes operation of the following equipment types:

Boilers – Pioneer operates several boilers for facility and process heat needs. Boiler #5/Thermal Oxidizer (Boiler #5/TO) is also used to incinerate VOC/HAP-laden emission streams from the manufacturing process.

Reactors – Pioneer has eight reactor vessels in which resins are manufactured.

Impregnators – There are three impregnators used to produce phenolic-impregnated Kraft paper. This paper is then either used as a substrate to make finished laminate product or shipped out as is.

Coater/Treater – There is one coater/treater that is used to apply polyester or phenolic resin to paper ort fiberglass substrates.

Treaters – There are four treaters which apply melamine and urea resins to decorative papers or fiberglass substrate.

CPL Line #1 – There is one high-pressure laminate, double-belt press that produces continuous pressed laminate (CPL).

Pressroom – There are seven batch laminate presses to produce high pressure laminate (HPL).

Pioneer also operates various tanks for chemical storage and collects and controls emissions of particulate matter from cutting, grinding, and sanding operations.

G. General Facility Requirements

Pioneer is subject to the following state and federal regulations listed below in addition to the regulations listed for specific units as described further in this license.

Citation	Requirement Title
06-096 C.M.R. ch. 101	Visible Emissions Regulation
06-096 C.M.R. ch. 102	Open Burning
06-096 C.M.R. ch. 103	Fuel Burning Equipment Particulate Emission Standard
06-096 C.M.R. ch. 105	General Process Source Particulate Emission Standard
06-096 C.M.R. ch. 106	Low Sulfur Fuel Regulation
06-096 C.M.R. ch. 109	Emergency Episode Regulations
06-096 C.M.R. ch. 110	Ambient Air Quality Standards
06-096 C.M.R. ch. 116	Prohibited Dispersion Techniques
06-096 C.M.R. ch. 117	Source Surveillance – Emissions Monitoring
06-096 C.M.R. ch. 123	Control of Volatile Organic Compounds from Paper, Film and Foil Coating Operations
06-096 C.M.R. ch. 126	Capture Efficiency Test Procedures
06-096 C.M.R. ch. 129	Surface Coating Facilities
06-096 C.M.R. ch. 130	Solvent Cleaners
06-096 C.M.R. ch. 134	Reasonably Available Control Technology for Facilities that Emit Volatile Organic Compounds
06-096 C.M.R. ch. 137	Emission Statements
06-096 C.M.R. ch. 138	Reasonably Available Control Technology for Facilities that Emit Nitrogen Oxides
06-096 C.M.R. ch. 140	Part 70 Air Emission License Regulations
06-096 C.M.R. ch. 143	New Source Performance Standards
06-096 C.M.R. ch. 144	National Emission Standards for Hazardous Air Pollutants
40 C.F.R. Part 60, Subpart VVV	Standards of Performance for Polymeric Coating of Supporting Substrates Facilities
40 C.F.R. Part 61, Subpart M	National Emission Standard for Asbestos
40 C.F.R. Part 63, Subpart SS	National Emission Standards for Closed Vent Systems, Control Devices, Recovery Devices and Routing to a Fuel Gas System or a Process
40 C.F.R. Part 63, Subpart UU	National Emission Standards for Equipment Leaks – Control Level 2 Standards
40 C.F.R. Part 63, Subpart OOO	National Emission Standards for Hazardous Air Pollutant Emissions: Manufacture of Amino/Phenolic Resins
40 C.F.R. Part 63, Subpart EEEE	National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline)
40 C.F.R. Part 63, Subpart FFFF	National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing
40 C.F.R. Part 63, Subpart JJJJ	National Emission Standards for Hazardous Air Pollutants: Paper and Other Web Coating

Citation	Requirement Title
40 C.F.R. Part 63, Subpart OOOO	National Emission Standards for Hazardous Air Pollutants: Printing, Coating, and Dyeing of Fabrics and Other Textiles
40 C.F.R. Part 63, Subpart ZZZZ	National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
40 C.F.R. Part 63, Subpart DDDDD	National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters
40 C.F.R. Part 64	Compliance Assurance Monitoring
40 C.F.R. Part 70	State Operating Permit Programs

II. BEST PRACTICAL TREATMENT (BPT) AND EMISSION STANDARDS

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 C.M.R. ch. 100. 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. NO_x RACT (Reasonably Available Control Technology)

Reasonably Available Control Technology for Facilities that Emit Nitrogen Oxides, 06-096 C.M.R. ch. 138 (NO_x RACT) is applicable to sources that have the potential to emit quantities of NO_x equal to or greater than 100 tons/year. Boiler #4, Boiler #5/TO, and Boiler #6 are subject to applicable NO_x RACT requirements. Amendment A-448-72-K-A/R (issued 8/23/1995) as amended in A-448-71-M-M (issued 5/29/1996) and A-448-71-O-M (issued 3/10/1997) addressed NO_x RACT requirements, and provisions of these license amendments were included in source-specific revisions to Maine's State Implementation Plan (SIP). These NO_x RACT requirements are incorporated in this license renewal.

C. VOC RACT (Reasonably Available Control Technology)

Reasonably Available Control Technology for Facilities that Emit Volatile Organic Compounds, 06-096 C.M.R. ch. 134 (VOC RACT) is applicable to sources that have the potential to emit quantities of VOC equal to or greater than 40 tons/year from non-exempt

equipment. VOC are emitted from Pioneer's paper coating lines. Because Pioneer was located in a non-attainment area for ozone, VOC emissions from the paper coating lines were subject to RACT requirements.

Air Emission License Amendment A-448-72-D-A (August 4, 1989) required Pioneer to control VOC emissions from the paper coating lines by applying low-solvent coatings and/or by destroying VOC emissions in a Thermal Oxidizer. VOC emissions were limited to 2.9 lbs of VOC per gallon of coatings applied by the melamine Treaters.

An additional VOC RACT analysis was conducted in 1997 pursuant to 06-096 C.M.R. ch. 134 and included in Amendment A-448-71-P-A, issued June 16, 1997. Provisions of this license amendment were included in a source-specific revision to Maine's SIP.

The VOC RACT requirements are incorporated in this renewal.

D. Mandatory Greenhouse Gas (GHG) Reporting

Federal regulation *Mandatory Greenhouse Gas Reporting,* 40 C.F.R. Part 98, is applicable to some facilities as addressed in *General Provisions, Who must report?*, 40 C.F.R. § 98.2. These are not considered "applicable requirements" for the purposes of Part 70 licenses. Therefore, this information is presented for informational purposes only.

E. Compliance Assurance Monitoring (CAM)

Compliance Assurance Monitoring, 40 C.F.R. Part 64 is applicable to units at major sources if the unit has emission limits, a control device to meet the limits, and pre-control emissions greater than 100% of the major source threshold.

This regulation's 40 C.F.R. § 64.2(b)(1)(vi) specifies the exemption from specific CAM requirements for any emission unit subject to emission limitations or standards for which a Part 70 air emission license specifies a continuous compliance determination method. Furthermore, 40 C.F.R. § 64.2(b)(1)(i) specifies the exemption from specific CAM requirements for any emission unit subject to emission limitations or standards in a NSPS or NESHAP regulation proposed by the Administrator after November 15, 1990. [40 C.F.R. Part 64 § 64.2(b)]

The following table lists all the specific pollutants for each unit meeting CAM applicability criteria and the determination of the applicability of CAM requirements for each.

40 C.F.R. Part 64 Applicability Table

Unit	Pollutant	CAM Required	Reason	Regulatory Authority
Boiler #4 Boiler #5/TO Boiler #6	SO_2	No	Emissions are greater than 100 tpy, but no control device is used.	40 C.F.R. § 64.2(a)(2)
Boiler #5/TO	NO_x	No	Emissions are greater than 100 tpy, but no control device is used.	40 C.F.R. § 64.2(a)(2)
	CO	No	Emissions are greater than 100 tpy, but no control device is used.	40 C.F.R. § 64.2(a)(2)
	VOC	No	Emissions are greater than 100 tpy, but no control device is used.	40 C.F.R. § 64.2(a)(2)
Reactors K1 – K8	VOC	No	Subject to standard in NESHAP 40 C.F.R. Part 63, Subparts OOO, EEEE, and FFFF proposed after Nov. 15, 1990	40 C.F.R. § 64.2(b)(1)(i)
Impregnators P4, P5, and P9	VOC	No	Subject to standard in NESHAP 40 C.F.R. Part 63, Subpart OOO proposed after Nov. 15, 1990	40 C.F.R. § 64.2(b)(1)(i)
Coater C4	VOC	No	Subject to standard in NESHAP 40 C.F.R. Part 63, Subpart OOO proposed after Nov. 15, 1990	40 C.F.R. § 64.2(b)(1)(i)
Treaters M1, M4, M5, and M7	VOC	No	No control device is used.	40 C.F.R. § 64.2(a)(2)
CPL Line #1	PM	Yes	Cartridge filters are used to limit emissions to a visible emissions standard.*	40 C.F.R. § 64.2(a)
Routers, Table Saws, Sanders	PM	Yes	Baghouses are used to limit emissions to a visible emissions standard.*	40 C.F.R. § 64.2(a)
Resin Crusher/Grinder	PM	No	Pre-control emissions are estimated to be less than 100 tpy.	40 C.F.R. § 64.2(a)(3)

* Due to the uncertainty involved in calculating the uncontrolled emissions from this equipment, it is unknown whether each unit exceeds a potential to emit of more than 100 tpy of PM. However, it has been conservatively assumed that pre-control emissions do exceed 100 tpy, and Pioneer will comply with CAM requirements for this unit.

Pioneer submitted a CAM plan for PM from the facility's process equipment as summarized below.

Unit	Eligible Pollutant	Indicator	Frequency
CPL Line #1	PM	Cartridge filter pressure drop	Monitored: Continuously Recorded: Monthly
		Visual inspections	Monitored: Daily Recorded: Daily
Routers, Table Saws, Sanders	PM	Baghouse pressure drop	Monitored: Continuously Recorded: Weekly
		Visual inspections	Monitored: Daily Recorded: Daily

The CAM requirements are incorporated in this license.

F. Fuel Sulfur Content Requirements

Pioneer is licensed to fire distillate fuel in Generator #2 and Fire Pump #1. With limited exceptions, no person shall import, distribute, or offer for sale any distillate fuel with a sulfur content greater than 0.0015% by weight (15 ppm) pursuant to 38 M.R.S. § 603-A(2)(A)(3). Therefore, the distillate fuel purchased or otherwise obtained for use at this facility shall not exceed 0.0015% by weight (15 ppm).

Pioneer is licensed to fire residual fuel in Boiler #4, Boiler #6, and Boiler #5/TO. With limited exceptions, no person shall import, distribute, or offer for sale any residual fuel oil with a sulfur content greater than 0.5% by weight pursuant to 38 M.R.S. §§ 603-A(2)(A)(1) and (2). Therefore, the residual fuel purchased or otherwise obtained for use at this facility shall not exceed 0.5% by weight.

G. Boiler #4

Boiler #4 is a 55.5 MMBtu/hr boiler manufactured in 1975 by Trane. Boiler #4 was first licensed on December 21, 1977, in Air Emission license #1233. Boiler #4 is licensed to fire #6 fuel oil with a sulfur content no greater than 0.5% by weight and natural gas. The unit is used to produce steam for the manufacturing process and space heating needs. Emissions exit through the facility's main stack (Stack #1), which is 115 feet above ground level.

Pioneer operates Boiler #4 primarily in the winter months to produce auxiliary steam to meet peak steam demands. Boiler #4 is also operated as a standby boiler in the event that Boiler #6 is not available. If fuel oil use in Boiler #4 exceeds 350,000 gallons in any calendar year, then Pioneer shall conduct performance tests for NO_x and a PM by July 1 of the following year to demonstrate compliance with the respective emission limits.

1. Visible Emissions

Stack #1 is subject to the following visible emissions standards pursuant to 06-096 C.M.R. ch. 101, §§ 4(A)(1), 4(A)(3), and 4(D):

During periods of time when only natural gas is being fired in the boilers exhausting to Stack #1, visible emissions shall not exceed 10% opacity on a six-minute block average basis.

During periods of time when #6 fuel oil is being fired in any boiler exhausting to Stack #1, visible emissions shall not exceed 20% opacity on a six-minute block average basis.

2. NO_x RACT

NO_x RACT for Boiler #4 was addressed in air emission license A-448-72-K-A/R issued 8/23/1995. By limiting the boiler's annual emissions of NO_x to less than 100 tpy, Boiler #4 was determined to be an auxiliary/standby boiler which is subject to the same tune-up and recordkeeping requirements as small boilers contained in section 3(J)(2) of 06-096 C.M.R. ch. 138. Those requirements include:

a. A tune-up procedure file must be kept on-site and made available to the Department upon request;

b. An oxygen/carbon monoxide curve or an oxygen/smoke curve must be kept on file;

c. Once the optimum excess oxygen setting has been determined, Pioneer must periodically verify and document that the setting remains at that value; and

d. If the minimum oxygen level found is substantially higher than the value provided by the combustion unit manufacturer, Pioneer must improve the fuel and air mixing, thereby allowing operation with less air.

Compliance with the annual NO_x limit of less than 100 tpy shall be demonstrated through records of all fuel use in Boiler #4 on a monthly and 12-month rolling total basis and stack test data (if available) or EPA's Compilation of Air Pollutant Emission Factors from Stationary Sources (AP-42). Calculations of NO_x emissions shall be performed at least once annually. Additional calculation of emissions to demonstrate compliance with this limit shall be performed upon request by the Department.

3. New Source Performance Standards (NSPS)

   Due to its year of manufacture, Boiler #4 is not subject to *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units* 40 C.F.R. Part 60, Subpart Dc for units greater than 10 MMBtu/hr manufactured after June 9, 1989. [40 C.F.R. § 60.40c]

4. National Emissions Standards for Hazardous Air Pollutants (NESHAP)

   Boiler #4 is located at a major source of HAP and therefore is not subject to *NESHAP for Area Sources: Industrial/Commercial/Institutional Boilers,* 40 C.F.R. Part 63, Subpart JJJJJJ.

   Boiler #4 is subject to *National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters,* 40 C.F.R. Part 63, Subpart DDDDD. Boiler #4 has the potential to be classified in more than one subcategory. At the time of this license renewal, Boiler #4 is considered an existing boiler in the "units designed to burn gas 1 fuel" subcategory.

   However, Boiler #4 could also operate as an existing boiler in the "units designed to burn liquid fuels" subcategory if it were to switch back to firing fuel oil. If this were the case, Boiler #4 would be in the "units designed to burn heavy liquid fuels" subcategory. Requirements for all potentially applicable subcategories are described in section III(A) below.

5. Emission Limits and Streamlining

   For Boiler #4 firing natural gas, a listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested (* denotes a request for streamlining), and the applicable emission limits can be found below. Limits are on a 1-hour block average basis unless otherwise stated.

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
PM	0.20 lb/MMBtu	06-096 C.M.R. ch. 103, § 2(A)(1)	0.20 lb/MMBtu
	2.5 lb/hr	06-096 C.M.R. ch. 115, BACT (A-448-77-7-M, 5/3/2012)	2.5 lb/hr
PM_{10}	2.5 lb/hr	06-096 C.M.R. ch. 115, BACT (A-448-77-7-M, 5/3/2012)	2.5 lb/hr
$PM_{2.5}$	2.5 lb/hr	06-096 C.M.R. ch. 140, BPT **Enforceable by State-only**	2.5 lb/hr **Enforceable by State-only**

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
SO_2	0.1 lb/hr	06-096 C.M.R. ch. 115, BACT (A-448-77-7-M, 5/3/2012)	0.1 lb/hr
NO_x	5.2 lb/hr	06-096 C.M.R. ch. 115, BACT (A-448-77-7-M, 5/3/2012)	5.2 lb/hr
	< 100 tpy 12-month rolling total basis	06-096 C.M.R. ch. 138, NO_x RACT (A-448-72-K-A/R, 8/23/1995)	< 100 tpy 12-month rolling total basis
CO	4.4 lb/hr	06-096 C.M.R. ch. 115, BACT (A-448-77-7-M, 5/3/2012)	4.4 lb/hr
VOC	0.3 lb/hr	06-096 C.M.R. ch. 115, BACT (A-448-77-7-M, 5/3/2012)	0.3 lb/hr
Visible Emissions	Addressed Previously		

For Boiler #4 firing #6 fuel oil, a listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested (* denotes a request for streamlining), and the applicable emission limits can be found below. Limits are on a 1-hour block average basis unless otherwise stated.

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
PM	0.20 lb/MMBtu	06-096 C.M.R. ch. 103, § 2(A)(1)	0.20 lb/MMBtu
	5.9×10^{-2} lb/MMBtu See Note 1	40 C.F.R. Part 63, Subpart DDDDD, Table 2, Row 15(b)	5.9×10^{-2} lb/MMBtu See Note 1
	11.1 lb/hr	06-096 C.M.R. ch. 140, BPT (A-448-72-K-A/R, 8/23/1995) **Enforceable by State-only**	11.1 lb/hr **Enforceable by State-only**
PM_{10}	11.1 lb/hr	06-096 C.M.R. ch. 140, BPT (A-448-72-K-A/R, 8/23/1995) **Enforceable by State-only**	11.1 lb/hr **Enforceable by State-only**
$PM_{2.5}$	11.1 lb/hr	06-096 C.M.R. ch. 140, BPT **Enforceable by State-only**	11.1 lb/hr **Enforceable by State-only**
SO_2	29.2 lb/hr	06-096 C.M.R. ch. 140, BPT **Enforceable by State-only**	29.2 lb/hr **Enforceable by State-only**

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
NO_x	33.3 lb/hr	06-096 C.M.R. ch. 140, BPT (A-448-72-K-A/R, 8/23/1995) **Enforceable by State-only**	33.3 lb/hr **Enforceable by State-only**
	< 100 tpy 12-month rolling total basis	06-096 C.M.R. ch. 138, NO_x RACT (A-448-72-K-A/R, 8/23/1995)	< 100 tpy 12-month rolling total basis
CO	22.2 lb/hr	06-096 C.M.R. ch. 140, BPT (A-448-72-K-A/R, 8/23/1995) **Enforceable by State-only**	22.2 lb/hr **Enforceable by State-only**
	130 ppmdv @ 3% O_2 See Note 1	40 C.F.R. Part 63, Subpart DDDDD, Table 2, Rows 15(a)	130 ppmdv @ 3% O_2 See Note 1
VOC	0.6 lb/hr	06-096 C.M.R. ch. 140, BPT (A-448-72-K-A/R, 8/23/1995) **Enforceable by State-only**	0.6 lb/hr **Enforceable by State-only**
HCl	1.1×10^{-3} lb/MMBtu See Note 1	40 C.F.R. Part 63, Subpart DDDDD, Table 2, Row 14(a)	1.1×10^{-3} lb/MMBtu See Note 1
Hg	7.3×10^{-7} lb/MMBtu See Note 1	40 C.F.R. Part 63, Subpart DDDDD, Table 2, Row 14(b)	7.3×10^{-7} lb/MMBtu See Note 1
Visible Emissions	Addressed Previously		

Note 1: Pursuant to 40 C.F.R. § 63.7500(f), this limit applies at all operating times except periods of startup and shutdown.

6. Emission Limit Compliance Methods

Compliance with the emission limits associated with Boiler #4 shall be demonstrated in accordance with the methods and frequencies indicated in the table below or other methods or frequencies as approved by the Department.

Pollutant	Applicable Emission Limits	Compliance Method	Frequency
PM	lb/MMBtu	Performance testing in accordance with 40 C.F.R. Part 60, App. A, Method 5	In accordance with 40 C.F.R. Part 63, Subpart DDDDD See Note 1
	lb/hr		
$PM_{10}/PM_{2.5}$	lb/hr	Performance testing in accordance with 40 C.F.R. Part 51, App. M, Methods 201 or 201A and Method 202	As requested
SO_2	lb/hr	Performance testing in accordance with 40 C.F.R. Part 60, App. A, Method 6	As requested

Pollutant	Applicable Emission Limits	Compliance Method	Frequency
NO_x	lb/hr	40 C.F.R. Part 60, App. A, Method 7E	As requested See Note 1
	tpy	Recordkeeping See Note 1	See Note 2
CO	ppmdv	Performance testing in accordance with 40 C.F.R. Part 60, App. A, Method 10	In accordance with 40 C.F.R. Part 63, Subpart DDDDD
	lb/hr		As requested
VOC	lb/hr	Performance testing in accordance with 40 C.F.R. Part 60, App. A, Method 25 or 25A	As requested
HCl	lb/MMBtu	Either performance testing or fuel analysis in accordance with 40 C.F.R. Part 63, Subpart DDDDD	In accordance with 40 C.F.R. Part 63, Subpart DDDDD
Hg	lb/MMBtu		
Visible Emissions	% opacity	Performance testing in accordance with 40 C.F.R. Part 60, App. A, Method 9	As requested

Note 1: If Pioneer combusts more than 350,000 gallons of #6 fuel oil in Boiler #4 in any calendar year, a performance test for PM and NO_x shall be conducted by July 1 of the following year. [06-096 C.M.R. 140, BPT (A-448-70-A-A/I, 4/20/2004)] **Enforceable by State-only**

Note 2: Compliance with the annual NO_x limit of less than 100 tpy shall be demonstrated through records of all fuel use in Boiler #4 on a monthly and 12-month rolling total basis. Calculations of NO_x emissions shall be performed at least once annually. Additional calculation of emissions to demonstrate compliance with this limit shall be performed upon request by the Department.

7. Periodic Monitoring

Pioneer shall record data and maintain records for the following periodic monitoring values for Boiler #4.

a. Hours of operation for Boiler #4 on a monthly and calendar year basis; [06-096 C.M.R ch. 137]
b. Types and amounts of each fuel fired on a monthly basis; [06-096 C.M.R. ch. 137 and 40 C.F.R. § 63.7555(d)(1)]
c. Sulfur content (% by weight) of all #6 fuel oil fired; [06-096 C.M.R. ch. 137]
d. Calculations of NO_x emissions performed at least once annually and upon request of the Department; [06-096 C.M.R. ch. 138] and
e. Recordkeeping in accordance with the requirements of 40 C.F.R. Part 63, Subpart DDDDD.

8. Parameter Monitors

   There are no Parameter Monitors required for Boiler #4.

H. Boiler #6

Boiler #6 was constructed in 1981 and installed as a replacement for Boiler #3 in 1995 (A-448-72-K-A/R, 8/23/1995). It is a Combustion Engineering model 24-VP-12WR package boiler with "D" type tube arrangement. The boiler contains a single Cohen DAZ burner which can fire either natural gas or #6 fuel oil. The boiler's combustion control system is a Taylor Instruments MOD-30 with oxygen trim. The rated heat input capacity of the boiler is 96.8 MMBtu/hr when firing natural gas and 96.6 MMBtu/hr when firing #6 fuel oil. The nominal steam generating capacity is 80,000 pounds per hour at 450 pounds per square inch gauge (psig).

Pioneer uses Boiler #6 to produce a majority of the steam required by the facility for the manufacturing process and space heating needs. Emissions exit through the facility's main stack (Stack #1), exhausting 115 feet above ground level.

1. Visible Emissions

   Visible emissions from Stack #1 were addressed in section II(G)(1) of this air emission license.

2. NO_x RACT

   Air emission license A-448-72-K-A/R (8/23/1995) describes how Pioneer optimized combustion of fuel oil in Boiler #6 in three ways. First, Pioneer adjusted the air register dampers to change the combustion air pattern in the combustion chamber. This adjustment lengthened the flame, which in turn lowered the flame temperature and reduced NO_x levels. Second, improvements were made to the combustion control system to reduce overcorrections to air/fuel ratios during load changes. These improvements reduced excess air levels and corresponding NO_x emissions during certain load changes. Third, Pioneer adjusted the oxygen setpoints in the combustion control system to achieve better control of excess air levels throughout the load range, thereby minimizing NO_x emissions.

   These adjustments along with NO_x emission limits of 0.47 lb/MMBtu and 45.5 lb/hr when firing #6 fuel oil were determined to be equivalent control strategies to a low-NO_x burner. Compliance is demonstrated through performance testing.

   Boiler #6 is considered a mid-size boiler, and Pioneer is located in the 1995 Moderate Nonattainment Area as defined in 06-096 C.M.R. ch. 138, § 2(A). Therefore, pursuant

to 06-096 C.M.R. ch. 138, § 1(A)(1), Boiler #6 is subject to the applicable standards in §§ 3(B)(1) and 6 of this rule.

Section 3(B)(1)(a) of 06-096 C.M.R. ch. 138 contains a standard for mid-size boilers located in a 1995 Moderate Nonattainment Area that fire oil unless the facility installs low-NO_x burners or equivalent control strategies. As described above, Boiler #6 was determined to be operating with a control strategy equivalent to low-NO_x burners. Therefore, this standard does not apply. There is no applicable standard in § 3(B)(1) for boilers that fire natural gas.

Section 6 of 06-096 C.M.R. ch. 138 addresses alternative emission limits for periods of startup and shutdown for affected units with an applicable standard pursuant to §§ 3 or 4 of this rule and that demonstrate compliance through use of a Continuous Emissions Monitoring System (CEMS). There is no applicable standard for Boiler #6 in §§ 3 or 4 of this rule nor does Boiler #6 operate a CEMS; therefore, § 6 of this rule is not applicable to Boiler #6.

In air emission license amendment A-448-71-O-M (issued 3/10/1997), NO_x RACT was amended such that Pioneer could apply to reduce the frequency of performance testing upon successful completion of two consecutive annual stack tests. Air emission license A-448-70-D-R/A (issued 12/30/2015) established that if Pioneer combusts more than 1,690,000 gallons of #6 fuel oil in any calendar year (equivalent to a 30% capacity factor), a performance test for NO_x must be conducted by July 1 of the following year.

3. New Source Performance Standards (NSPS)

   Due to its year of manufacture, Boiler #6 is not subject to *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units* 40 C.F.R. Part 60, Subpart Dc for units greater than 10 MMBtu/hr manufactured after June 9, 1989. [40 C.F.R. § 60.40c]

4. National Emissions Standards for Hazardous Air Pollutants (NESHAP)

   Boiler #6 is located at a major source of HAP and therefore is not subject to *NESHAP for Area Sources: Industrial/Commercial/Institutional Boilers,* 40 C.F.R. Part 63, Subpart JJJJJJ.

   Boiler #6 is subject to *National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters,* 40 C.F.R. Part 63, Subpart DDDDD. Boiler #6 has the potential to be classified in more than one subcategory. At the time of this license renewal, Boiler #6 is considered an existing boiler in the "units designed to burn gas 1 fuel" subcategory.

However, Boiler #6 could also operate as an existing boiler in the "units designed to burn liquid fuels" subcategory if it were to switch back to firing fuel oil. If this were the case, Boiler #6 would be in the "units designed to burn heavy liquid fuels" subcategory. Requirements for all potentially applicable subcategories are described in section III(A) below.

5. Emission Limits and Streamlining

For Boiler #6 firing natural gas, a listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested (* denotes a request for streamlining), and the applicable emission limits can be found below. Limits are on a 1-hour block average basis unless otherwise stated.

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
PM	0.20 lb/MMBtu	06-096 C.M.R. ch. 103, §§ 2(A)(1) and 4	0.02 lb/MMBtu *
	0.02 lb/MMBtu	06-096 C.M.R. ch. 115, BACT (A-448-72-K-A/R, 8/23/1995)	
	1.9 lb/hr	06-096 C.M.R. ch. 115, BACT (A-448-72-K-A/R, 8/23/1995)	1.9 lb/hr
PM_{10}	0.02 lb/MMBtu	06-096 C.M.R. ch. 115, BACT (A-448-72-K-A/R, 8/23/1995)	0.02 lb/MMBtu
	1.9 lb/hr	06-096 C.M.R. ch. 115, BACT (A-448-72-K-A/R, 8/23/1995)	1.9 lb/hr
$PM_{2.5}$	1.9 lb/hr	06-096 C.M.R. ch. 140, BPT **Enforceable by State-only**	1.9 lb/hr **Enforceable by State-only**
SO_2	0.01 lb/MMBtu	06-096 C.M.R. ch. 115, BACT (A-448-72-K-A/R, 8/23/1995)	0.01 lb/MMBtu
	1.0 lb/hr	06-096 C.M.R. ch. 115, BACT (A-448-72-K-A/R, 8/23/1995)	1.0 lb/hr
NO_x	0.15 lb/MMBtu	06-096 C.M.R. ch. 115, BACT (A-448-72-K-A/R, 8/23/1995)	0.15 lb/MMBtu
	14.5 lb/hr	06-096 C.M.R. ch. 115, BACT (A-448-72-K-A/R, 8/23/1995)	14.5 lb/hr
	86.6 tpy 12-month rolling total basis See Note 1	06-096 C.M.R. ch. 140, BPT (A-448-70-A-A/I, 4/20/2004) **Enforceable by State-only**	86.6 tpy 12-month rolling total basis **Enforceable by State-only**

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
CO	0.17 lb/MMBtu	06-096 C.M.R. ch. 115, BACT (A-448-72-K-A/R, 8/23/1995)	0.17 lb/MMBtu
	16.5 lb/hr	06-096 C.M.R. ch. 115, BACT (A-448-72-K-A/R, 8/23/1995)	16.5 lb/hr
VOC	0.01 lb/MMBtu	06-096 C.M.R. ch. 115, BACT (A-448-72-K-A/R, 8/23/1995)	0.01 lb/MMBtu
	1.0 lb/hr	06-096 C.M.R. ch. 115, BACT (A-448-72-K-A/R, 8/23/1995)	1.0 lb/hr
Visible Emissions	Addressed Previously		

Note 1: Condition (15)(A)(h) of Air Emission License A-448-70-A-A/I (4/20/2004) contains a typographical error. The limit listed was intended to be 86.6 tpy instead of 86.4 tpy.

For Boiler #6 firing #6 fuel oil, a listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested (* denotes a request for streamlining), and the applicable emission limits can be found below. Limits are on a 1-hour block average basis unless otherwise stated.

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
PM	0.20 lb/MMBtu	06-096 C.M.R. ch. 103, §§ 2(A)(1) and 4	0.15 lb/MMBtu *
	0.15 lb/MMBtu	06-096 C.M.R. ch. 115, BACT (A-448-72-K-A/R, 8/23/1995)	
	5.9×10^{-2} lb/MMBtu See Note 2	40 C.F.R. Part 63, Subpart DDDDD, Table 2, Row 15(b)	5.9×10^{-2} lb/MMBtu See Note 2
	14.5 lb/hr	06-096 C.M.R. ch. 115, BACT (A-448-72-K-A/R, 8/23/1995)	14.5 lb/hr
PM_{10}	0.15 lb/MMBtu	06-096 C.M.R. ch. 115, BACT (A-448-72-K-A/R, 8/23/1995)	0.15 lb/MMBtu
	14.5 lb/hr	06-096 C.M.R. ch. 115, BACT (A-448-72-K-A/R, 8/23/1995)	14.5 lb/hr
$PM_{2.5}$	14.5 lb/hr	06-096 C.M.R. ch. 140, BPT **Enforceable by State-only**	14.5 lb/hr **Enforceable by State-only**

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
SO_2	0.73 lb/MMBtu	06-096 C.M.R. ch. 115, BACT (A-448-72-K-A/R, 8/23/1995)	0.73 lb/MMBtu
	70.7 lb/hr	06-096 C.M.R. ch. 115, BACT (A-448-72-K-A/R, 8/23/1995)	50.8 lb/hr *
	50.8 lb/hr	06-096 C.M.R. ch. 140, BPT **Enforceable by State-only**	
NO_x	0.47 lb/MMBtu	06-096 C.M.R. ch. 138, NO_x RACT (A-448-72-K-A/R, 8/23/1995)	0.47 lb/MMBtu
	45.5 lb/hr	06-096 C.M.R. ch. 138, NO_x RACT (A-448-72-K-A/R, 8/23/1995)	45.5 lb/hr
	86.6 tpy 12-month rolling total basis See Note 1	06-096 C.M.R. ch. 140, BPT (A-448-70-A-A/I, 4/20/2004) **Enforceable by State-only**	86.6 tpy 12-month rolling total basis **Enforceable by State-only**
CO	0.17 lb/MMBtu	06-096 C.M.R. ch. 115, BACT (A-448-72-K-A/R, 8/23/1995)	0.17 lb/MMBtu
	130 ppmdv @ 3% O_2 See Note 2	40 C.F.R. Part 63, Subpart DDDDD, Table 2, Rows 15(a)	130 ppmdv @ 3% O_2 See Note 2
	16.5 lb/hr	06-096 C.M.R. ch. 115, BACT (A-448-72-K-A/R, 8/23/1995)	16.5 lb/hr
VOC	0.01 lb/MMBtu	06-096 C.M.R. ch. 115, BACT (A-448-72-K-A/R, 8/23/1995)	0.01 lb/MMBtu
	1.0 lb/hr	06-096 C.M.R. ch. 115, BACT (A-448-72-K-A/R, 8/23/1995)	1.0 lb/hr
HCl	1.1×10^{-3} lb/MMBtu See Note 2	40 C.F.R. Part 63, Subpart DDDDD, Table 2, Row 14(a)	1.1×10^{-3} lb/MMBtu See Note 2
Hg	7.3×10^{-7} lb/MMBtu See Note 2	40 C.F.R. Part 63, Subpart DDDDD, Table 2, Row 14(b)	7.3×10^{-7} lb/MMBtu See Note 2
Visible Emissions	Addressed Previously		

Note 1: Condition (15)(A)(h) of Air Emission License A-448-70-A-A/I (4/20/2004) contains a typographical error. The limit listed was intended to be 86.6 tpy instead of 86.4 tpy.

Note 2: Pursuant to 40 C.F.R. § 63.7500(f), this limit applies at all operating times except periods of startup and shutdown.

6. Emission Limit Compliance Methods

Compliance with the emission limits associated with Boiler #6 shall be demonstrated in accordance with the methods and frequencies indicated in the table below or other methods or frequencies as approved by the Department.

Pollutant	Applicable Emission Limits	Compliance Method	Frequency
PM	lb/MMBtu	Performance testing in accordance with 40 C.F.R. Part 60, App. A, Method 5	In accordance with 40 C.F.R. Part 63, Subpart DDDDD or as requested See Note 1
	lb/hr		
$PM_{10}/PM_{2.5}$	lb/MMBtu	Performance testing in accordance with 40 C.F.R. Part 51, App. M, Methods 201 or 201A and Method 202	As requested
	lb/hr		
SO_2	lb/MMBtu	Performance testing in accordance with 40 C.F.R. Part 60, App. A, Method 6	As requested
	lb/hr		
NO_x	lb/MMBtu	Performance testing in accordance with 40 C.F.R. Part 60, App. A, Method 7E	As requested See Note 1
	lb/hr		
	tpy	Recordkeeping See Note 2	See Note 2
CO	ppmdv	Performance testing in accordance with 40 C.F.R. Part 60, App. A, Method 10	In accordance with 40 C.F.R. Part 63, Subpart DDDDD
	lb/MMBtu		As requested
	lb/hr		
VOC	lb/MMBtu	Performance testing in accordance with 40 C.F.R. Part 60, App. A, Method 25 or 25A	As requested
	lb/hr		
HCl	lb/MMBtu	Either performance testing or fuel analysis in accordance with 40 C.F.R. Part 63, Subpart DDDDD	In accordance with 40 C.F.R. Part 63, Subpart DDDDD
Hg	lb/MMBtu		
Visible Emissions	% opacity	Performance testing in accordance with 40 C.F.R. Part 60, App. A, Method 9	As requested

Note 1: If Pioneer combusts more than 1,690,000 gallons of #6 fuel oil in Boiler #6 in any calendar year (equivalent to a 30% capacity factor), a performance test for PM and NO_x shall be conducted by July 1 of the following year. [06-096 C.M.R. ch. 138

(A-448-71-O-M, 3/10/1997) and 06-096 C.M.R. 140, BPT (A-448-70-D-R/A, 12/30/2015)]

Note 2: Compliance with the annual NO_x limit of 86.6 tpy shall be demonstrated through records of all fuel use in Boiler #6 on a monthly and 12-month rolling total basis. Calculations of NO_x emissions shall be performed at least once annually. Additional calculation of emissions to demonstrate compliance with this limit shall be performed upon request by the Department.

7. Periodic Monitoring

Pioneer shall record data and maintain records for the following periodic monitoring values for Boiler #6.

a. Hours of operation for Boiler #6 on a monthly and calendar year basis. [06-096 C.M.R ch. 137]
b. Types and amounts of each fuel fired on a monthly basis; [06-096 C.M.R. ch. 137 and 40 C.F.R. § 63.7555(d)(1)]
c. Sulfur content (% by weight) of all #6 fuel oil fired; [06-096 C.M.R. ch. 137]
d. Recordkeeping in accordance with the requirements of 40 C.F.R. Part 63, Subpart DDDDD.

8. Parameter Monitors

There are no Parameter Monitors required for Boiler #6.

I. Boiler #5/TO

Pioneer uses Boiler #5/TO to incinerate VOC- and HAP-laden emission streams from its manufacturing processes and provide steam for facility use. Boiler #5/TO acts as the primary control device for Treaters P4, P5, and P9 and Coater C4, and as a back-up control device for emissions from Reactors K1-K8. To maximize the benefit of firing fuel in this unit, Pioneer operates it both as a pollution control device and as a boiler by including heat recovery to produce steam for the facility.

Boiler #5/TO was manufactured by Hirt in 1982 and installed at the facility in 1983. It is capable of firing natural gas and #6 fuel oil. The rated heat input capacity of the boiler is 50.0 MMBtu/hr when firing natural gas and 39.5 MMBtu/hr when firing #6 fuel oil. Emissions exit through the facility's main stack (Stack #1), which is 115 feet above ground level.

1. Visible Emissions

Visible emissions from Stack #1 were addressed in section II(G)(1) of this air emission license.

2. NO_x RACT

   NO_x RACT for Boiler #5/TO was addressed in air emission license A-448-72-K-A/R (issued 8/23/1995). At that time an alternative RACT analysis was conducted that concluded that RACT was operation of Boiler #5/TO as configured so as to not compromise the unit's intended function of VOC destruction. This determination was included in a source-specific revision to Maine's SIP and approved by EPA. Pursuant to 06-096 C.M.R. ch. 138, § 1(A)(1)(b), this alternative RACT determination supersedes the applicable standards in § 3 of that rule.

   Section 6 of 06-096 C.M.R. ch. 138 addresses alternative emission limits for periods of startup and shutdown for affected units with an applicable standard pursuant §§ 3 or 4 of this rule and that demonstrate compliance through use of a CEMS. There is no applicable standard for Boiler #5/TO in §§ 3 or 4 of this rule nor does Boiler #5/TO operate a CEMS; therefore, § 6 of this rule is not applicable to Boiler #5/TO.

   Air emission license amendment A-448-71-O-M (issued 3/10/1997) modified Pioneer's NO_x RACT requirements and included the following requirement for Boiler #5/TO:

   Pioneer shall perform annual internal inspections of the ductwork that delivers emissions to Boiler #5/TO, as well as the burner components in Boiler #5/TO in order to maintain good combustion efficiency. Records of these inspections shall be maintained for at least six years and be made available to the Department upon request.

3. New Source Performance Standards (NSPS)

   Due to its year of manufacture, Boiler #5/TO is not subject to *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units* 40 C.F.R. Part 60, Subpart Dc for units greater than 10 MMBtu/hr manufactured after June 9, 1989. [40 C.F.R. § 60.40c]

   Pioneer previously burned a non-hazardous liquid waste in Boiler #5/TO. Boiler #5/TO is not subject to *Emissions Guidelines and Compliance Times for Commercial and Industrial Solid Waste Incineration Units* (CISWI), 40 C.F.R. Part 60, Subpart DDDD because Pioneer ceased burning liquid waste in Boiler #5/TO as of September 8, 2017, prior to the applicability date of the CISWI subpart (see 40 C.F.R. § 60.2535(b)(1)), and shall be prohibited from burning solid wastes moving forward.

4. National Emissions Standards for Hazardous Air Pollutants (NESHAP)

   Boiler #5/TO is located at a major source of HAP and therefore is not subject to *NESHAP for Area Sources: Industrial/Commercial/Institutional Boilers,* 40 C.F.R. Part 63, Subpart JJJJJJ.

Boiler #5/TO is not subject to *National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters,* 40 C.F.R. Part 63, Subpart DDDDD, because it is used as a control device for the facility's process sources and is subject to one or more other subparts of 40 C.F.R. Part 63. It is therefore not subject to Subpart DDDDD pursuant to § 63.7491(h).

When used as a control device, Boiler #5/TO is subject to requirements in the following subparts:

National Emission Standards for Hazardous Air Pollutant Emissions: Manufacture of Amino/Phenolic Resins, 40 C.F.R. Part 63, Subpart OOO

National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline), 40 C.F.R. Part 63, Subpart EEEE

National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing, 40 C.F.R. Part 63, Subpart FFFF

Applicable requirements for Boiler #5/TO associated with these regulations are addressed in their separate sections below. [Sections III(B), III(C), III(D)]

5. Emission Limits and Streamlining

For Boiler #5/TO firing natural gas, a listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested (* denotes a request for streamlining), and the applicable emission limits can be found below. Limits are on a 1-hour block average basis unless otherwise stated.

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
PM	0.20 lb/MMBtu	06-096 C.M.R. ch. 103, § 2(A)(1)	0.05 lb/MMBtu *
	0.05 lb/MMBtu	06-096 C.M.R. ch. 140, BPT **Enforceable by State-only**	
	2.5 lb/hr	06-096 C.M.R. ch. 140, BPT **Enforceable by State-only**	2.5 lb/hr
PM_{10}	2.5 lb/hr	06-096 C.M.R. ch. 140, BPT **Enforceable by State-only**	2.5 lb/hr
$PM_{2.5}$	2.50 lb/hr	06-096 C.M.R. ch. 140, BPT **Enforceable by State-only**	2.50 lb/hr **Enforceable by State-only**

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
SO_2	0.1 lb/hr	06-096 C.M.R. ch. 140, BPT **Enforceable by State-only**	0.1 lb/hr
NO_x	5.0 lb/hr	06-096 C.M.R. ch. 140, BPT **Enforceable by State-only**	5.0 lb/hr
CO	4.2 lb/hr See Note 1	06-096 C.M.R. ch. 140, BPT **Enforceable by State-only**	4.2 lb/hr See Note 1 **Enforceable by State-only**
	135.3 lb/hr See Note 2	06-096 C.M.R. ch. 115, BACT (A-448-77-6-A, 2/12/2013)	135.3 lb/hr See Note 2
	329.0 tpy 12-month rolling total basis	06-096 C.M.R. ch. 115, BACT (A-448-77-6-A, 2/12/2013)	329.0 tpy 12-month rolling total basis
VOC	0.3 lb/hr	06-096 C.M.R. ch. 140, BPT **Enforceable by State-only**	0.3 lb/hr
Visible Emissions	Addressed Previously		

Note 1: Applies when Boiler #5/TO is operated as a boiler only.
Note 2: Applies when Boiler #5/TO is operated as both a boiler and a pollution control device.

For Boiler #5/TO firing #6 fuel oil, a listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested (* denotes a request for streamlining), and the applicable emission limits can be found below. Limits are on a 1-hour block average basis unless otherwise stated.

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
PM	0.20 lb/MMBtu	06-096 C.M.R. ch. 103, § 2(A)(1)	0.20 lb/MMBtu
	7.90 lb/hr	06-096 C.M.R. ch. 140, BPT **Enforceable by State-only**	7.90 lb/hr **Enforceable by State-only**
PM_{10}	7.90 lb/hr	06-096 C.M.R. ch. 140, BPT **Enforceable by State-only**	7.90 lb/hr **Enforceable by State-only**
$PM_{2.5}$	7.90 lb/hr	06-096 C.M.R. ch. 140, BPT **Enforceable by State-only**	7.90 lb/hr **Enforceable by State-only**
SO_2	20.75 lb/hr	06-096 C.M.R. ch. 140, BPT **Enforceable by State-only**	20.75 lb/hr **Enforceable by State-only**

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
NO_x	23.7 lb/hr	06-096 C.M.R. ch. 138, NO_x RACT (A-448-72-K-A/R, 8/23/1995)	23.7 lb/hr
CO	60.0 lb/hr See Note 1	06-096 C.M.R. ch. 140, BPT (A-448-72-K-A/R, 8/23/1995) **Enforceable by State-only**	60.0 lb/hr See Note 1 **Enforceable by State-only**
	135.3 lb/hr See Note 2	06-096 C.M.R. ch. 140, BACT (A-448-77-6-A, 2/12/2013)	135.3 lb/hr See Note 2
	329.0 tpy 12-month rolling total basis	06-096 C.M.R. ch. 115, BACT (A-448-77-6-A, 2/12/2013)	329.0 tpy 12-month rolling total basis
VOC	30.0 lb/hr	06-096 C.M.R. ch. 140, BPT (A-448-72-K-A/R, 8/23/1995) **Enforceable by State-only**	30.0 lb/hr **Enforceable by State-only**
Visible Emissions	Addressed Previously		

Note 1: Applies when Boiler #5/TO is operated as a boiler only.
Note 2: Applies when Boiler #5/TO is operated as both a boiler and a pollution control device.

6. Emission Limit Compliance Methods

a. Short-Term Emission Limits

Compliance with the short-term emission limits associated with Boiler #5/TO shall be demonstrated in accordance with the methods and frequencies indicated in the table below or other methods or frequencies as approved by the Department.

Pollutant	Applicable Emission Limits	Compliance Method	Frequency
PM	lb/MMBtu	Performance testing in accordance with 40 C.F.R. Part 60, App. A, Method 5	As requested See Note 1
	lb/hr		
$PM_{10}/PM_{2.5}$	lb/hr	Performance testing in accordance with 40 C.F.R. Part 51, App. M, Methods 201 or 201A and Method 202	As requested
SO_2	lb/hr	Performance testing in accordance with 40 C.F.R. Part 60, App. A, Method 6	As requested
NO_x	lb/hr	Performance testing in accordance with 40 C.F.R. Part 60, App. A, Method 7E	As requested See Note 1

Pollutant	Applicable Emission Limits	Compliance Method	Frequency
CO	lb/hr	Performance testing in accordance with 40 C.F.R. Part 60, App. A, Method 10	As requested
VOC	lb/hr	Performance testing in accordance with 40 C.F.R. Part 60, App. A, Method 25 or 25A	As requested
Visible Emissions	% opacity	Performance testing in accordance with 40 C.F.R. Part 60, App. A, Method 9	As requested

Note 1: If Pioneer combusts more than 692,000 gallons of #6 fuel oil in Boiler #5/TO in any calendar year (equivalent to a 30% capacity factor), a performance test for PM and NO_x shall be conducted by July 1 of the following year. [06-096 C.M.R. 140, BPT (A-448-70-D-R/A, 12/30/2015)] **Enforceable by State-only**

b. Annual Emission Limits

In 2012, Pioneer conducted a series of stack tests and other monitoring under multiple operating scenarios that demonstrated that emissions of CO from Boiler #5/TO can vary significantly based on the fuel fired and the combination of process equipment being controlled. NSR License A-448-77-6-A (issued 2/12/2013) established a short-term CO emission limit for Boiler #5/TO of 135.3 lb/hr and an annual CO emission limit of 329.0 tpy. CO emission rates used to demonstrate compliance with the annual limit were also established for different operating scenarios. Some of these emission rates were revised in NSR License A-448-77-12-M (issued 5/28/2019).

Compliance with the annual CO limit of 329.0 tpy shall be demonstrated as described below.

(1) Pioneer shall monitor Impregnator P5 minutes of operation monthly. Impregnator P5 minutes of operation shall be documented through both paper log sheets that the machine operators complete each day and in minute-by-minute data recorded in the facility's computer database system. [06-096 C.M.R. ch. 115, BACT (A-448-77-6-A, 2/12/2013)]

(2) When Impregnator P5 is controlled by Boiler #5/TO and Boiler #5/TO is firing #6 fuel oil, Pioneer shall calculate CO emissions on a monthly and 12-month rolling total using the test data of 135.3 lbs/hr CO. Pioneer shall calculate CO emissions by multiplying the lb/hr emission rate by the number of hours of operation [06-096 C.M.R. ch. 115, BACT (A-448-77-6-A, 2/12/2013)]

(3) When Boiler #5/TO is firing #6 fuel oil and not being used ton control Impregnator P5, Pioneer will calculate CO emissions on a monthly and 12-month rolling total using the CO emission rate of 15.7 lb/hr. Pioneer shall calculate CO emissions by multiplying the license lb/hr emission rate by the number of hours of operation. [06-096 C.M.R. ch. 115, BACT (A-448-77-6-A, 2/12/2013)]

(4) When firing natural gas, Pioneer shall calculate CO emissions on a monthly and 12-month rolling total basis using the following emission rates for each operating scenario:

Emission Unit Combination	Average CO Emission Rate (lb/hr) while Burning Natural Gas
Specialty Resins only	0.60
Specialty Resins + P9	12.5
Impregnator P5 only	13.3
Specialty Resins + P5	15.7
Specialty Resins + P5 + P9	17.5
Specialty Resins + P4 + P5	32.9
Specialty Resins + C4 + P5	42.0
Specialty Resins + C4 + P4 + P5 + P9	78.4

Pioneer shall calculate the CO emissions from Boiler #5/TO by multiplying the above lb/hr emission rate by the number of hours of operation for each operating scenario. The minutes of operation for Impregnators P4, P5, and P9 as well as Coater C4 shall be documented through both paper log sheets that the machine operators complete each day and in minute-by-minute data recorded in the facility's computer database system. Operations of the Specialty Resins operations (K1 – K8) shall be recorded in paper batch logs that are written by the reactor operators, and the Specialty Resins Department's diverter damper position (vented to Thermal Oxidizer or vented to atmosphere) shall be recorded every 15 minutes in the Citect computer database system. [06-096 C.M.R. ch. 115, BACT (A-448-77-12-M, 5/28/2019)]

7. Periodic Monitoring

Pioneer shall record data and maintain records for the following periodic monitoring values for Boiler #5/TO. Other monitoring and recordkeeping requirements may be required by regulations addressed elsewhere in this license.

a. Hours of operation for Boiler #5/TO on a monthly and calendar year basis. [06-096 C.M.R ch. 137]
b. Types and amounts of each fuel fired on a monthly basis; [06-096 C.M.R. chs. 137] and

c. Sulfur content (% by weight) of all #6 fuel oil fired. [06-096 C.M.R. ch. 137]

8. Parameter Monitors

Parameter monitors for Boiler #5/TO are addressed by the underlying regulation for the equipment being controlled and covered elsewhere in this license.

J. Process Heater #8

Process Heater #8 is used to heat thermal oil which is then used to heat resins and/or raw materials for the reactors. Process Heater #8 was installed in 1994 and has a maximum heat input capacity of 5.0 MMBtu/hr firing natural gas. Emissions exit through Stack #2 which is 50 feet above ground level.

1. Visible Emissions

Process Heater #8 is subject to the following visible emissions standards pursuant to 06-096 C.M.R. ch. 101, § 4(A)(3):

> Visible emissions from Process Heater #8 shall not exceed 10% opacity on a six-minute block average basis.

2. NO_x RACT

Process Heater #8 has potential emissions of NO_x of less than 10 tpy and is exempt from the requirements of 06-096 C.M.R. ch. 138 pursuant to § 1(B)(1).

3. New Source Performance Standards (NSPS)

Due to its size, Process Heater #8 is not subject to *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units* 40 C.F.R. Part 60, Subpart Dc for units greater than 10 MMBtu/hr manufactured after June 9, 1989. [40 C.F.R. § 60.40c]

4. National Emissions Standards for Hazardous Air Pollutants (NESHAP)

Process Heater #8 is located at a major source of HAP and therefore is not subject to *NESHAP for Area Sources: Industrial/Commercial/Institutional Boilers,* 40 C.F.R. Part 63, Subpart JJJJJJ.

Process Heater #8 is subject to *National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters,* 40 C.F.R. Part 63, Subpart DDDDD. This unit is an existing process

heater in the "units designed to burn gas 1 fuel" subcategory. Applicable requirements are described in section III(A) below.

5. Emission Limits and Streamlining

For Process Heater #8, a listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested (* denotes a request for streamlining), and the applicable emission limits can be found below. Limits are on a 1-hour block average basis unless otherwise stated.

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
PM	0.12 lb/MMBtu	06-096 C.M.R. ch. 103, § 2(B)(1)(a)	0.05 lb/MMBtu *
	0.05 lb/MMBtu	06-096 C.M.R. ch. 140, BPT **Enforceable by State-only**	
	0.25 lb/hr	06-096 C.M.R. ch. 140, BPT **Enforceable by State-only**	0.25 lb/hr **Enforceable by State-only**
PM_{10}	0.25 lb/hr	06-096 C.M.R. ch. 140, BPT **Enforceable by State-only**	0.25 lb/hr **Enforceable by State-only**
$PM_{2.5}$	0.25 lb/hr	06-096 C.M.R. ch. 140, BPT **Enforceable by State-only**	0.25 lb/hr **Enforceable by State-only**
NO_x	0.49 lb/hr	06-096 C.M.R. ch. 140, BPT **Enforceable by State-only**	0.49 lb/hr **Enforceable by State-only**
CO	0.41 lb/hr	06-096 C.M.R. ch. 140, BPT **Enforceable by State-only**	0.41 lb/hr **Enforceable by State-only**
VOC	0.03 lb/hr	06-096 C.M.R. ch. 140, BPT **Enforceable by State-only**	0.03 lb/hr **Enforceable by State-only**
Visible Emissions	Addressed Previously		

6. Emission Limit Compliance Methods

Compliance with emission limits associated with Process Heater #8 shall be demonstrated in accordance with the appropriate test methods upon request of the Department.

7. Periodic Monitoring

Pioneer shall record data and maintain records for the following periodic monitoring values for Process Heater #8.

a. Hours the unit was active or operating on a monthly and calendar year basis; [06-096 C.M.R ch. 137]
b. Types and amounts of each fuel fired on a monthly basis; [06-096 C.M.R. ch. 137] and
c. Recordkeeping in accordance with the requirements of 40 C.F.R. Part 63, Subpart DDDDD.

8. Parameter Monitors

There are no Parameter Monitors required for Process Heater #8.

K. Thermal Oil Heater #1

Thermal Oil Heater #1 heats a thermal oil used to provide heat to the press section of CPL Line #1. The burner is rated at 2.55 MMBtu/hr and fires natural gas. Emissions from both CPL Line #1 and Thermal Oil Heater #1 exit through a shared stack (Stack #4) which is 40.2 feet above ground level.

1. New Source Review (NSR) Requirements

The installation of Thermal Oil Heater #1 was addressed in NSR license A-448-77-9-A (NSR #9), issued 7/21/2017. In addition to the emission limits described later, NSR #9 included the following requirements incorporated through BACT:

Thermal Oil Heater #1 is licensed to fire natural gas. Pioneer shall keep records of fuel use on a monthly and 12-month rolling total basis.

2. Visible Emissions

Stack #4 is used to exhaust emissions both from Thermal Oil Heater #1 and the non-particulate matter process emissions from CPL Line #1.

The following visible emission limit was established pursuant to 06-096 C.M.R. ch. 115, BACT:

> Visible emissions from Stack #4 shall not exceed 10% opacity on a six-minute block average basis. [A-448-77-9-A, 7/21/2017)]

Stack #4 is subject to the following visible emission standard pursuant to 06-096 C.M.R. ch. 101, §§ 4(B)(4) and (D):

> Visible emissions from Stack #4 shall not exceed 20% opacity on a six-minute block average basis.

The Department has determined that the applicable BACT limit is more stringent than the limit established by 06-096 C.M.R. ch. 101. The visible emission limit has been streamlined to the more stringent limit, and only this more stringent limit shall be included in the Order of this air emission license.

3. NO_x RACT

   Thermal Oil Heater #1 has potential emissions of NO_x of less than 10 tpy and is exempt from the requirements of 06-096 C.M.R. ch. 138 pursuant to § 1(B)(1).

4. New Source Performance Standards (NSPS)

   Due to its size, Thermal Oil Heater #1 is not subject to *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units* 40 C.F.R. Part 60, Subpart Dc for units greater than 10 MMBtu/hr manufactured after June 9, 1989. [40 C.F.R. § 60.40c]

5. National Emissions Standards for Hazardous Air Pollutants (NESHAP)

   Thermal Oil Heater #1 is located at a major source of HAP and therefore is not subject to *NESHAP for Area Sources: Industrial/Commercial/Institutional Boilers,* 40 C.F.R. Part 63, Subpart JJJJJJ.

   Thermal Oil Heater #1 is subject to *National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters,* 40 C.F.R. Part 63, Subpart DDDDD. This unit is an existing process heater in the "units designed to burn gas 1 fuel" subcategory. Applicable requirements are described in section III(A) below.

6. Emission Limits and Streamlining

For Thermal Oil Heater #1, a listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested (* denotes a request for streamlining), and the applicable emission limits can be found below. Limits are on a 1-hour block average basis unless otherwise stated.

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
PM	0.02 lb/hr	06-096 C.M.R. ch. 115, BACT (A-448-77-9-A, 7/21/2017)	0.02 lb/hr
PM_{10}	0.02 lb/hr	06-096 C.M.R. ch. 115, BACT (A-448-77-9-A, 7/21/2017)	0.02 lb/hr
$PM_{2.5}$	0.02 lb/hr	06-096 C.M.R. ch. 115, BACT (A-448-77-9-A, 7/21/2017)	0.02 lb/hr
NO_x	0.25 lb/hr	06-096 C.M.R. ch. 115, BACT (A-448-77-9-A, 7/21/2017)	0.25 lb/hr
CO	0.21 lb/hr	06-096 C.M.R. ch. 115, BACT (A-448-77-9-A, 7/21/2017)	0.21 lb/hr
VOC	0.01 lb/hr	06-096 C.M.R. ch. 115, BACT (A-448-77-9-A, 7/21/2017)	0.01 lb/hr
Visible Emissions	Addressed Previously		

7. Emission Limit Compliance Methods

Compliance with emission limits associated with Thermal Oil Heater #1 shall be demonstrated in accordance with the appropriate test methods upon request of the Department.

8. Periodic Monitoring

Pioneer shall record data and maintain records for the following periodic monitoring values for Thermal Oil Heater #1.

a. Hours each unit was active or operating on a monthly and calendar year basis; [06-096 C.M.R ch. 137]
b. Types and amounts of each fuel fired on a monthly basis; [06-096 C.M.R. ch. 137 and 06-096 C.M.R. ch. 115, BACT (A-488-77-9-A, 7/21/2017)] and
c. Recordkeeping in accordance with the requirements of 40 C.F.R. Part 63, Subpart DDDDD.

9. Parameter Monitors

There are no Parameter Monitors required for Thermal Oil Heater #1.

L. RTO #1

In 2014, Pioneer installed a regenerative thermal oxidizer (RTO #1) to control emissions of VOC and HAP from Reactors K1-K8. RTO #1 may also be used to control VOC and HAP emissions from Impregnators P4, P5, and P9 and Coater C4.

The RTO was manufactured in 2000 by GEOENERGY of Seattle, Washington. RTO #1 is rated at 3,500 scfm firing natural gas. Its auxiliary burner has a maximum heat input capacity of 1.5 MMBtu/hour. Emissions exit through Stack #3 which is 50 feet above ground level.

1. Visible Emissions

The following visible emission limit was established pursuant to 06-096 C.M.R. ch. 115, BACT:

> Visible emissions from RTO #1 shall not exceed 10% opacity on a six-minute block average basis. [A-448-77-8-A, 5/1/2014)]

RTO #1 is subject to the following visible emission standard pursuant to 06-096 C.M.R. ch. 101, § 4(A)(8)(a):

> Visible emissions from RTO #1 shall not exceed 30% opacity on a six-minute block average basis, except for periods of startup, shutdown or malfunction during which time Pioneer shall either meet this normal operating visible emissions standard or the following alternative visible emissions standard.
>
> During periods of startup, shutdown, or malfunction, visible emissions from RTO #1 shall not exceed 40% opacity on a six-minute block average basis. This alternative visible emissions standard shall not be utilized for more than two hours (20 consecutive six-minute block averages) per event.

The Department has determined that the applicable BACT limit is more stringent than the limit established by 06-096 C.M.R. ch. 101. The visible emission limit has been streamlined to the more stringent limit, and only this more stringent limit shall be included in the Order of this air emission license.

2. New Source Performance Standards (NSPS)

   RTO #1 was originally licensed in NSR License A-448-77-8-A (NSR #8) issued 5/1/2014. At the time, it was intended to both control VOC and HAP emissions from the reactors and to incinerate a liquid waste stream. As such, NSR #8 included applicable requirements from *Emission Guidelines and Compliance Times for Commercial and Industrial Solid Waste Incineration Units*, 40 C.F.R. Part 60, Subpart DDDD, and incorporated them as BACT.

   After discussions with EPA, RTO #1 was later determined to have undergone a modification to its burner that would designate the unit as "new" instead of "existing." This would make the requirements of *Standards of Performance for Commercial and Industrial Solid Waste Incineration Units*, 40 C.F.R. Part 60, Subpart CCCC, applicable instead of Subpart DDDD if burning the liquid waste stream.

   Pioneer ceased burning liquid waste at the facility as of September 8, 2017, and is prohibited from burning solid wastes moving forward. Therefore, RTO #1 is not subject to 40 C.F.R. Part 60, Subpart CCCC. Therefore, the requirements of 40 C.F.R. Part 60, Subpart DDDD incorporated in NSR #8 through BACT are considered obsolete and no longer in effect.

3. National Emissions Standards for Hazardous Air Pollutants (NESHAP)

   RTO #1 is subject to applicable requirements pursuant to the following regulations:

   National Emission Standards for Hazardous Air Pollutant Emissions: Manufacture of Amino/Phenolic Resins, 40 C.F.R. Part 63, Subpart OOO

   National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline), 40 C.F.R. Part 63, Subpart EEEE

   National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing, 40 C.F.R. Part 63, Subpart FFFF

   Applicable requirements for RTO #1 of these regulations are addressed in their separate sections below. [Sections III(B), III(C), III(D)]

4. Emission Limits and Streamlining

For combustion of natural gas in RTO #1, a listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested (* denotes a request for streamlining), and the applicable emission limits can be found below. Limits are on a 1-hour block average basis unless otherwise stated.

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
PM	0.08 lb/hr	06-096 C.M.R. ch. 140, BPT (A-448-70-D-R/A, 12/30/2015) **Enforceable by State-only**	0.08 lb/hr **Enforceable by State-only**
PM_{10}	0.08 lb/hr	06-096 C.M.R. ch. 140, BPT (A-448-70-D-R/A, 12/30/2015) **Enforceable by State-only**	0.08 lb/hr **Enforceable by State-only**
$PM_{2.5}$	0.08 lb/hr	06-096 C.M.R. ch. 140, BPT **Enforceable by State-only**	0.08 lb/hr **Enforceable by State-only**
SO_2	0.01 lb/hr	06-096 C.M.R. ch. 140, BPT (A-448-70-D-R/A, 12/30/2015) **Enforceable by State-only**	0.01 lb/hr **Enforceable by State-only**
NO_x	0.22 lb/hr	06-096 C.M.R. ch. 140, BPT (A-448-70-D-R/A, 12/30/2015) **Enforceable by State-only**	0.22 lb/hr **Enforceable by State-only**
CO	0.12 lb/hr	06-096 C.M.R. ch. 140, BPT (A-448-70-D-R/A, 12/30/2015) **Enforceable by State-only**	0.12 lb/hr **Enforceable by State-only**
Visible Emissions	Addressed Previously		

5. Emission Limit Compliance Methods

Compliance with the emission limits associated with the combustion of natural gas in RTO #1 shall be demonstrated in accordance with the appropriate test methods upon request of the Department.

6. Periodic Monitoring

Pioneer shall record data and maintain records for the following periodic monitoring values for RTO #1. Other monitoring and recordkeeping requirements may be required by regulations addressed elsewhere in this license.

a. Hours of operation for RTO #1 on a monthly and calendar year basis; and [06-096 C.M.R ch. 137]

b. Amount of fuel fired on a monthly basis. [06-096 C.M.R. chs. 137]

7. Parameter Monitors

Parameter monitors for RTO #1 are addressed by the underlying regulation for the equipment being controlled and covered elsewhere in this license.

M. Reactors

Pioneer has eight reactor vessels in which resins are manufactured. The capacities of and specific products from these reactors are as follows:

Reactor	Capacity	Primary Product	But is Sometimes Used to Make…
K1	3,000 gal	Melamine Resins	Urea Resins
K2	1,200 gal		
K3	5,000 gal	Used as Blending Tank to combine phenolic resins and resin extenders with methanol and/or acetone	Urea Resins
K4	3,500 gal	Polyester and Polyamide Resins	N/A
K5	3,500 gal		
K6	5,000 gal		
K7	100 gal		
K8	3,500 gal	Polyester and Polyamide Resins	Melamine Resin

Reactors K1 and K2 primarily produce melamine resins and occasionally urea resins.

Reactor K3 was previously used to produce phenolic resins; however, Pioneer currently purchases phenolic resins, and Reactor K3 is now primarily used as a blending tank where phenolic resins and resin extenders are combined with methanol and/or acetone. Reactor K3 was also previously used to blend a resin additive (LE-4060) with acetone before blending the mixture with phenolic resin. The use of the LE-4060 additive was discontinued in 2010 and will no longer be addressed in this license. Reactor K3 is also occasionally used to produce urea resins.

Reactors K4 – K8 are used to produce polyester and polyamide resins. Reactor K8 may also produce melamine resins.

For all reactors, powdered raw materials are added (charged) to liquid raw materials in the reactors through a charging hatch or a direct line. Charging operations last approximately one to three hours. The charging hatch is then closed while the chemical reaction takes place. Process testing occurs as samples are collected during the cook cycle. After completion, the resulting resin may be pumped into storage tanks to be used within the facility or for shipment off-site. Polyester resins are discharged, or letdown, from the

reactors into drums as a liquid or into pans to cool and solidify. The solidified resins may then be crushed into specified particle sizes**.**

1. VOC RACT and New Source Review (NSR) Requirements

   Emissions of VOC and HAP from Reactors K1 – K8 are controlled by either a condenser or thermal oxidation as described below. Control requirements for the reactors are included in VOC RACT determination A-448-71-P-A (issued 6/16/1997), which was included as a source-specific revision to Maine's SIP.

   Boiler #5/TO is the primary thermal oxidation control device for Reactors K1 – K8.

   In 2014, Pioneer installed a regenerative thermal oxidizer (RTO #1) as a back-up thermal oxidation control device for emissions of VOC and HAP from Reactors K1 – K8 in lieu of Boiler #5/TO.

   a. Reactors K1 and K2: Melamine and Urea (Amino) Resin Production

      HAP emissions, primarily formaldehyde, are generated from the production of melamine resins in Reactors K1 and K2. During the manufacture of melamine and urea resin in Reactors K1 and K2, the reactor vessels are closed, and the emissions are captured and conveyed to Boiler #5/TO or RTO#1 for destruction. These and other control requirements pursuant to 40 C.F.R. Part 63, Subpart OOO are addressed in section III(B) of this license.

   b. Reactors K3: Resin Blender / Urea Resin Production

      VOC and HAP emissions are generated from the blending of phenolic resins and resin extenders with methanol and/or acetone or other VOC in Reactor K3.

      When producing urea resins or blending phenolic resins, Pioneer vents the emissions from the main outlet vent on Reactor K3 through a condenser. The temperature of the coolant on the inlet side of Reactor K3 condenser shall be maintained below 100 degrees Fahrenheit (°F) while the reactor is in operation and using this control method. During all operating times where the condenser is used, Pioneer shall monitor and record the temperature of the coolant on the inlet side of the condenser at least once every six hours.

      Other production from Reactor K3 uses methanol or another VOC/HAP to blend the phenolic extender, rather than acetone. In such cases, emissions are vented to Boiler #5/TO or RTO#1. The control device shall be operated to achieve a minimum VOC/HAP destruction efficiency of 95%.

(1) Operating Scenarios

In NSR license A-448-71-T-A (1/22/2003), Pioneer licensed process changes to Reactor K3 that allowed operational flexibility for raw material substitution of methanol for acetone in blending phenolic extender products. The Department approved the operation of Reactor K3 and associated paper impregnating and treating operations under the following four operating scenarios.

Operating Scenario 1: Blend the phenolic extender with acetone and resins, on-site, in Reactor K3.

Operating Scenario 2: Blend the phenolic extender with methanol and resins, on-site, in Reactor K3.

Operating Scenario 3: Purchase from an external supplier a phenolic extender/phenolic resin blend and a urea-formaldehyde resin/phenolic extender that includes methanol in the phenolic extender blend.

Operating Scenario 4: Use phenolic resins that will not require addition of the phenolic extender/solvent solution.

Pioneer shall maintain chemical use records documenting compliance with these operating scenarios.

(2) Pioneer shall calculate and document VOC emissions on a monthly basis from Reactor K3 and the associated paper impregnating and treating operations to demonstrate that the VOC emissions from Operating Scenarios 2 and 3 do not exceed 30 tpy[1]. Calculations shall be based on the following assumptions:

(i) Zero emissions of VOC from Operating Scenario 1 (because acetone is neither a VOC nor a HAP);
(ii) Operating Scenarios 2 and 3 calculations will track VOC emissions of only methanol (because the scenarios are the blending of phenolic extender material with methanol);
(iii) Operating Scenario 4 represents an activity addressed elsewhere in the license (coating with phenolic resins);
(iv) 100% volatilization of methanol;
(v) 100% capture of methanol emissions from both Reactor K3 and from the permanent total enclosures around the paper Impregnators[2] P4 and P5 and Coater C4 where the phenolic coating will be applied; and

[1] These requirements originate in Air Emission License A-448-71-T-A (issued 1/22/2003). A limit of 30 tpy of VOC was established to keep the modification minor.
[2] Air Emission License A-448-71-T-A included emissions from Impregnator P1in these calculations. Impregnator P1 no longer exists, and references to it have been removed from this license.

(vi)95% destruction of VOC and HAP in RTO #1 or Boiler #5/TO.

(3) Pioneer shall maintain records of the following for each specified operating scenario to document compliance with the 30 tpy VOC emission limit from Operating Scenarios 2 and 3.

(i) Operating Scenario 2 (blend phenolic extender with methanol onsite):

1. Monthly records of the amount of methanol used (lb);
2. 12-month rolling total of the amount of methanol used (lb);
3. Monthly and 12-month rolling total of VOC emission calculations using the following formula:

$$VOC2 = \frac{(\text{pounds methanol}) * 5\%}{2000 \text{ lb/ton}} = \text{tons VOC}$$

(ii) Operating Scenario 3 (purchased phenolic extender/phenolic resin blend):

1. Monthly records of the amount of purchased phenolic extender/phenolic resin blend purchased (lb) and the percent methanol by weight of the resin blend;
2. 12-month rolling total of the amount of phenolic extender/phenolic resin blend purchased (lb);
3. Monthly and 12-month rolling total of VOC emission calculations using the following formula:

$$VOC3 = \frac{(\text{pounds phenolic extender blend}) * (\%\text{ methanol}) * 5\%}{2000 \text{ lb/ton}} = \text{tons VOC}$$

(iii)Operating Scenarios 2 and 3: Total VOC Emissions

The monthly and 12-month rolling total of VOC emissions in tpy for Operating Scenarios 2 and 3 combined shall be calculated using the following equation:

VOC flexible operating scenarios (tons) = VOC2 +VOC3 $\leq$ 30 tons VOC per year

c. Reactors K4, K5, K6, K7, and K8: Polyester Resins Production

Control requirements of Reactors K4, K5, K6, K7, and K8 are addressed in VOC RACT determination A-448-71-P-A (6/16/1997) and NSR licenses A-448-77-2-M (4/30/207) and A-448-77-13-M (3/9/2020).

At all times that K4, K5, K6, K7, and/or K8 are producing polyester or polyamide resins, Pioneer shall vent the emissions from the main outlet vent on each reactor to Boiler #5/TO or RTO #1 for destruction.

At all times that K4, K5, K6, K7, and/or K8 are blending polyester or polyamide resins, Pioneer shall vent the emissions from the main outlet vent on each reactor through the separating column and vapor condenser which shall be operated to maximize the condensation of any emissions. The temperature of the coolant on the inlet side of the vapor condensers to K4, K5, K6, K7, and/or K8 shall be maintained below 100 °F while the reactors are blending polyester or polyamide resins. Pioneer shall record the date and length of time in minutes when each reactor is blending polyester or polyamide resins.

At all times that K4, K5, K6, K7, and K8 are blending polyester or polyamide resins, Pioneer shall monitor and record every six hours the temperature of the coolant on the inlet side of the vapor condensers to the reactor.

2. 06-096 C.M.R. ch. 101, *Visible Emissions*

   Visible emissions from Reactors K1 – K8 shall each not exceed 20% opacity on a six-minute block average basis.

3. 06-096 C.M.R. ch. 105, *General Process Source Particulate Emission Standard*

   Emissions of particulate matter from Reactors K1 – K8 shall each not exceed the applicable limit in *General Process Source Particulate Emission Standard*, 06-096 C.M.R. ch. 105, § 3. Compliance shall be demonstrated through performance testing conducted upon request by the Department.

4. National Emissions Standards for Hazardous Air Pollutants (NESHAP)

   a. 40 C.F.R. Part 63, Subpart OOO

      Pioneer is subject to applicable requirements contained in *National Emission Standards for Hazardous Air Pollutant Emissions: Manufacture of Amino/Phenolic Resins*, 40 C.F.R. Part 63, Subpart OOO (Subpart OOO). This subpart applies to owners and operators of processes that produce amino/phenolic resins at a major source of HAP. The affected source includes all amino/phenolic resin process units (APPUs) and associated heat exchangers, control equipment, and other specified equipment.

      Reactors K1 and K2 are subject to Subpart OOO. They are considered part of an APPU because they are used to manufacture amino/phenolic resins as their primary product.

Reactors K3 – K7 are not subject to Subpart OOO because they do not produce amino/phenolic resins as their primary product as determined by § 63.1400(g).

Reactor K8 is not currently subject to Subpart OOO but has the potential to become subject to it if it produces amino/phenolic resins (i.e., melamine resin) for the greatest operating time over a five-year period.

Requirements of 40 C.F.R. Part 63, Subpart OOO, are addressed in section III(B) below.

b. 40 C.F.R. Part 63, Subpart EEEE

Pioneer is subject to applicable requirements contained in *National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline)*, 40 C.F.R. Part 63, Subpart EEEE (Subpart EEEE). This subpart applies to owners and operators of organic liquids distribution (OLD) (non-gasoline) operations at a major source of HAP. The affected source is the collection of activities and equipment used to distribute organic liquids into, out of, or within a facility. Activities include, but are not limited to, storage, transfer, blending, compounding, and packaging. [40 C.F.R. § 63.2334(a)]

Reactor K3 is used for the blending of organic liquids and is therefore included in the affected source for Subpart EEEE.

Requirements of 40 C.F.R. Part 63, Subpart EEEE, are addressed in section III(C) below.

c. 40 C.F.R. Part 63, Subpart FFFF

Pioneer is subject to applicable requirements contained in *National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing*, 40 C.F.R. Part 63, Subpart FFFF (Subpart FFFF). This subpart applies to owners and operators of miscellaneous organic chemical manufacturing process units (MCPUs) at a major source of HAP. The affected source includes all equipment which collectively function to produce a product included in § 63.2435(b)(1) of the regulation including, but not limited to, storage tanks, pumps, compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, and instrumentation. [40 C.F.R. § 63.2435(b)]

Subpart FFFF does not apply to equipment which is an affected source under another subpart of 40 C.F.R. Part 63. [40 C.F.R. § 63.2435(b)(3)]

Reactors K1 and K2 primarily produce melamine resins, which is an organic chemical classified under NAICS code 325. [40 C.F.R. § 63.2435(b)(1)(ii)] However, these reactors are subject to requirements pursuant to 40 C.F.R. Part 63, Subpart OOO, and are therefore exempt from the requirements of Subpart FFFF.

Reactor K3 is subject to requirements pursuant to 40 C.F.R. Part 63, Subpart EEEE, and is therefore exempt from the requirements of Subpart FFFF.

Reactors K4 – K8 are subject to Subpart FFFF. They are considered part of an MCPU because they are used to manufacture polyester and polyamide resins as their primary product. Both polyester and polyamide resin manufacture are included in NAICS code 325, and Reactors K4 – K8 are not addressed by another subpart of 40 C.F.R. Part 63.

Requirements of 40 C.F.R. Part 63, Subpart FFFF, are addressed in section III(D) below.

d. 40 C.F.R. Part 63, Subpart JJJJ

National Emission Standards for Hazardous Air Pollutants: Paper and Other Web Coating, 40 C.F.R. Part 63, Subpart JJJJ, applies to major sources at which web coating lines are operated. Reactor K3 is used for mixing resins and additives prior to being used in the coating process.

Pursuant to the preamble[3] of the 2002 final rule, affiliated operations such as mixing of coatings prior to application are part of the paper and other web surface coating source category. However, because EPA was not able to identify emissions reductions for affiliated operations, they determined it was not appropriate to include them in the affected source. Therefore, there are no applicable requirements for Reactor K3 contained in 40 C.F.R. Part 63, Subpart JJJJ.

N. Treaters, Impregnators, and Coater

Pioneer operates treater, impregnator, and coater lines for applying resins to a web substrate. Each line applies resins to paper or other substrates (e.g., fiberglass) by either impregnating and/or coating the substrate at the application area(s) of the line. Each line has an electric oven after the application area, within which the coated or impregnated substrate is dried and/or resin is cross-linked. While a portion of the VOC present in the resins used remains in the final product, Pioneer conservatively assumes all VOC in the resins is released.

Treaters M1, M4, M5, and M7 are used to apply melamine and urea resins to decorative paper or fiberglass substrates. Each treater has one or two application areas. The resins

[3] 67 Fed. Reg. 72332, December 4, 2002

applied in the treaters are low-solvent coatings with a VOC content of 2.9 lbs of VOC per gallon or less. The treaters utilize low-solvent coatings in lieu of add-on control equipment.

Impregnators P4, P5, and P9 are used to produce phenolic-impregnated kraft paper. Each impregnator has only one coating application area. VOC emissions are collected and conveyed to Boiler #5/TO through a permanent total enclosure.

Coater C4 is primarily used to produce polyester-coated decorative paper products and to apply polymetric coatings to a fiberglass web substrate. It has two coating application areas. VOC emissions are collected and conveyed to Boiler #5/TO through a permanent total enclosure.

1. New Source Review (NSR) Requirements and Best Practical Treatment (BPT)

   a. VOC Annual Emission Limit

      Impregnator P9 and the associated Laminate Press 1 and Tank #67 were addressed in NSR license A-448-77-1-A (6/5/2007). An emission limit of 39.0 tpy of VOC for Impregnator P9, Laminate Press 1, and Tank #67 combined was established to ensure this modification remained minor. This limit was later revised in NSR license A-448-77-9-A (7/21/2017) where, to simplify recordkeeping, Pioneer accepted an emission limit of 123.2 tpy of VOC for all of the following equipment combined on a 12-month rolling total basis:

      (1) CPL Line #1;
      (2) Tanks #70 and #71;
      (3) Thermal Oil Heater #1;
      (4) Reactors K1, K2, and K3;
      (5) Impregnators P4, P5, and P9;
      (6) Treaters M1, M4, M5, and M7;
      (7) Laminate Press 1; and
      (8) Tank #67.

      Feed Tank #67 was never installed and was replaced instead by Tanks #70 and #71.

      Pioneer shall keep records of total VOC emissions from the equipment above (with the exception of Tank #67) on monthly and 12-month rolling total basis.

   b. Controls and Inspections

      The following requirements were determined to be BACT for Impregnator P9 in NSR license A-448-77-1-A. The same requirements are being included for Impregnators P4 and P5 and Coater C4 pursuant to 06-096 C.M.R. ch. 140, BPT. The BPT requirements are **Enforceable by State-only**.

(1) Pioneer shall collect VOC emissions from any operation of Impregnators P4, P5, and P9 and/or Coater C4 by means of a certified Permanent Total Enclosure (PTE) capture system and vent the emissions to a thermal oxidizer (Boiler #5/TO) with a destruction efficiency of 98% or greater.

(2) The PTE on Impregnators P4, P5, and P9 and Coater C4 shall have documented inspections semiannually. The inspection reports shall be submitted with the semiannual report required by this license.

(3) Pioneer shall conduct an evaluation of the PTE capture systems on Impregnators P4, P5, and P9 and Coater C4 every two calendar years confirming that the system meets the applicable specifications in 06-096 C.M.R. ch. 126, Appendix A, Procedure T, for a PTE.

c. Performance Tests

Concurrent with the PTE capture system evaluation (every two calendar years), Pioneer shall conduct performance testing on Boiler #5/TO to demonstrate compliance with the destruction efficiency requirements. [06-096 C.M.R. ch. 115, BACT (A-448-77-1-A, 6/5/2007)]

d. Recordkeeping

Pioneer shall keep records of all operating hours for Impregnators P4, P5, and P9 and Coater C4. [06-096 C.M.R. ch. 140, BPT] **Enforceable by State-only**

2. 06-096 C.M.R. ch. 123

The treaters, impregnators, and coater are subject to the requirements of *Control of Volatile Organic Compounds from Paper, Film and Foil Coating Operations*, 06-096 C.M.R. ch. 123, when applying resins or coatings to paper, film, or foil.

a. Emission Limits

(1) Treaters M1, M4, M5, and M7 shall only use coatings with a VOC content of 2.9 lbs of VOC per gallon or less (excluding water). [06-096 C.M.R. ch. 123, § 3(A)]

(2) During all operating times, emissions from Impregnators P4, P5, and P9 and Coater C4 shall be controlled by Boiler #5/TO such that the overall efficiency of the abatement equipment (i.e., the efficiency of the capture system multiplied by the efficiency of the control device) reduces VOC emissions by at least 95% or to an emission rate of 4.8 lbs VOC per gallon of solids applied or less,

whichever is less stringent. Compliance shall be demonstrated through performance testing conducted upon request by the Department. When conducting performance testing pursuant to 40 C.F.R. Part 60, Appendix A, Method 25, the averaging period shall be three hours. [06-096 C.M.R. ch. 123, § 3(B)]

b. Work Practices

Pioneer shall use the following work practices:

(1) New and used coating or cleaning solvent containing greater than 2.9 lbs VOC/gallon, including a coating mixed on the premises, shall be stored in non-absorbent, non-leaking containers. Such containers shall be kept closed at all times except when the container is being filled, emptied, or is otherwise actively in use.

(2) Spills and leaks of VOC-containing coating or cleaning solvent shall be minimized. Any leaked or spilled VOC-containing coating or cleaning solvent shall be immediately absorbed and removed or disposed of.

(3) Absorbent applicators, such as cloth and paper, which are moistened with coating or cleaning solvent containing greater than 2.9 lbs VOC/gallon, shall be stored in a closed, non-absorbent, non-leaking container for disposal or recycling.

(4) Coating or cleaning solvent containing greater than 2.9 lbs VOC/gallon shall be conveyed from one location to another in a closed container or pipe.

(5) Cleaning shall be performed to minimize associated VOC emissions.

[06-096 C.M.R. ch. 123, § 4]

c. Monitoring

Whenever Boiler #5/TO is being operated to control emissions from the impregnators or Coater C4, Pioneer shall continuously monitor and record the unit's exhaust gas temperature (°F). [06-096 C.M.R. ch. 123, § 7(B)]

d. Recordkeeping

Pioneer shall record data and maintain records of the following:

(1) Exhaust gas temperature (°F) monitored and recorded continuously when operating Boiler #5/TO as a control device for the impregnators or Coater C4; [06-096 C.M.R. ch. 123, § 7(B)]

(2) For each coating:
(i) Supplier name
(ii) Name of coating
(iii) Identification number of coating
(iv) Coating density (lb/gal)
(v) Total VOC content as supplied (wt %)
(vi) Water content of coating as supplied (wt %)
(vii) Exempt VOC content (described in the rule) of coating as supplied (wt %)
(viii) Solids content of coating as supplied (vol %)
(ix) Diluent ratio (gal diluent/gal coating)
[06-096 C.M.R. ch. 123, § 6(B)]

(3) For each diluent:
(i) Name of diluent
(ii) Identification number of diluent
(iii) Diluent density (lb/gal)
[06-096 C.M.R. ch. 123 § 6(B)]

(4) The following records on a daily basis:
(i) Coating line number
(ii) Time period coating was applied
(iii) Coating identification number
(iv) Amount of coating used
(v) Diluent identification number
(vi) Amount of diluent used
[06-096 C.M.R. ch. 123, § 6(C)]

3. 06-096 C.M.R. ch. 129

The treaters, impregnators, and coater are subject to the requirements of *Surface Coating Facilities*, 06-096 C.M.R. ch. 129, when applying resins or coatings to fabric. The Department has determined that the requirements of this rule are less stringent than, or equivalent to, the requirements of *Control of Volatile Organic Compounds from Paper, Film and Foil Coating Operations*, 06-096 C.M.R. ch. 123, and *National Emission Standards for Hazardous Air Pollutant Emissions: Printing, Coating, and Dyeing of Fabrics and Other Textiles*, 40 C.F.R. Part 63, Subpart OOOO. Pioneer has

requested streamlining for the requirements of 06-096 C.M.R. ch. 129 to these more stringent rules. Therefore, only the requirements of the more stringent rules are contained in the Order section of this air emission license.

4. 06-096 C.M.R. ch. 134

   The treaters, impregnators, and coater are exempt from *Reasonably Available Control Technology for Facilities that Emit Volatile Organic Compounds,* 06-096 C.M.R. ch. 134, (VOC RACT) pursuant to § 1(C)(3)(a) because they are subject to requirements in 06-096 C.M.R. ch. 123, which is a VOC control regulation approved by EPA for which a Control Techniques Guideline (CTG) document was written.

   VOC RACT is applicable to cleanup activities on the treaters. The following was determined to be RACT for these activities:

   When engaging in cleanup activities on Treaters M1, M4, M5, and M7, Pioneer shall limit the VOC content of the cleaning solutions to 50% or less by volume, except for the use of 500 pounds of cleaning solutions per year which may contain greater than 50% VOC by volume.

   Pioneer shall keep records of the VOC emissions per year from cleanup activities on the treaters as well as records of the pounds per year of cleaning solutions which were used with a VOC content greater than 50% by volume.

5. New Source Performance Standards (NSPS)

   Pioneer is subject to applicable requirements contained in *Standards of Performance for Polymeric Coating of Supporting Substrates Facilities*, 40 C.F.R. Part 60, Subpart VVV. This subpart applies to web coating processes that apply elastomers, polymers, or prepolymers to a supporting web other than paper, plastic film, metallic foil, or metal coil. This includes Pioneer's coating of fiberglass substrates.

   Because Pioneer's VOC use for this process is less than 95 megagrams (Mg) per 12-month period, Pioneer is subject only to the recordkeeping and reporting requirements contained in 40 C.F.R. §§ 60.744(b), 60.747(b), and 60.747(c). [40 C.F.R. § 60.740(b)]

   Section 60.747(b) of the regulation required the submittal of a notification of anticipated startup required under 40 C.F.R. § 60.7(a)(2); a material flow chart indicating projected VOC use; and the submittal of actual VOC use records at the end of the initial year. The compliance date for these activities has passed.

   Pioneer shall make and record semiannual estimates of the projected annual amount of VOC to be used for the manufacture of polymeric coated substrate at the affected

coating operation in that year and shall maintain records of actual 12-month VOC use. [40 C.F.R. §§ 60.744(b) and 60.747(c)]

Pioneer shall report the first semiannual estimate in which projected annual VOC use exceeds the applicable cutoff; and report the first 12-month period in which the actual VOC use exceeds the applicable cutoff. [40 C.F.R. § 60.747(c)]

6. National Emissions Standards for Hazardous Air Pollutants (NESHAP)

The treaters, impregnators, and Coater C4 are subject to either one or two of the following regulations under 40 C.F.R. Part 63 depending on the particular web substrate used and the percentage of time that substrate is used on an individual line.

- 40 C.F.R. Part 63, Subpart JJJJ, *National Emission Standards for Hazardous Air Pollutants: Paper and Other Web Coating*; and
- 40 C.F.R. Part 63, Subpart OOOO, *National Emission Standards for Hazardous Air Pollutants: Printing, Coating, and Dyeing of Fabrics and Other Textiles*.

Due to the flexibility inherent in the processes to coat either a fabric or a paper web on any process line, Pioneer has requested streamlining of these two applicable regulations to facilitate uniform standards across all coating lines. The streamlined requirements incorporate the applicable standards of 40 C.F.R. Part 63, Subpart OOOO, which were implemented following the more stringent timelines in 40 C.F.R. Part 63, Subpart JJJJ.

Requirements of 40 C.F.R. Part 63, Subpart OOOO, are addressed in section III(G) below.

O. Pressroom

After the substrate has been impregnated or coated, layers are cured and pressed into their final laminate form by applying heat and pressure in one of eight individual presses, each of which vents separately to the atmosphere. The pressure and heat supplied in each press promotes cross-linking within the layers to form the laminate and may also release small amounts of VOC not driven from the paper in the dryer section of the coating line.

1. 06-096 C.M.R. ch. 101

Visible emissions from the pressroom vents shall not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 4(B)(4)]

Press 1 is subject to a visible emission standard established through BACT contained in NSR license A-448-77-1-A (6/5/2007). The Department has determined that the applicable limit in 06-096 C.M.R. ch. 101 is more stringent than the BACT limit. The

visible emission limit has been streamlined to the more stringent limit, and only this more stringent limit shall be included in the Order of this air emission license.

2. 06-096 C.M.R. ch. 134

   VOC emissions from the pressroom vents were evaluated in VOC RACT license A-448-71-P-A (6/16/1997). Annual emissions from this equipment were found to be small (less than 5.0 tpy), and no additional add-on controls were found to be justified.

P. CPL Line #1

In 2017, Pioneer installed and begun operation of a new press (CPL Line #1) capable of continuously producing high-pressure laminate. CPL Line #1, manufactured by Hymmen, continuously unwinds rolls of melamine-formaldehyde treated décor paper and/or overlay, phenolic-treated kraft paper, and backing. It then applies heat and high-pressure compression to promote cross-linking within the layers to continuously produce laminate product. CPL Line #1 has a maximum production capacity of 237.8 square feet per minute (or 0.55 ft^3/min) , although actual production varies depending on the product grade produced.

Heat for the press is provided by Thermal Oil Heater #1 which is addressed separately in this license. No additional heat is provided to CPL Line #1 by the facility's boilers. Emissions from the press section of CPL Line #1 are vented to atmosphere.

CPL Line #1 includes in-line sanding, trimming, and cutting equipment which formats the final product for length and width. The dust from the in-line sander is captured with an integrated cartridge dust collector (CPL Line #1 Collector) that vents outside the building. The CPL Line #1 Collector is rated to achieve at least 99% control of PM/PM_{10} emissions using paper or fabric filters to remove dust from the air stream.

Pioneer pneumatically conveys the dust collected by the CPL Line #1 Collector to a dust collection unit, a Camfil Farr Dust Collector. The Camfil Farr Dust Collector is a cartridge filter system that uses pulses of air to clean the filter media, similar to a baghouse. The PM control efficiency of the Camfil Farr Dust Collector is rated above 99.9%.

The Camfil Farr Dust Collector is located outside the building and discharges into the existing dust collection bin along with the dust collected from the facility's Dust Transport System.

1. Control Equipment

   As described above, Pioneer shall use CPL Line #1 Collector to control PM emissions from the in-line sanding operations on CPL Line #1. CPL Line #1 Collector shall meet a minimum control efficiency of 99%.

The CPL Line #1 Collector shall pneumatically convey collected dust to the outside dust collection bin. PM emissions from the dust collection system shall be controlled by the Camfil Farr Dust Collector. The Camfil Farr Dust Collector shall meet a minimum control efficiency of 99%.

2. New Source Review (NSR) Requirements

The installation of CPL Line #1 was addressed in NSR licenses A-448-77-9-A (NSR #9), issued 7/21/2017 and A-448-77-10-M (NSR #10), issued 3/16/2018.

a. Volatile Organic Compounds (VOC)

Although most of the VOC in the laminate product has already been flashed off in the impregnators and treaters, the heat and pressure applied by CPL Line #1 may cause some additional VOC to be released.

Potential VOC emissions from CPL Line #1 are estimated to be 2.4 tpy based on a maximum pressing rate of 0.55 ft^3/min and a VOC emission rate of 0.01655 lb/ft^3 previously established based on information from the existing presses.

In NSR #9, BACT for VOC emissions from CPL Line #1 was determined to be operation of the equipment in accordance with the manufacturer's instructions.

As discussed previously, NSR #9 also established a combined VOC emission limit of 123.2 tpy on a 12-month rolling total basis for the following equipment: CPL Line #1, Tanks #70 and #71, Thermal Oil Heater #1, Reactors K1, K2, and K3, Impregnators P4, P5, and P9, Treaters M1, M4, M5, and M7, and Laminate Press #1. Pioneer shall calculate and keep records of VOC emissions from this equipment on a monthly and 12-month rolling total basis.

b. Particulate Matter (PM)

In NSR #10, BACT for PM emissions from CPL Line #1 was determined to be the following:

(1) Visible emissions from the press section of CPL Line #1 shall not exceed 20% opacity on a six-minute block average basis.

(2) Pioneer shall use CPL Line #1 Collector to control PM emissions from the in-line sanding operations on CPL Line #1. CPL Line #1 Collector shall meet a minimum control efficiency of 99%. Compliance shall be demonstrated by the recordkeeping requirements outlined below and emissions testing performed on request by the Department.

(3) Pioneer shall pneumatically convey the dust from the CPL Line #1 Collector to the outside dust collection bin. PM emissions from this dust collection system shall be controlled by the Camfil Farr Dust Collector. The Camfil Farr Dust Collector shall meet a minimum control efficiency of 99%. Compliance shall be demonstrated by the recordkeeping requirements outlined below and emissions testing performed on request by the Department.

(4) Pioneer shall inspect the CPL Line #1 Collector and Camfil Farr Dust Collector monthly for leaks and shall keep records of these inspections as well as any maintenance (planned or unplanned) performed including filter replacements.

(5) Visible emissions from the CPL Line #1 Collector and Camfil Farr Dust Collector shall each not exceed 10% opacity on a six-minute block average basis. Upon request by the Department, Pioneer shall demonstrate compliance with observations performed by someone certified in EPA Method 9.

3. 06-096 C.M.R. ch. 134

Reasonably Available Control Technology for Facilities that Emit Volatile Organic Compounds, 06-096 C.M.R. ch. 134, (VOC RACT) is applicable to sources that have the potential to emit quantities of VOC equal to or greater than 40 tons/year. CPL Line #1 is exempt from the requirements of VOC RACT pursuant to 06-096 C.M.R. ch. 134, § 1(C)(2) because CPL Line #1 is subject to BACT requirements as established in a federally enforceable license.

4. New Source Performance Standards (NSPS)

CPL Line #1 is not subject to *Standards of Performance for Polymeric Coating of Supporting Substrates Facilities*, 40 C.F.R. Part 60, Subpart VVV. This subpart applies to web coating processes that apply elastomers, polymers, or prepolymers to a supporting web other than paper, plastic film, metallic foil, or metal coil such as fiberglass substrates. CPL Line #1 does not apply any coating to a substrate. It applies heat and pressure to previously coated substrates.

5. National Emissions Standards for Hazardous Air Pollutants (NESHAP)

CPL Line #1 is not subject to either of the following:

- 40 C.F.R. Part 63, Subpart JJJJ, *National Emission Standards for Hazardous Air Pollutants: Paper and Other Web Coating*; and
- 40 C.F.R. Part 63, Subpart OOOO, *National Emission Standards for Hazardous Air Pollutants: Printing, Coating, and Dyeing of Fabrics and Other Textiles*.

These regulations apply to the coating of paper, fabric, and other substrates. As described above, CPL Line #1 does not apply coating to a substrate. It applies heat and pressure to previously coated substrates.

6. Periodic Monitoring

Pioneer shall operate, record data, and maintain records from the following periodic monitors for CPL Line #1.

a. Hours the equipment was active or operating on a monthly and calendar year basis. [06-096 C.M.R ch. 137]
b. Estimated emissions of VOC and HAP on a calendar year basis. [06-096 C.M.R. ch. 137]
c. Records of any maintenance activities performed (planned or unplanned) on the CPL Line #1 Collector and Camfil Farr Dust Collector. [06-096 C.M.R. ch. 115, BACT (A-448-77-10-M)]

7. Parameter Monitors

During all operating times, Pioneer shall operate, record data, and maintain records from the following parameter monitors for the CPL Line #1 Collector and the Camfil Farr Dust Collector (each) in accordance with Pioneer's approved CAM plan:

Parameter	Frequency
Cartridge filter pressure drop	Monitored: Continuously Recorded: Monthly
Visual inspections	Monitored: Daily Recorded: Daily

Q. Digital Printers

Pioneer operates seven digital printers.

The installation of Digital Printer #7 was addressed in NSR licenses A-448-77-14-M (NSR #14), issued 4/27/2020. With this installation, BACT for all digital printers was reevaluated. The Department found an annual emission limit of 8.3 tpy on a 12-month rolling total basis to represent BACT for VOC and HAP emissions from the digital printing operations (i.e., all 7 printers combined).

Compliance shall be demonstrated by recordkeeping, including tracking the VOC and HAP content and volume of inks used on a monthly basis.

R. Storage Tanks

Pioneer owns and operates several fixed roof storage tanks used for various purposes, including blending resins at the front end of the paper coating lines and in the Specialty Resins area of the plant; raw material/finished product unloading, loading, weighing, and storage; and wastewater pretreatment.

Equipment	Capacity	Installation Date
Tank #27 – Phenolic Resin/Blend	19,800 gallons	1965
Tank #29 – Methanol	20,000 gallons	1965 [a]
Tank #30 – Formaldehyde	20,000 gallons	1965
Tank #45 – Phenolic Resin/Blend	10,000 gallons	1973
Tank #46 – Phenolic Resin/Blend	10,000 gallons	1973
Tank #47 – Phenolic Resin/Blend	10,000 gallons	1973
Tank #48 – Phenolic Fast Cure	10,000 gallons	1973
Tank #49 – Phenolic Resin/Blend	10,000 gallons	1973
Tank #60 – Phenolic Resin	12,500 gallons	1988
Tank #66 – 1,6 Hexanediol	15,000 gallons	1993
Tank #70 – Phenolic Resin	600 gallons	2017
Tank #71 – Phenolic Resin	600 gallons	2017

[a] Tank #29 had a new bottom installed in September 1993.

1. New Source Review (NSR) Requirements

   In NSR #9, Pioneer was licensed to install two tanks (Tanks #70 and #71). These tanks are used to store phenolic resin for use in Impregnator P9 in support of CPL Line #1. The maximum capacity of the tanks is 600 gallons each.

   Emissions of VOC from storage tanks occur due to evaporative loss of the liquid during storage (breathing losses) and due to changes in the liquid level during filling and emptying operations (working losses). Potential VOC emissions from Tanks #70 and #71 are estimated to be less than 0.5 tpy for both tanks combined.

   In NSR #9, BACT for VOC emissions from Tanks #70 and #71 was determined to be monthly recordkeeping of VOC emissions from each tank and inclusion of those emissions in the previously discussed VOC emission limit of 123.2 tpy on a 12-month rolling total basis.

2. 06-096 C.M.R. ch. 111

   Pioneer's tanks are not subject to the requirements of *Petroleum Liquid Storage Vapor Control*, 06-096 C.M.R. ch. 111, because they all have capacities less than 39,000 gallons.

3. 06-096 C.M.R. ch. 118

   Pioneer's tanks are not subject to the requirements of *Gasoline Dispensing Facilities Vapor Control*, 06-096 C.M.R. ch. 118, because they do not store gasoline.

4. 06-096 C.M.R. ch. 133

   Pioneer's tanks are not subject to the requirements of *Petroleum Liquids Transfer Vapor Recovery at Bulk Gasoline Plants*, 06-096 C.M.R. ch. 133, because Pioneer is not a bulk gasoline plant, and none of the tanks store gasoline.

5. 06-096 C.M.R. ch. 134

   Nine storage tanks have conservation vents (vent which combines a low-pressure relief device and a vacuum breaker valve in a single housing, designed to minimize losses of stored material by reducing the release of vapors to the atmosphere) and are subject to VOC RACT requirements as outlined in A-448-71-P-A (6/16/1997). The RACT determination requires Pioneer to maintain conservation vents on the following tanks and to conduct semi-annual inspections:

Tank ID
Tank #29 – Methanol
Tank #30 – Formaldehyde
Tank #45 – Phenolic Resin/Blend
Tank #46 – Phenolic Resin/Blend
Tank #47 – Phenolic Resin/Blend
Tank #48 – Phenolic Fast Cure
Tank #49 – Phenolic Resin/Blend
Tank #60 – Phenolic Resin
Tank #66 – 1,6 Hexanediol

   Tanks #70 and #71 are exempt from the requirements of VOC RACT pursuant to 06-096 C.M.R. ch. 134, Section 1(C)(2). Tanks #70 and #71 are subject to BACT requirements as established in this federally enforceable license.

6. 06-096 C.M.R. ch. 170

   Pioneer's tanks are not subject to the requirements of *Degassing of Petroleum Storage Tanks, Marine Vessels, and Transport Vessels*, 06-096 C.M.R. ch. 170, because they all have capacities less than 39,000 gallons, are not located at a petroleum storage facility, and are not transport vessels or marine vessels.

7. 06-096 C.M.R. ch. 171

   Pioneer's tanks are not subject to the requirements of *Control of Petroleum Storage Facilities*, 06-096 C.M.R. ch. 171, because they all have capacities less than 39,000 gallons, and Pioneer is not a petroleum storage facility as defined by the rule.

8. New Source Performance Standards (NSPS)

   None of Pioneer's storage tanks are subject to any of the regulations listed below.

   - 40 C.F.R. Part 60, Subpart K – *Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced after June 11, 1973, and Prior to May 19, 1978*
   - 40 C.F.R. Part 60, Subpart Ka – *Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction or Modification Commenced After May 18, 1978, and Prior to July 23, 1984*
   - 40 C.F.R. Part 60, Subpart Kb – *Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984, and On or Before October 4, 2023*
   - 40 C.F.R. Part 60, Subpart Kc - *Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After October 4, 2023*

   Subparts K and Ka apply to vessels with a storage capacity greater than 40,000 gallons. None of the storage tanks at Pioneer have capacities that large.

   Subpart Kb applies to vessels with a storage capacity greater than 75 cubic meters (19,813 gallons) that were constructed, reconstructed, or modified after July 23, 1984, and before October 4, 2023. Tanks #29 and #30 were constructed prior to 1984 and have not been reconstructed or modified. Tank #29 had a new bottom installed in September 1993. However, this physical change was not a modification because it didn't increase emissions of any pollutant, and it was not a reconstruction because the fixed capital cost of the work did not exceed 50% of a new tank. All other tanks at Pioneer have capacities less than 75 cubic meters.

   Subpart Kc applies to vessels with a storage capacity greater than or equal to 20,000 gallons that were constructed, reconstructed, or modified after October 4, 2023. All tanks at the facility were installed prior to October 4, 2023. However, existing storage vessels can become subject if modified. Pursuant to 40 C.F.R. § 60.110c(e), a modification occurs if the storage vessel is used to store a volatile organic liquid (VOL) that has a greater maximum true vapor pressure than all VOL historically stored or permitted to be stored. Tanks #29 and #30 have historically stored methanol and formaldehyde, respectively. Therefore, these tanks are not subject to Subpart Kc

provided they continue to store the products for which they are currently licensed. Pioneer shall maintain records of the type and maximum true vapor pressure for each product stored in Tanks #29 and #30. This recordkeeping requirement is added through BPT.

9. National Emissions Standards for Hazardous Air Pollutants (NESHAP)

   a. 40 C.F.R. Part 63, Subpart EEEE

   Pioneer is subject to applicable requirements contained in *National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline)*, 40 C.F.R. Part 63, Subpart EEEE (Subpart EEEE). This subpart applies to owners and operators of organic liquids distribution (OLD) (non-gasoline) operations at a major source of HAP. The affected source is the collection of activities and equipment used to distribute organic liquids into, out of, or within a facility. Activities include, but are not limited to, storage, transfer, blending, compounding, and packaging. [40 C.F.R. § 63.2334(a)]

   Tanks #27, #29, #45 - #49, and #60 are potentially used for the storage of organic liquid and are included in the affected source for Subpart EEEE. However, due to the size of each storage tank and the vapor pressures of the products stored, they are not subject to control requirements pursuant to 40 C.F.R. § 63.2346(a) and Tables 2 and 2b. Therefore, this equipment is subject only to the notification, recordkeeping, and reporting requirements of 40 C.F.R. § 63.2343.

   Requirements of 40 C.F.R. Part 63, Subpart EEEE, are addressed in section III(C) below.

   b. 40 C.F.R. Part 63, Subpart FFFF

   Pioneer is subject to applicable requirements contained in *National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing*, 40 C.F.R. Part 63, Subpart FFFF (Subpart FFFF). This subpart applies to owners and operators of miscellaneous organic chemical manufacturing process units (MCPUs) at a major source of HAP. The affected source includes all equipment which collectively function to produce a product included in § 63.2435(b)(1) of the regulation including, but not limited to, storage tanks, pumps, compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, and instrumentation. [40 C.F.R. § 63.2435(b)]

   Subpart FFFF does not apply to equipment which is an affected source under another subpart of 40 C.F.R. Part 63. [40 C.F.R. § 63.2435(b)(3)]

All of Pioneer's storage tanks are included in the affected source of 40 C.F.R. Part 63, Subpart OOO or Subpart EEEE and are therefore not subject to requirements in Subpart FFFF.

10. Periodic Monitoring

Pioneer shall maintain records of the estimated emissions of VOC and HAP from the storage tanks on a calendar year basis. [06-096 C.M.R. ch. 137]

S. Chemical Loading/Unloading Operations

Pioneer receives various raw materials in tank trucks and rail cars and loads various products into tank trucks for shipment to customers. Fugitive VOC and/or HAP emissions can occur as samples are taken prior to unloading or as a result of vapor displacement during product loading.

1. 06-096 C.M.R. ch. 134

VOC emissions from the chemical loading/unloading operations were evaluated in VOC RACT license A-448-71-P-A (6/16/1997). Annual emissions from this equipment were found to be small (less than 5.0 tpy) and no additional add-on controls were found to be justified.

2. 40 C.F.R. Part 63, Subpart EEEE

Chemical loading/unloading operations, including Pioneer's unloading operations for methanol, formaldehyde, and purchased phenolic resins are included in the affected source for *National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline)*, 40 C.F.R. Part 63, Subpart EEEE. However, Pioneer performs unloading of chemicals only and does not load chemicals containing organic HAP into transport vehicles. Therefore, this equipment is subject only to the notification, recordkeeping, and reporting requirements of 40 C.F.R. § 63.2343.

Requirements of 40 C.F.R. Part 63, Subpart EEEE, are addressed in section III(C) below.

T. Storage Silos

Pioneer maintains two storage silos for the storage of powdered material. One silo stores melamine powder used for the production of melamine resins, and the second contains terephthalic acid, which is used in the production of polyester resins. Both of these silos are equipped with baghouses. Additionally, Pioneer maintains three associated weigh tanks that are also equipped with baghouses.

1. 06-096 C.M.R. ch. 101

   Visible emissions from each of the baghouses associated with the storage silos shall not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 4(B)(3)]

2. 06-096 C.M.R. ch. 105

   Particulate emissions from the storage silos and associated equipment shall be limited to the applicable limitation from Table 105A or the formula in Section 4 of *General Process Source Particulate Emission Standard*, 06-096 C.M.R. ch. 105. Compliance shall be demonstrated upon request by the Department.

3. Periodic Monitoring

   Pioneer shall inspect the storage silos monthly and maintain records of those inspections and any maintenance activities performed (planned or unplanned). [06-096 C.M.R. ch. 140, BPT] **Enforceable by State-only**

U. Routers, Table Saws, and Sanders

Finished laminates are cut and shaped by routers, table saws, and sanders, which generates emissions of particulate matter. These emissions are controlled by three roof-mounted fabric filters (baghouses).

1. 06-096 C.M.R. ch. 101

   Visible emissions from each of the baghouses associated with the routers, table saws, and sanders shall not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 4(B)(3)]

2. 06-096 C.M.R. ch. 105

   Particulate emissions from the routers, table saws, and sanders and associated equipment shall be limited to the applicable limitation from Table 105A or the formula in Section 4 of *General Process Source Particulate Emission Standard*, 06-096 C.M.R. ch. 105. Compliance shall be demonstrated upon request by the Department.

3. Parameter Monitors

During all operating times, Pioneer shall operate, record data, and maintain records from the following parameter monitors for the baghouses associated with the routers, table saws, and sanders in accordance with Pioneer's approved CAM plan:

Parameter	Monitoring Frequency
Baghouse pressure drop	Monitored: Continuously Recorded: Weekly
Visual inspections	Monitored: Daily Recorded: Daily

V. Resin Crusher/Grinder

Pioneer uses a resin crusher/grinder to make solid resins into smaller particles or powders, which are sold to customers. This operation has the potential to emit particulate matter. Emissions are controlled by a baghouse.

1. 06-096 C.M.R. ch. 101

Visible emissions from the baghouse associated with the resin crusher/grinder shall not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 4(B)(3)]

2. 06-096 C.M.R. ch. 105

Particulate emissions from the resin crusher/grinder and associated equipment shall be limited to the applicable limitation from Table 105A or the formula in Section 4 of *General Process Source Particulate Emission Standard*, 06-096 C.M.R. ch. 105. Compliance shall be demonstrated upon request by the Department.

3. Periodic Monitoring

Pioneer shall inspect the resin crusher/grinder baghouse monthly and maintain records of those inspections and any maintenance activities performed (planned or unplanned). [06-096 C.M.R. ch. 140, BPT] **Enforceable by State-only**

W. Drillboard Press Plate Preparation

Pioneer uses aluminum drillboard press plates in the production of laminate. To prepare the aluminum plates for use, they are first heated and then a VOC-containing coating release aid is applied by pneumatic air spray gun to the aluminum surface to prevent the plates from sticking to the laminate product. Reapplication is done when the release properties of the plate begin to diminish.

Emissions of VOC from this operation are estimated to be less than 1.0 tpy. As such, the implementation of additional control technologies is considered infeasible.

Pioneer shall maintain records of the coating release aid usage and VOC content and include emissions from this process in the annual emissions report required by 06-096 C.M.R. ch. 137.

X. Stationary Engines

Pioneer operates the following two emergency generators and one emergency fire pump:

Engine	Maximum Input Capacity, MMBtu/hr	Fuel	Year of Manf.	Applicable Requirements in…		
				NSPS Subpart IIII	NSPS Subpart JJJJ	NESHAP Subpart ZZZZ
Generator #1	1.13	natural gas	1982	No	No	Yes
Generator #2	1.2	distillate fuel	1982	No	No	Yes
Fire Pump #1	2.1	distillate fuel	1970	No	No	Yes

BPT for Generator #2 and Fire Pump #1 includes the use of distillate fuel with a sulfur content not to exceed 15 ppm (0.0015% by weight).

1. Visible Emissions

   Pioneer's stationary engines are each are subject to 06-096 C.M.R. ch. 101 and subject to the following standards. [06-096 C.M.R. ch. 101, § 4(A)(4)]

   Visible emissions from Generator #1 shall not exceed 20% opacity on a six-minute block average basis.

   Visible emissions from Generator #2 and Fire Pump #1 shall not exceed an opacity of 20% on a six-minute block average basis, except during periods of startup. During periods of startup, the engine must meet the normal operating visible emissions standard or the or the following work practice standards and alternative visible emissions standard. Use of the following work practice standards and alternative visible emissions standard in lieu of the normal operating visible emissions standard is limited to no more than once per day.

   a. The duration of the startup shall not exceed 30 minutes per event;
   b. Visible emissions shall not exceed 50% opacity on a six-minute block average basis; and

c. Pioneer shall keep records as of the date, time, and duration of each startup event.

Note: This does not limit the engine to one startup per day. It only limits the use of the alternative emission standard to once per day.

2. *Stationary Generators*, 06-096 C.M.R. ch. 169

Generators #1 and #2 were licensed prior to the effective date of *Stationary Generators*, 06-096 C.M.R. ch. 169 and are therefore exempt from this rule pursuant to section 3(B).

3. National Emissions Standards for Hazardous Air Pollutants (NESHAP)

National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines 40 C.F.R. Part 63, Subpart ZZZZ is applicable to Generators #1 and #2 and Fire Pump #1. The units are considered existing, emergency stationary reciprocating internal combustion engines (RICE) at a major HAP source and are not subject to New Source Performance Standards 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.

Requirements of 40 C.F.R. Part 63, Subpart ZZZZ, are addressed in section III(H) below.

4. Emission Limits and Streamlining

For Generators #1 and #2 and Fire Pump #1, a listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested ("*" denotes a request for streamlining), and the applicable emission limits can be found below. Limits are on a 1-hour block average basis unless otherwise stated.

Generator #1			
Pollutant	**Applicable Emission Standards**	**Origin and Authority**	**Licensed Emission Limits**
PM	0.06 lb/hr	06-096 C.M.R. ch. 140, BPT (A-448-70-D-R/A, 12/30/2015) **Enforceable by State-only**	0.06 lb/hr
PM_{10}	0.06 lb/hr	06-096 C.M.R. ch. 140, BPT (A-448-70-D-R/A, 12/30/2015) **Enforceable by State-only**	0.06 lb/hr

Generator #1			
Pollutant	**Applicable Emission Standards**	**Origin and Authority**	**Licensed Emission Limits**
$PM_{2.5}$	0.06 lb/hr	06-096 C.M.R. ch. 140, BPT **Enforceable by State-only**	0.06 lb/hr
NO_x	2.57 lb/hr	06-096 C.M.R. ch. 140, BPT (A-448-70-D-R/A, 12/30/2015) **Enforceable by State-only**	2.57 lb/hr
CO	3.97 lb/hr	06-096 C.M.R. ch. 140, BPT (A-448-70-D-R/A, 12/30/2015) **Enforceable by State-only**	3.97 lb/hr
VOC	0.03 lb/hr	06-096 C.M.R. ch. 140, BPT (A-448-70-D-R/A, 12/30/2015) **Enforceable by State-only**	0.03 lb/hr
Visible Emissions	As described earlier in this license		

Generator #2			
Pollutant	**Applicable Emission Standards**	**Origin and Authority**	**Licensed Emission Limits**
PM	0.14 lb/hr	06-096 C.M.R. ch. 140, BPT (A-448-70-D-R/A, 12/30/2015) **Enforceable by State-only**	0.14 lb/hr
PM_{10}	0.14 lb/hr	06-096 C.M.R. ch. 140, BPT (A-448-70-D-R/A, 12/30/2015) **Enforceable by State-only**	0.14 lb/hr
$PM_{2.5}$	0.14 lb/hr	06-096 C.M.R. ch. 140, BPT **Enforceable by State-only**	0.14 lb/hr
NO_x	5.29 lb/hr	06-096 C.M.R. ch. 140, BPT (A-448-70-D-R/A, 12/30/2015) **Enforceable by State-only**	5.29 lb/hr
CO	1.14 lb/hr	06-096 C.M.R. ch. 140, BPT **Enforceable by State-only**	1.14 lb/hr
VOC	0.43 lb/hr	06-096 C.M.R. ch. 140, BPT **Enforceable by State-only**	0.43 lb/hr
Visible Emissions	As described earlier in this license		

Fire Pump #1			
Pollutant	**Applicable Emission Standards**	**Origin and Authority**	**Licensed Emission Limits**
PM	0.25 lb/hr	06-096 C.M.R. ch. 140, BPT (A-448-70-A-A/I, 4/20/2004) **Enforceable by State-only**	0.25 lb/hr
PM_{10}	0.25 lb/hr	06-096 C.M.R. ch. 140, BPT (A-448-70-A-A/I, 4/20/2004) **Enforceable by State-only**	0.25 lb/hr
$PM_{2.5}$	0.25 lb/hr	06-096 C.M.R. ch. 140, BPT **Enforceable by State-only**	0.25 lb/hr
NO_x	9.26 lb/hr	06-096 C.M.R. ch. 140, BPT (A-448-70-A-A/I, 4/20/2004) **Enforceable by State-only**	9.26 lb/hr
CO	2.00 lb/hr	06-096 C.M.R. ch. 140, BPT **Enforceable by State-only**	2.00 lb/hr
VOC	0.76 lb/hr	06-096 C.M.R. ch. 140, BPT **Enforceable by State-only**	0.76 lb/hr
Visible Emissions	As described earlier in this license		

5. Emission Limit Compliance Methods

   Compliance with the emission limits associated with stationary engines shall be demonstrated in accordance with the appropriate test methods upon request of the Department.

6. Periodic Monitoring

   Pioneer shall record data and maintain records for the following periodic monitoring values for the stationary engines.

   a. Hours of operating time on a calendar year basis; [06-096 C.M.R. ch. 137]
   b. Log of the duration and reasons for all operating times as they occur; [40 C.F.R. § 63.6655(f)]
   c. Records of all maintenance conducted; and [40 C.F.R. § 63.6655(e)]
   d. Sulfur content of the fuel fired for those engines which fire distillate fuel. [06-096 C.M.R. ch. 140, BPT]

Y. Non-Road Engines

Facility may operate non-road engines on-site for maintenance and emergency-only purposes. Depending on their size and age, these engines may be subject to *Visible Emissions Regulation*, 06-096 C.M.R. ch. 101 and *Fuel Burning Equipment Particulate Emission Standard*, 06-096 C.M.R. ch. 103.

Any engine which cannot meet the definition of "portable or non-road engine" as defined by this license may be subject to additional State and Federal regulations. A license amendment may be necessary for a portable engine to be reclassified as stationary.

Z. Parts Washers

Pioneer operates cold cleaning parts washers, most of which are serviced by an outside contractor. The units are subject to applicable requirements *Solvent Degreasers,* 06-096 C.M.R. ch. 130.

Periodic monitoring for the parts washers shall consist of recordkeeping including records of solvent added and removed.

AA. General Process Emissions

Visible emissions from any general process source shall not exceed 20% opacity on a six-minute block average basis.

Visible emissions from any baghouse shall not exceed 10% on a six-minute block average basis.

BB. Fugitive Emissions

Pioneer shall not cause emissions of any fugitive dust during any period of construction, reconstruction, or operation without taking reasonable precautions. Such reasonable precautions shall be included in the facility's continuing program of best management practices for suppression of fugitive particulate matter. See 06-096 C.M.R. ch. 101, § 4(C) for a list of potential reasonable precautions.

Pioneer shall not cause or allow visible emissions within 20 feet of ground level, measured as any level of opacity and not including water vapor, beyond the legal boundary of the property on which such emissions occur. Compliance with this standard shall be determined pursuant to 40 C.F.R. Part 60, Appendix A, Method 22.

CC. Performance Test Protocol

For any performance testing required by this license, Pioneer shall submit to the Department a performance test protocol, as outlined in the Department's Performance Testing Guidance, at least 30 days prior to the scheduled date of the performance test. [06-096 C.M.R. ch. 140, BPT]

The Department's Performance Testing Guidance is available online at:
https://www.maine.gov/dep/air/emissions/testing.html

DD. Emission Statements

Pioneer is subject to emissions inventory requirements contained in *Emission Statements*, 06-096 C.M.R. ch. 137. Pioneer shall maintain records sufficient to complete and submit the annual emissions statement as required by this rule.

Every third year, or as requested by the Department, Pioneer shall report to the Department emissions of hazardous air pollutants as required pursuant to 06-096 C.M.R. ch. 137, § (3)(C). The next report is due no later than May 15, 2027, for emissions occurring in calendar year 2026. The Department will use these reports to calculate and invoice for the applicable annual air quality surcharge for the subsequent three billing periods. Pioneer shall pay the annual air quality surcharge, calculated by the Department based on these reported emissions of hazardous air pollutants, by the date required in Title 38 M.R.S. § 353-A(3). [38 M.R.S. § 353-A(1-A)]

EE. Facility Annual Emissions

The table below provides an estimate of facility-wide annual emissions for the purposes of calculating the facility's annual air license fee and establishing the facility's potential to emit (PTE). Only licensed equipment is included, i.e., emissions from insignificant activities are excluded. Similarly, unquantifiable fugitive particulate matter emissions are not included except when required by state or federal regulations. Maximum potential emissions were calculated based on the following assumptions:

- Licensed fuel limits;
- Operating each stationary engine for 100 hrs/yr;
- Operating all process equipment 8,760 hr/yr; and
- Applicable emission caps.

This information does not represent a comprehensive list of license restrictions or permissions. That information is provided in the Order section of this license.

Total Licensed Annual Emissions for the Facility
Tons/year
(used to calculate the annual license fee)

Equipment	PM	PM_{10}	$PM_{2.5}$	SO_2	NOx	CO	VOC
Boiler #4	33.0	33.0	33.0	368.0	99.0	66.0	2.0
Boiler#5/TO & Process VOC	52.1	52.1	52.1	385.9	103.8	329.0	131.4
Boiler #6	27.7	27.7	27.7	135.3	86.6	98.3	6.9
Boilers #7 and #8	1.5	1.5	1.5	4.3	6.8	13.7	0.4
RTO #1	1.4	1.4	1.4	0.3	4.3	1.0	17.5
CPL Line #1	–	–	–	–	–	–	2.4
Thermal Oil Heater #1	0.1	0.1	0.1	–	1.1	0.9	0.1
Digital Printers	–	–	–	–	–	–	8.3
Generator #1	–	–	–	–	0.1	0.2	–
Generator #2	–	–	–	–	0.3	0.1	–
Fire Pump #1	–	–	–	–	0.5	0.1	0.1
Totals	**115.8**	**115.8**	**115.8**	**893.8**	**302.5**	**509.3**	**169.1**

III. NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS

Pioneer is subject applicable standards in several subparts of *National Emission Standards for Hazardous Air Pollutants for Source Categories*, 40 C.F.R. Part 63. Pioneer shall continuously comply with all applicable requirements of the most current version of each subpart described below.

A. 40 C.F.R. Part 63, Subpart DDDDD

Boilers #4 and #6, Process Heater #8, and Thermal Oil Heater #1 are subject to applicable requirements in *National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters,* 40 C.F.R. Part 63, Subpart DDDDD, as described below.

1. Switching Subcategories

   Boilers #4 and #6 are both currently operated in the "units designed to burn gas 1" subcategory.

   a. Boilers #4 and #6 may each burn #6 fuel oil in the following scenarios without changing subcategories:

      (1) Up to 48 hours during any calendar year for purposes of periodic testing of liquid fuel, maintenance, or operator training; and
      (2) During periods of gas curtailment or gas supply interruptions of any duration.

b. If Pioneer intends to fire #6 fuel oil in either Boiler #4 or Boiler #6 during a period of natural gas curtailment or supply interruption, the facility shall submit a notification of alternative fuel use to the Department and EPA within 48 hours of the declaration of each period of natural gas curtailment or supply interruption. The notification shall include the following information:

(1) Company name and address;
(2) Identification of the affected unit;
(3) Reason Pioneer is unable to use natural gas or equivalent fuel, including the date when natural gas curtailment was declared or the natural gas supply interruption began;
(4) Type of alternative fuel used; and
(5) Dates when the alternative fuel use is expected to begin and end.

[40 C.F.R. § 63.7545(f)]

c. Pioneer shall keep records of all periods of combustion of #6 fuel oil in Boilers #4 and #6 while in the "units designed to burn gas 1" subcategory including the amount (gallons) burned and the date, time, and duration of all oil firing. [40 C.F.R. § 70.6(c)(1)]

d. If either Boiler #4 or Boiler #6 switches fuels resulting in the applicability of a different subcategory, Pioneer shall provide notice to the Department and EPA of the date of the switch within 30 days of such occurrence. The notification shall identify:

(1) The name of the owner or operator of the affected source, the location of the source, the boiler(s) that have switched fuels, and the date of the notice;
(2) The currently applicable subcategory; and
(3) The date upon which the fuel switch occurred.

[40 C.F.R. §63.7545(h)]

e. If either Boiler #4 or Boiler #6 switches subcategories, Pioneer shall be in compliance with the applicable requirements of that subcategory on the effective date of the switch. [40 C.F.R. § 63.7495(h)]

f. If either Boiler #4 or Boiler #6 switches subcategories, Pioneer shall demonstrate compliance, as applicable, within 60 days of the effective date of the switch unless a compliance demonstration for the applicable subcategory had been demonstrated within the previous 12 months. [40 C.F.R. § 63.7510(k)]

Note: There are no compliance requirements for boilers switching <u>to</u> the "units designed to burn gas 1" subcategory. Boilers switching <u>to</u> the "units designed to

burn heavy liquid fuel" subcategory must demonstrate compliance through performance testing and/or fuel analysis as described later.

2. Gas 1 Fuel Subcategory

Boilers and process heaters in the "units designed to burn gas 1" subcategory are not subject to the emission limits in Tables 1 and 2, or Tables 11 through 15, or the operating limits in Table 4. [40 C.F.R. § 63.7500(e)]

Fuel analyses are not required for boilers and process heaters that fire a single type of fuel. [40 C.F.R. § 63.7510(a)(2)(i)]

3. Liquid Fuels Subcategory

When operating in the "units designed to burn heavy liquid fuel" subcategory, Boilers #4 and #6 are subject to emission limits for PM, hydrogen chloride (HCl), mercury (Hg), and CO pursuant to Tables 2 and 15 of 40 C.F.R. Part 63, Subpart DDDDD. Compliance with the PM and CO emission limits are demonstrated through periodic stack testing. Compliance with the HCl and Hg emission limits may be demonstrated either through periodic stack testing or fuel analysis.

The following monitors are considered Continuous Monitoring Systems (CMS) for Boilers #4 and #6 under 40 C.F.R. Part 63, Subpart DDDDD:

- Oxygen (O_2) CEMS
- Operating Load

Boiler #4 does not have a continuous oxygen trim system. Boiler #6 does operate a continuous oxygen trim system.

Pioneer uses definition (1) of *startup*, which defines startup as the firing of fuel in a boiler after a shutdown event for any purpose. Startup ends when any of the useful thermal energy from the boiler is supplied for heating or for any other purpose.

Pioneer does not utilize emissions averaging or efficiency credits to comply with Subpart DDDDD.

a. Emission Limits, Heavy Liquid Fuels Subcategory

Boilers #4 and #6 are subject to the following emission limits at all times except for periods of startup and shutdown, during which time Pioneer shall comply with the applicable work practice standards:

Pollutant	Emission Limit
PM (filterable)	5.9×10^{-2} lb/MMBtu
CO	130 ppm by volume on a dry basis corrected to 3% O_2, 3-run average
HCl	1.1×10^{-3} lb/MMBtu
Hg	7.3×10^{-7} lb/MMBtu

[40 C.F.R. §§ 63.7500(a)(1) and (f) and Table 2, Rows 14 and 15]

b. Operating Limits

Boilers #4 and #6 are subject to the following operating limits at all operating times except for periods of startup and shutdown, during which time Pioneer shall comply with the applicable work practice standards:

(1) The 30-day rolling average operating load shall not exceed 110% of the highest hourly average operating load recorded during the most recent successful performance stack test. [40 C.F.R. § 63.7500(a)(2) and Table 4, Row 7]
(2) For Boiler #4 only, the 30-day rolling average oxygen content shall be maintained at or above the lowest hourly average oxygen concentration measured during the most recent successful CO performance test. [40 C.F.R. § 63.7500(a)(2) and Table 4, Row 8]
(3) For Boiler #6 only, the oxygen trim system shall be operated with the oxygen level set no lower than the lowest hourly average oxygen concentration measured during the most recent CO performance test. [40 C.F.R. § 63.7525(a)(7)]

c. Performance Tests

Pioneer shall demonstrate compliance with the PM and CO emission limits through performance tests. Pioneer shall demonstrate compliance with the HCl and Hg emission limits through either performance tests or fuel analysis. Pioneer may elect to change the compliance method for HCl and Hg as allowed by Subpart DDDDD, and that flexibility is intended to be provided for in the following requirements.

(1) Except as provided in the next paragraph, Pioneer shall conduct performance stack tests for PM and CO annually. If electing to demonstrate compliance with HCl and/or Hg through performance testing, such tests shall be conducted

annually. Annual performance tests must be completed no more than 13 months after the previous performance test. [40 C.F.R. § 63.7515(a)]

(2) If the performance tests for a given pollutant for at least 2 consecutive years show that emissions are at or below 75% of the emission limit for that pollutant, and there are no changes in the operation of the boiler or its associated air pollution control equipment that could increase emissions, Pioneer may elect to conduct performance tests for that pollutant every third year. The subsequent performance tests must be conducted no more than 37 months after the previous performance test. If a performance stack test shows emissions exceed 75% of the emission limit for a pollutant, Pioneer shall resume conducting annual performance stack testing for that pollutant until all performance stack tests for that pollutant over a 2-year period are at or below 75% of the pollutant's emission limit. [40 C.F.R. §§ 63.7515(b) and (c)]

(3) Performance tests which are conducted shall be performed in accordance with requirements in Table 5. [40 C.F.R. § 63.7520(b)]

(4) Pioneer shall:

(i) Conduct performance tests at representative operating load conditions while burning the type of fuel or mixture of fuels that has the highest content of chlorine and mercury;
(ii) Demonstrate compliance and establish operating limits based on these performance tests; and
(iii) Comply with the operating limit for operating load conditions specified in Table 4 following each performance test and until the next performance test. [40 C.F.R. § 63.7520(c)]

(5) Pioneer shall conduct a minimum of three separate test runs for each performance test required. [40 C.F.R. § 63.7520(d)]

(6) Pioneer shall use the methodology in § 63.7520(e) to convert measured concentrations to lb/MMBtu emission rates for compliance purposes. If the measured concentration is below the detection level of the method used, Pioneer shall use the method detection level as the measured emissions level for the pollutant in calculating compliance. [40 C.F.R. §§ 63.7520(e) and (f)]

d. Fuel Analysis

Pioneer shall demonstrate compliance with the HCl and Hg emission limits through either performance tests or fuel analysis. Pioneer has elected to use performance tests for these pollutants. However, Pioneer may elect to change the compliance

method, and that flexibility is intended to be provided for in the following requirements.

If electing to demonstrate compliance with HCl and/or Hg emission limits through fuel analysis, Pioneer shall comply with the following:

(1) Pioneer shall conduct a monthly fuel analysis for HCl and/or Hg (as applicable) except as provided for in the next paragraph. Samples for monthly fuel analyses shall be taken no less than 14 calendar days apart unless multiple samples are taken per month. [40 C.F.R. § 63.7515(e)]

(2) If each of 12 consecutive monthly fuel analyses for a given pollutant demonstrates 75% or less of the compliance level for that pollutant, Pioneer may elect to decrease fuel analysis frequency for that pollutant to quarterly. If any quarterly sample exceeds 75% of the compliance level for a given pollutant, Pioneer shall return to monthly monitoring until 12 consecutive months of fuel analyses are again less than 75% of the compliance level. [40 C.F.R. § 63.7515(e)]

(3) Fuel analyses shall be performed in accordance with Table 6. The concentration of pollutants shall be determined in units of lb/MMBtu. [40 C.F.R. §§ 63.7521(a) & (e)]

(4) Fuel analysis is only required for fuel oil since it is the only type of fuel fired in the boilers subject to an emission limit in Tables 2 or 15. [40 C.F.R. § 63.7521(a)]

(5) Boilers #4 and #6 are not subject to the composite fuel sampling requirements contained in 40 C.F.R. §§ 63.7521(c) and (d) since both gaseous and liquid fuels are exempt pursuant to 40 C.F.R. § 63.7521(a).

(6) Pioneer shall develop a site-specific fuel monitoring plan according to the procedures and requirements of 40 C.F.R. §§ 63.7521(b)(1) and (2). [40 C.F.R. § 63.7521(b)]

e. Continuous Compliance and Monitoring Requirements

(1) Pioneer shall operate and maintain an oxygen analyzer system on Boilers #4 and #6 as defined in § 63.7575. The oxygen analyzer system is considered a CMS. [40 C.F.R. § 63.7525(a)]

(2) Pioneer shall install, operate, and maintain a CMS in order to demonstrate compliance with the operating load limit, the 30-day rolling average limit on

oxygen content (Boiler #4 only), and the oxygen level limit (Boiler #6 only) in accordance with §§ 63.7525(d)(1) through (5). [40 C.F.R § 63.7525(d)]

(3) For each CMS, Pioneer shall develop a site-specific monitoring plan that addresses design, data collection, and the quality assurance and quality control elements outlined in 40 C.F.R. §§ 63.8(d) and 63.7505(d)(1)(i) through (iii). [40 C.F.R. § 63.7505(d)(1)]

(4) Pioneer shall monitor and collect CMS data according to 40 C.F.R. § 63.7535. [40 C.F.R. § 63.7535(a)]

(i) Pioneer shall operate the monitoring systems and collect data at all required intervals at all times that the boiler is operating and compliance is required, except for periods of monitoring system malfunctions or out-of-control periods, and required monitoring system quality assurance or control activities, including, as applicable, calibration checks, required zero and span adjustments, and scheduled CMS maintenance as defined in the facility's site-specific monitoring plan. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. Pioneer shall complete monitoring system repairs in response to monitoring system malfunctions or out-of-control periods and to return the monitoring system to operation as expeditiously as practicable. [40 C.F.R. § 63.7535(b)]

(ii) Pioneer may not use data recorded during periods of startup and shutdown, monitoring system malfunctions or out-of-control periods, repairs associated with monitoring system malfunctions or out-of-control periods, or required monitoring system quality assurance or control activities in data averages and calculations used to report emissions or operating levels. Pioneer shall record and make available upon request results of CMS performance audits and dates and duration of periods when the CMS is out of control to completion of the corrective actions necessary to return the CMS to operation consistent with the site-specific monitoring plan. Pioneer shall use all the data collected during all other periods in assessing compliance and the operation of the control device and associated control system. [40 C.F.R. § 63.7535(c)]

(iii) Except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities (including, as applicable, system accuracy audits, calibration checks, and required zero and span adjustments), failure to collect required data is a deviation of the monitoring

requirements. In calculating monitoring results, no data shall be used that was collected during periods of startup and shutdown, when the monitoring system is out of control as specified in the site-specific monitoring plan, while conducting repairs associated with periods when the monitoring system is out of control, or while conducting required monitoring system quality assurance or quality control activities. Pioneer shall calculate monitoring results using all other monitoring data collected while the process is operating. Pioneer shall report all periods when the monitoring system is out of control in the semi-annual report. [40 C.F.R. § 63.7535(d)]

(iv) Operation above the established maximum or below the established minimum operating limits shall constitute a deviation of established operating limits listed in Table 4 except during performance tests conducted to determine compliance with the emission limits or to establish new operating limits. Operating limits must be confirmed or reestablished during performance tests. [40 C.F.R. § 63.7540(a)(1)]

f. Recordkeeping

Pioneer shall maintain records in accordance with 40 C.F.R. Part 63, Subpart DDDDD including, but not limited to, the following:

(1) Copies of notifications and reports submitted to comply with the subpart along with any supporting documentation; [40 C.F.R. § 63.7555(a)(1)]
(2) Records of performance tests, fuel analyses, or other compliance demonstrations and performance evaluations; [40 C.F.R. § 63.7555(a)(2)]
(3) Records required by 40 C.F.R. Part 63, Subpart DDDDD, Table 8 including records of all monitoring data and calculated averages for applicable operating limits (including monthly fuel analyses, oxygen content, and boiler operating load) to show continuous compliance with each emission limit; [40 C.F.R. § 63.7555(c)]
(4) Monthly fuel use including the types and amounts of fuel fired; [40 C.F.R. § 63.7555(d)(1)]
(5) Copies of all calculations and supporting documentation of maximum chlorine and mercury fuel input or emission rates (as applicable) that were done to demonstrate continuous compliance with the HCl and Hg emission limits. [40 C.F.R. §§ 63.7555(d)(3) and (4)]
(6) If Pioneer elects to stack test less frequently than annually, records that document that the emissions in the previous stack test(s) were less than 75% of the applicable emission limit and documentation that there was no change in source operations including fuel composition and operation of air pollution control equipment that would cause emissions of the relevant pollutant to increase within the past year; [40 C.F.R. § 63.7555(d)(5)]

(7) Records of the occurrence and duration of each malfunction of the boilers or of the associated air pollution control and monitoring equipment; [40 C.F.R. § 63.7555(d)(6)]
(8) Records of actions taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions in §63.7500(a)(3), including corrective actions to restore the malfunctioning boiler, air pollution control, or monitoring equipment to its normal or usual manner of operation; and [40 C.F.R. § 63.7555(d)(7)]
(9) Records of the calendar date, time, occurrence, and duration of each startup and shutdown. [40 C.F.R. § 63.7555(d)(9)]

g. Notifications and Reports

Pioneer shall submit to the Department and EPA all notifications and reports required by 40 C.F.R. Part 63, Subpart DDDDD including, but not limited to, the following:

(1) Pioneer shall submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin. [40 C.F.R. § 63.7545(d)]

(2) Pursuant to 40 C.F.R. § 63.7550(h)(1), Pioneer is required to submit the results of each performance test to EPA within 60 days after the date of completing each performance test. However, 06-096 C.M.R. ch. 140, § 3(E)(7)(b)(viii)(d), i.e., Standard Condition (8)(D), requires results of performance tests to be submitted to the Department within 30 days from the date of test completion. These requirements be streamlined to avoid confusion. Therefore, only the more stringent (30-day) requirement is referenced in the Order of this license.

The performance stack test report must verify that the operating limits for the boiler have not changed or provide documentation of the revised operating limits established. [40 C.F.R. §§ 63.7515(f)]

(3) Pioneer shall prepare and submit to EPA and the Department a compliance report every six months which contains the information contained in §§ 63.7540(b) and 63.7550(c) as applicable. [40 C.F.R. § 63.7550(a)]

(4) Each semi-annual compliance report shall cover the reporting period of January 1 through June 30 or July 1 through December 31 (as applicable). Each semi-annual compliance report shall be postmarked or submitted no later than July 31 or January 31 (respectively). [40 C.F.R. §§ 63.7550(b)(3) and (4)]

(5) Semi-annual compliance reports and results of compliance tests shall be submitted electronically to the EPA via their electronic reporting tool (ERT) CEDRI. [40 C.F.R. § 63.7550(h)]

4. General Requirements

The following requirements are applicable regardless of which subcategory compliance is being demonstrated with.

a. Continuous Compliance

At all times, Pioneer must operate and maintain Boilers #4 and #6, Process Heater #8, and Thermal Oil Heater #1, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 C.F.R. § 63.7500(a)(3)]

b. Work Practice Standards

(1) Boiler #4 does not have a continuous oxygen trim system. Therefore, as a work practice standard, Pioneer shall perform annual tune-ups on Boiler #4 as specified in §§ 63.7540(a)(10)(i) through (vi) and below. Each tune-up must be conducted no more than 13 months after the previous tune-up. Pioneer shall conduct the tune-up while burning the type of fuel that provided the majority of the heat input to the boiler over the 12 months prior to the tune-up. [40 C.F.R. §§ 63.7515(d), 63.7540(a)(10), and Table 3, Row 3]

(2) Boiler #6 does have a continuous oxygen trim system. Therefore, as a work practice standard, Pioneer shall perform tune-ups on Boiler #6 every five years as specified in §§ 63.7540(a)(10)(i) through (vi) and below. Each tune-up must be conducted no more than 61 months after the previous tune-up. Pioneer shall conduct the tune-up while burning the type of fuel that provided the majority of the heat input to the boiler over the 12 months prior to the tune-up. [40 C.F.R. §§ 63.7515(d), 63.7540(a)(12), and Table 3, Row 1]

(3) Pioneer shall set the oxygen level for Boiler #6 no lower than the oxygen concentration measured during the most recent tune-up. [40 C.F.R. § 63.7540(12)]

(4) Process Heater #8 and Thermal Oil Heater #1 are each process heaters in the units designed to burn gas 1 fuels subcategory with a heat input of 5 MMBtu/hr or less. Therefore, as a work practice standard, Pioneer shall perform tune-ups on Process Heater #8 and Thermal Oil Heater #1 every five years as specified in §§ 63.7540(a)(10)(i) through (vi) and below. Each tune-up must be conducted no more than 61 months after the previous tune-up. [40 C.F.R. §§ 63.7500(e), 63.7515(d), 63.7540(a)(12), and Table 3, Row 1]

c. Tune-Up Program

(1) The tune-up program, conducted to demonstrate continuous compliance, shall be performed as specified below:

(i) As applicable, inspect the burner, and clean or replace any component of the burner as necessary. For Boiler #6, Process Heater #8, and Thermal Oil Heater #1, delay of the burner inspection until the next scheduled shutdown is permitted for up to 72 months from the previous inspection. [40 C.F.R. §§ 63.7540(a)(10)(i) and (12)]

(ii) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern, consistent with the manufacturer's specifications. [40 C.F.R. § 63.7540(a)(10)(ii)]

(iii) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure it is correctly calibrated and functioning properly. [40 C.F.R. § 63.7450(a)(10)(iii)]

(iv) Optimize total emissions of CO, consistent with manufacturer's specifications. [40 C.F.R. § 63.7540(a)(10)(iv)]

(v) Measure the concentration in the effluent stream of CO in parts per million by volume (ppmv), and oxygen in volume percent, before and after adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. [40 C.F.R. § 63.7540(a)(10)(v)]

(vi) If a unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of start-up. [40 C.F.R. § 63.7540(a)(13)]

(2) Tune-Up Report: A tune-up report shall be maintained onsite and, if requested, submitted to the Department and/or EPA. The report shall contain the following information:

(i) The concentration of CO in the effluent stream (ppmv) and oxygen (volume percent) measured at high fire or typical operating load both **before** and **after** the boiler tune-up;

(ii) A description of any corrective actions taken as part of the tune-up; and

(iii)For Boilers #4 and #6, the type and amount of fuel used in the 12 months prior to the tune-up.
[40 C.F.R. § 63.7540(a)(10)(vi)]

d. Recordkeeping

(1) Records shall be kept for a period of 5 years. [40 C.F.R. § 63.7560(b)]
[Note: All records must be kept for a period of six years pursuant to Standard Condition (6).]

(2) Records shall be kept on-site, or be accessible from on-site, for at least 2 years. Records may be kept off site for the remaining 3 years. [40 C.F.R. § 63.7560(c)]

B. 40 C.F.R. Part 63, Subpart OOO

Pioneer is subject to applicable requirements contained in *National Emission Standards for Hazardous Air Pollutant Emissions: Manufacture of Amino/Phenolic Resins*, 40 C.F.R. Part 63, Subpart OOO (Subpart OOO). This subpart applies to owners and operators of processes that produce amino/phenolic resins at a major source of HAP. The affected source includes all APPUs and associated heat exchangers, control equipment, storage vessels, and other specified equipment. Pioneer is considered an existing affected source because construction of the affected equipment commenced prior to December 14, 1998, and the equipment has not been reconstructed.

1. Applicability

a. Storage Vessels

None of the tanks at Pioneer are subject to requirements in Subpart OOO.

Tank #30 stores a 37% formaldehyde solution that is used in the production of amino/phenolic resins. It is part of the affected source as defined by the regulation. However, Subpart OOO contains no applicable requirements for Tank #30 because the formaldehyde solution has a vapor pressure less than 1.9 pounds per square inch absolute (psia).

Tank #29 stores methanol, which is not used in the production of amino/phenolic resins. All other storage vessels at the facility have a capacity of less than 20,000 gallons.

[40 C.F.R. §§ 63.1400(b) and 63.1404(a)]

b. Reactors

As described earlier, Reactors K1 and K2 are designated as part of an APPUs.

Reactor K8 is not currently designated as part of an APPU but has the potential to be. At least once per year, Pioneer shall perform an evaluation to determine whether Reactor K8 has become an APPU. Reactor K8 has become an APPU if amino/phenolic resins (i.e., melamine resins) were produced for the greatest operating time over the proceeding 5-year period. [40 C.F.R. § 63.1400(g)(5)]

If Reactor K8 becomes an APPU through an annual evaluation, Pioneer shall apply to modify this air emission license to address applicable requirements within 60 days of the date of the evaluation. [06-096 C.M.R. ch. 140, BPT]

c. Process Vents

There are no applicable requirements in 40 C.F.R. § 63.1405 because Pioneer does not operate continuous process vents as defined by the regulation.

Pioneer does have reactor batch process vent. Specifically, Pioneer has aggregate batch vent streams with requirements pursuant to 40 C.F.R. § 63.1408.

d. Heat Exchange System

Pioneer is not subject to the monitoring requirements in 40 C.F.R. § 63.1409 because the heat exchange system is operated with the minimum pressure on the cooling water side at least 35 kilopascals greater than the maximum pressure on the process side. [40 C.F.R. § 63.1409(a)(1)]

e. Equipment Leaks

Because Pioneer operates equipment that contains or contacts 5% HAP, by weight, or greater and operates 300 hours per year or more, the affected equipment that is part of the APPU is subject to requirements for equipment leaks in 40 C.F.R. § 63.1410. Specifically, Pioneer must comply with the requirements of *National Emission Standards for Equipment Leaks – Control Level 2 Standards*, 40 C.F.R. Part 63, Subpart UU, except for § 63.1030. The requirements of 40 C.F.R. Part 63, Subpart UU are addressed in section III(E) of this license.

f. Pressure Relief Devices

Pioneer utilizes pressure relief devices in organic HAP gas or vapor service. These include rupture disks on Reactors K1 and K2. The pressure relief devices at Pioneer are not routed to a control device, process, fuel gas system, or drain system.

2. Emission Standards

   Reactors K1 and K2 are part of an aggregate batch vent stream, as defined in the regulation and in section I(D) of this license.

   Pioneer shall reduce uncontrolled organic HAP emissions from the aggregate batch vent stream by at least 83%, by weight, or to a concentration of 20 ppmv, whichever is less stringent. [40 C.F.R. § 63.1408(a)(2)(ii)]

3. Requirements for Pressure Relief Devices

   a. Except during a pressure release event, Pioneer shall operate each pressure relief device in organic HAP gas or vapor service with an instrument reading of less than 500 ppm above background as described in Method 21 of 40 C.F.R. Part 60, Appendix A (Method 21). [40 C.F.R. § 63.1411(a)]

   b. For pressure relief devices in organic HAP gas or vapor service, Pioneer shall comply with either (1) or (2) below following a pressure release, as applicable.

      (1) If the pressure relief device does not consist of or include a rupture disk, Pioneer shall conduct instrument monitoring, as described by Method 21, no later than five calendar days after the pressure relief device returns to organic HAP service following a pressure release to verify that the pressure relief device is operating with an instrument reading of less than 500 ppm above background, except as provided in 40 C.F.R. § 63.1024(d) (delay of repair).

      (2) If the pressure relief device consists of or includes a rupture disk, Pioneer shall install a replacement disk as soon as practicable after a pressure release, but no later than five calendar days after the pressure release, except as provided in 40 C.F.R. § 63.1024(d) (delay of repair). [40 C.F.R. § 63.1411(b)]

   c. Delay of repair is allowed for any of the conditions specified in 40 C.F.R. §§ 63.1024(d)(1) – (5). Pioneer shall maintain a record of the facts that explain any delay of repairs and, where appropriate, why the repair was technically infeasible without a process shutdown. [40 C.F.R. §§ 63.1411(b) and 63.1024(d)]

   d. Emissions of organic HAP to the atmosphere from pressure relief devices in organic HAP service are prohibited, and Pioneer shall comply with the following requirements for all pressure relief devices in organic HAP service.

(1) Pioneer shall equip each pressure relief device in organic HAP service with a device(s) or parameter monitoring system that is capable of:

(i) Identifying the pressure release;
(ii) Recording the time and duration of each pressure release; and
(iii) Notifying operators immediately that a pressure release is occurring. The device or monitoring system may be either specific to the pressure relief device itself or may be associated with the process system or piping sufficient to indicate a pressure release to the atmosphere. Examples of these types of devices and systems include, but are not limited to, a rupture disk indicator, magnetic sensor, motion detector on the pressure relief valve stem, flow monitor, or pressure monitor.

(2) If any pressure relief device in organic HAP service releases to atmosphere as a result of a pressure release event, Pioneer shall calculate the quantity of organic HAP released during each pressure release event and report this quantity as required in 40 C.F.R. § 63.1417(f)(13)(iii). Calculations may be based on data from the pressure relief device monitoring alone or in combination with process parameter monitoring data and process knowledge.

[40 C.F.R. § 63.1412(c)]

4. Compliance Demonstration

Continuous compliance with the reduction standard for the aggregate batch vent stream shall be demonstrated following the procedures in 40 C.F.R. Part 63, Subpart SS, for closed vent systems. [40 C.F.R. §§ 63.1413(d)(3) and 63.1413(c)(3)] The requirements of 40 C.F.R. Part 63, Subpart SS are addressed in section III(F) of this license.

5. Recordkeeping Requirements

a. Pioneer shall keep copies of all applicable records and reports required by 40 C.F.R. Part 63, Subpart OOO, for at least five years. [40 C.F.R. § 63.1416(a)] Note: All records must be kept for a period of six years pursuant to Standard Condition (6).

b. All applicable records shall be maintained in such a manner that they can be readily accessed. The most recent six months of records shall be retained on site or shall be accessible from a central location by computer or other means that provides access within two hours after a request. The remaining four and one-half years of records may be retained offsite. Records may be maintained in hard copy or computer-readable form. [40 C.F.R. § 63.1416(a)(1)]

c. Pioneer shall maintain records of the temperature monitored on RTO #1 and Boiler #5/TO pursuant to 40 C.F.R. § 63.1416(c).

d. Pioneer shall maintain records specifying the times and duration of periods of monitoring system breakdowns, repairs, calibrations checks, zero (low-level) and high-level adjustments, and any other periods of process or control device operation when monitors are not operating. [40 C.F.R. § 63.1416(e)(3)(ii)(C)]

e. Pioneer shall maintain records of the following information for pressure relief devices in organic HAP service:

f. A list of identification numbers for all pressure relief devices noting those equipped with rupture disks;

g. The dates and results of the monitoring following a pressure release. The results shall include:

(1) The background level measured during each Method 21 test; and
(2) The maximum instrument reading measured at each piece of equipment during each Method 21 test.

h. Records of each pressure release to the atmosphere, including the following:

(1) The source, nature, and cause of the pressure release;
(2) The date, time, and duration of the pressure release;
(3) An estimate of the quantity of total HAP emitted during the pressure release and the calculations used for determining this quantity;
(4) The actions taken to prevent this pressure release; and
(5) The measures adopted to prevent future such pressure releases.

[40 C.F.R. § 63.1416(g)(5)]

6. Reporting Requirements

a. Pioneer shall submit periodic reports (semiannual or quarterly reports, as applicable) pursuant to the requirements of 40 C.F.R. § 63.1417(f).

b. If a source fails to meet an applicable standard, Pioneer shall report such events in the periodic report. Pioneer shall report the number of failures to meet the applicable standard, and for each instance, report the date, time, and duration of each failure. For each failure, the report must include a list of the affected sources or equipment, and estimate of the quantity of each regulated pollutant emitted over any emission limit, and a description of the method used to estimate emissions. [40 C.F.R. § 63.1417(g)]

c. If changes in production occur where Reactor K1 or K2 would no longer be considered part of an APPU pursuant to §§ 63.1400(g)(7) or (8), Pioneer shall submit notification of changes to the primary product for an APPU. When notification is made in response to a change in the primary product under § 63.1400(g)(7), rationale for why it is anticipated that no amino/phenolic resins will be produced in the process unit in the future shall be included. [40 C.F.R. § 63.1417(h)(4)]

7. General Requirements

a. The emission limits of Subpart OOO apply at all times except during periods of non-operation of the affected source (or specific potion thereof) resulting in cessation of the emissions to which this subpart applies. [40 C.F.R. § 63.1400(k)(1)]

b. At all times, Pioneer must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the owner or operator to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether a source is operating in compliance with operation and maintenance requirements will be based on information available to the Department, which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 C.F.R. § 63.1400(k)(4)]

C. 40 C.F.R. Part 63, Subpart EEEE

Pioneer is subject to applicable requirements contained in *National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline)*, 40 C.F.R. Part 63, Subpart EEEE (Subpart EEEE). This subpart applies to owners and operators of organic liquids distribution (OLD) (non-gasoline) operations at a major source of HAP. The affected source is the collection of activities and equipment used to distribute organic liquids into, out of, or within a facility. Activities include, but are not limited to, storage, transfer, blending, compounding, and packaging. Pioneer is considered an existing affected source because construction of the affected equipment commenced prior to April 2, 2002, and the equipment has not been reconstructed.

1. Applicability

a. Storage Tanks

Pioneer's storage tanks are included in the affected source for Subpart EEEE. However, due to the size of each storage tank and the vapor pressures of the

products stored, they are not subject to control requirements pursuant to 40 C.F.R. § 63.2346(a) and Tables 2 and 2b. Therefore, this equipment is subject only to the notification, recordkeeping, and reporting requirements of 40 C.F.R. § 63.2343.

b. Reactors

Reactor K3 is used for the blending of organic liquids and is therefore included in the affected source for Subpart EEEE pursuant to the definition of "organic liquids distribution (OLD) operation" in § 63.2406. It is considered a storage tank, and the annual average true vapor pressure of the organic liquids it contains has the potential to exceed 27.6 kilopascals (4.0 psia). Although Reactor K3 is currently not operating, Pioneer would like to maintain the flexibility to operate this equipment in the future.

c. Chemical Loading/Unloading Operations

Chemical loading/unloading operations, including Pioneer's unloading operations for methanol, formaldehyde, and purchased phenolic resins are included in the affected source for Subpart EEEE. However, Pioneer performs unloading of chemicals only and does not load chemicals containing organic HAP into transport vehicles. Therefore, this equipment is subject only to the notification, recordkeeping, and reporting requirements of 40 C.F.R. § 63.2343.

d. Equipment Leak Components

Equipment leak components include each pump, valve, and sampling connection system used in organic liquids service at an OLD operation. Valve types include control, globe, gate, plug, and ball. Relief and check valves are excluded. Equipment leak components are included in the affected source for Subpart EEEE.

Pursuant to 40 C.F.R. § 63.2346(c), requirements for equipment leak components only apply if the affected source has at least one storage tank or transfer rack that meets the applicability criteria for control in Tables 2 or 2b of the regulation. Because Reactor K3 is a blending tank potentially subject to control requirements in Table 2b for storage tanks, Pioneer is subject to the requirements for equipment leak components.

2. Emission Limits

a. Pioneer shall reduce uncontrolled organic HAP emissions from Reactor K3 by at least 95%, by weight, or to a concentration equal to or less than 20 ppmdv corrected to 3% O_2, whichever is less stringent. [40 C.F.R. § 63.2346(a)(1) and Table 2b, Row 1]

b. Pioneer shall be in compliance with this emission limit at all times, except during periods of nonoperation of Reactor K3 resulting in the cessation of emissions of organic HAP.

c. The use of a bypass line at any time on a closed vent system to divert a vent stream from Reactor K3 to the atmosphere or to a control device not meeting the requirements of this regulation is a deviation of an emissions standard. [40 C.F.R. § 63.2378(e)(1)]

3. Compliance Demonstration and Monitoring

Continuous compliance with the emission limit for Reactor K3 shall be demonstrated following the procedures in 40 C.F.R. Part 63, Subpart SS, for closed vent systems. [40 C.F.R. §§ 63.2346(a)(1), 63.2378(a), and Table 8] The requirements of 40 C.F.R. Part 63, Subpart SS are addressed in section III(F) of this license.

4. Emptying and Degassing

Pioneer shall comply with the following requirements for Reactor K3 for tank emissions during storage tank shutdown operations (i.e., emptying and degassing of a storage tank). Pioneer shall comply with the following during tank emptying and degassing until the vapor space concentration inside Reactor K3 is less than 10% of the lower explosion limit (LEL). Pioneer shall determine the concentration using process instrumentation or portable measurement devices and follow procedures for calibration and maintenance according to the manufacturer's specifications.

a. Pioneer shall remove organic liquids from Reactor K3 as much as practicable.

b. Pioneer shall control emissions from Reactor K3 to the emissions standard for normal operation as described above.

c. Pioneer shall comply with the general requirements for complying with this subpart as described below including, if appropriate, records of existing standard site procedures used to empty and degas equipment for safety purposes.

[40 C.F.R. § 63.2346(a)(6)]

5. Equipment Leak Components

For each pump, valve, and sampling connection that operates in organic liquids service for at least 300 hours per year, Pioneer shall comply with the applicable requirements under 40 C.F.R. Part 63, Subpart TT, Subpart UU, or Subpart H. [40 C.F.R. § 63.2346(c)] Pioneer has elected to comply with the requirements of *National Emission Standards for Equipment Leaks – Control Level 2 Standards*, 40 C.F.R.

Part 63, Subpart UU. The requirements of 40 C.F.R. Part 63, Subpart UU are addressed in section III(E) of this license.

Pumps, valves, and sampling connectors that are insulated to provide protection against persistent sub-freezing temperatures are subject to the "difficult to monitor" provisions. [40 C.F.R. § 63.2346(c)]

6. Emissions Sources Not Requiring Control

   a. For each storage tank less than 5,000 gallons and for the transfer rack, Pioneer shall keep documentation that verifies that each unit is not required to be controlled. The documentation must be kept up to date (i.e., all such emission sources at a facility are identified in the documentation regardless of when the documentation was last compiled) and must be in a form suitable and readily available for expeditious inspection and review including records stored in electronic form in a separate location. [40 C.F.R. § 63.2343(a)]

   b. If one or more of the following occur, Pioneer must submit a subsequent Compliance report as specified in §§ 63.2343(b)(2) and (c)(2):

      (1) Any storage tank or transfer rack becomes subject to control under Subpart EEEE;
      (2) Any storage tank equal to or greater than 5,000 gallons becomes part of the affected source but is not subject to any of the emission limitations, operating limits, or work practice standards of this subpart;
      (3) Any transfer rack (except those racks at which only unloading of organic liquids occurs) became part of the affected source; or
      (4) The company name or address has changed.

      [40 C.F.R. § 63.2343(d)]

7. Recordkeeping Requirements

   In addition to those already cited, Pioneer shall keep the records required by 40 C.F.R. § 63.2390 including, but not limited to, the following:

   a. For each storage tank that is part of the affected source and has a capacity greater than 5,000 gallons, Pioneer shall keep documentation, including a record of the annual average true vapor pressure of the total Table 1 organic HAP in the stored organic liquid, that verifies the storage tank is not required to be controlled under Subpart EEEE. The documentation must be kept up-to-date and must be in a form suitable and readily available for expeditious inspection and review, including records stored in electronic form in a separate location. [40 C.F.R. § 63.2343(b)(3)]

b. Pioneer shall keep all applicable records identified in 40 C.F.R. Part 63, Subparts A and SS including records related to notifications and reports; periods of startup, shutdown, and malfunction (SSM); performance tests; CMS; performance evaluation plans; and records required to demonstrate continuous compliance. [40 C.F.R. §§ 63.2390(b)(1) and (2)]

c. In addition to the information required in 40 C.F.R. § 63.998(c), the manufacturer's specifications or Pioneer's written procedures must include a schedule for calibrations, preventative maintenance procedures, a schedule for preventative maintenance, and corrective actions to be taken if a calibration fails. [40 C.F.R. § 63.2390(b)(3)]

d. Pioneer shall keep records of the total actual annual facility-level organic liquid loading volume through transfer racks to document the applicability or inapplicability of the emission limitations in Subpart EEEE, Table 2, Row 7 or 8, as applicable. [40 C.F.R. § 63.2390(d)]

e. For each deviation from an emission limit, operating limit, and work practice standard, Pioneer shall keep the following records:

(1) In the event that an affected unit fails to meet an applicable standard, record the number of failures. Record the date, time and duration of each failure.
(2) For each failure to meet an applicable standard, record and retain a list of the affected sources or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit and a description of the method used to estimate the emissions.
(3) Record actions taken to minimize emissions and any corrective actions taken to return the affected unit to its normal or usual manner of operation.

[40 C.F.R. § 63.2390(f)]

f. For each flow event from a bypass line subject to the requirements in 40 C.F.R. § 63.2378(e)(1), Pioneer shall maintain records sufficient to determine whether or not the detected flow included flow requiring control. For each flow event from a bypass line requiring control that is released either directly to the atmosphere or to a control device not meeting the requirements of this regulation, Pioneer shall include an estimate of the volume of gas, the concentration of organic HAP in the gas, and the resulting emissions of organic HAP that bypassed the control device using process knowledge and engineering estimates. [40 C.F.R. § 63.2390(g)]

(1) Records shall be in a form suitable and readily available for expeditious inspection and review, including records stored in electronic form at a separate location. [40 C.F.R. § 63.2394(a)]

(2) Pioneer shall keep files of all information (including all reports and notifications) for at least five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. [40 C.F.R. § 63.2394(b)] Note: All records must be kept for a period of six years pursuant to Standard Condition (6).

(3) Pioneer shall keep each record on site for at least two years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. Pioneer may keep the records off site for the remaining years. [40 C.F.R. § 63.2394(c)]

8. Reporting Requirements

a. Pioneer shall submit semi-annual compliance reports pursuant to the requirements of 40 C.F.R. § 63.2386(d) and 40 C.F.R. Part 63, Subpart SS. [40 C.F.R. § 63.2386(a) and Table 11]

b. Semi-annual compliance reports shall be submitted electronically to the EPA via their electronic reporting tool CEDRI. [40 C.F.R. § 63.2386(f)]

c. Within 60 days after the date of completing each performance test, Pioneer shall submit the results of any performance test electronically to the EPA via their electronic reporting tool CEDRI. [40 C.F.R. § 63.2386(g)]

Note: Pursuant to Standard Condition (8)(D), Pioneer is also required to submit a copy of the performance test report to the Department within 30 days of completing each performance test.

9. General Requirements

a. Pioneer shall comply with the applicable emission limitations, operating limits, and work practice standards in Subpart EEEE at all times when the equipment identified as part of the affected source is in OLD operation. [40 C.F.R. § 63.2350(a)]

b. At all times, Pioneer shall operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require Pioneer to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether a source is operating in compliance with operation and maintenance requirements will be based on information available to the Department or EPA which may include, but is not limited to, monitoring results, review of operation and maintenance procedures,

review of operation and maintenance records, and inspection of the source. [40 C.F.R. § 63.2350(d)]

D. 40 C.F.R. Part 63, Subpart FFFF

Pioneer is subject to applicable requirements contained in *National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing*, 40 C.F.R. Part 63, Subpart FFFF (Subpart FFFF). This subpart applies to owners and operators of miscellaneous organic chemical manufacturing process units (MCPUs) at a major source of HAP. The affected source includes all equipment which collectively function to produce a product included in § 63.2435(b)(1) of the regulation including, but not limited to, storage tanks, pumps, compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, and instrumentation. Pioneer is considered an existing affected source because construction of the affected equipment commenced prior to April 4, 2002, and the equipment has not been reconstructed.

1. Applicability

Subpart FFFF does not apply to equipment which is an affected source under another subpart of 40 C.F.R. Part 63. [40 C.F.R. § 63.2435(b)(3)]

a. Storage Tanks

All of Pioneer's storage tanks are included in the affected source of 40 C.F.R. Part 63, Subpart OOO or Subpart EEEE and are therefore not subject to requirements in Subpart FFFF.

b. Reactors

Reactors K1 and K2 primarily produce melamine resins, which is an organic chemical classified under NAICS code 325. [40 C.F.R. § 63.2435(b)(1)(ii)] However, these reactors are subject to requirements pursuant to 40 C.F.R. Part 63, Subpart OOO, and are therefore not subject to the requirements of Subpart FFFF.

Reactor K3 is subject to requirements pursuant to 40 C.F.R. Part 63, Subpart EEEE, and is therefore not subject to the requirements of Subpart FFFF.

Reactors K4 – K8 are subject to Subpart FFFF. They are considered part of an MCPU because they are used to manufacture polyester and polyamide resins as their primary product. Both polyester and polyamide resin manufacture are included in NAICS code 325, and Reactors K4 – K8 are not addressed by another subpart of 40 C.F.R. Part 63.

c. Chemical Loading/Unloading Operations

Chemical loading/unloading operations, including Pioneer's unloading operations for methanol, formaldehyde, and purchased phenolic resins are included in the affected source for Subpart EEEE. These operations are therefore not subject to the requirements of Subpart FFFF.

d. Equipment Leaks

Subpart FFFF has requirements for equipment leaks associated with an MCPU (Reactors K4 – K8). The equipment subject to these requirements include each pump, compressor, agitator, pressure relief device, sampling connection system, open-ended valve or line, valve, connector, and instrumentation system in organic HAP service; and any control devices or systems used to comply with the emission limits of Subpart FFFF.

2. Requirements for Reactors K4 – K8

Reactors K4 – K8 have batch process vents. Pursuant to 40 C.F.R. § 63.2460(b), Pioneer was required to determine the group status of the batch process vents. All of the batch process vents are controlled by a closed vent system that routes emissions to a control device (i.e., either Boiler #5/TO or RTO #1). Performance tests have been conducted under hypothetical worst-case conditions. Therefore, the batch process vents are designated as Group 1 pursuant to 40 C.F.R. § 63.2460(b)(5).

a. Pioneer shall reduce uncontrolled organic HAP emissions from Reactors K4 – K8 by at least 98% by weight, or to a concentration equal to or less than 20 ppmdv corrected to 3% O_2, whichever is less stringent, by venting emissions through a closed-vent system to either Boiler #5/TO or RTO #1. [40 C.F.R. § 63.2460(a) and Table 2, Row 1]

b. Pioneer was required to conduct an initial performance test for the percent reduction limit in Table 2 of the regulation under worst-case conditions. [40 C.F.R. § 63.2460(c)(2)(ii)] Pioneer shall conduct a subsequent performance demonstration equivalent to an initial compliance demonstration within 180 days of a change in the worst-case conditions. [40 C.F.R. § 63.2460(c)(2)(vi)]

c. Any performance test shall establish emission profiles and be conducted under worst-case conditions according to 40 C.F.R. § 63.1257(b)(8) instead of under normal operating conditions. [40 C.F.R. § 63.2460(c)(2)(ii)]

d. Pioneer shall install, calibrate, and operate a flow indicator at the inlet of the control device to identify periods of no flow. Periods of no flow may not be used

in daily or block averages, and it may not be used in fulfilling a minimum data availability requirement. [40 C.F.R. § 63.2460(c)(7)]

3. Requirements for Equipment Leaks

a. Pioneers shall comply with the requirements of 40 C.F.R. Part 63, Subpart UU, and the requirements referenced therein, except as specified in 40 C.F.R. §§ 63.2480(b) and (d) – (f). [40 C.F.R. § 63.2480(a) and Table 6, Row 1] The requirements of Subpart UU are described in section III(E) this license.

b. Pioneer shall comply with the following requirements for pressure relief devices, such as relief valves or rupture disks, in organic HAP gas or vapor service instead of the pressure relief device requirements in 40 C.F.R. Subpart UU, § 63.1030. [40 C.F.R. § 63.2480(e)]

(1) Except during a pressure release, Pioneer shall operate each pressure relief device in organic HAP gas or vapor service with an instrument reading of less than 500 ppm above background as measured by the method in 40 C.F.R. § 63.1023(b). [40 C.F.R. § 63.2480(e)(1)]

(2) Following a pressure release, Pioneer shall comply with the following:

(i) If the pressure relief device does not consist of or include a rupture disk, Pioneer shall conduct instrument monitoring as specified in 40 C.F.R. § 63.1023(b) no later than five calendar days after the pressure relief device returns to organic HAP gas or vapor service following a pressure release to verify that the pressure relief device is operating with an instrument reading of less than 500 ppm.

(ii) If the pressure relief device includes a rupture disk, Pioneer shall either comply with the requirements in the paragraph above (and not replace the rupture disk) or install a replacement disk as soon as practicable after a pressure release but no later than five calendar days after the pressure release.

(iii) If the pressure relief device consists only of a rupture disk, Pioneer shall install a replacement disk as soon as practicable after a pressure release but no later than five calendar days after the pressure release. Pioneer shall not initiate startup of the equipment served by the rupture disk until the rupture disc is replaced.

[40 C.F.R. § 63.2480(e)(2)]

c. Pioneer shall comply with the following requirements for all pressure relief devices in organic HAP service instead of the pressure relief device requirements in 40 C.F.R. Subpart UU, § 63.1030. [40 C.F.R. § 63.2480(e)]

Pressure relief devices where all releases and potential leaks from a pressure relieve device are routed through a closed vent system to a control device (i.e., Boiler #5/TO or RTO #1) are exempt from these requirements. [40 C.F.R. § 63.2480(e)(4)]

The pressure relief devices listed in 40 C.F.R. § 63.2480(e)(5) are exempt from these requirements.

(1) Pioneer shall equip each affected pressure relief device with a device(s) or use a monitoring system that is capable of:

(i) Identifying the pressure release;
(ii) Recording the time and duration of the pressure release; and
(iii) Notifying operators immediately that a pressure release is occurring. The device or monitoring system must be either specific to the pressure relief device itself or must be associated with the process system or piping, sufficient to indicate a pressure release to the atmosphere. Examples of these types of devices and systems include, but are not limited to, a rupture disk indicator, magnetic sensor, motion detector on the pressure relief valve stem, flow monitor, or pressure monitor.

[40 C.F.R. § 63.2480(e)(3)(i)]

(2) Pioneer shall apply at least three redundant prevention measures to each affected pressure relief device and document these measures. [40 C.F.R. § 63.2480(e)(3)(ii)]

(i) If any affected pressure relief device releases to atmosphere as a result of a pressure release event, Pioneer shall perform root cause analysis and corrective action analysis and implement corrective actions according to the requirements described in paragraphs (d) and (e) below. Pioneer shall also calculate the quantity of organic HAP released during each pressure release event and report this quantity as required in the compliance report. Calculations may be based on data from the pressure relief device monitoring alone or in combination with process parameter monitoring data and process knowledge. [40 C.F.R. § 63.2480(e)(3)(iii)]

(ii) Pioneer shall determine the total number of release events that occurred during the calendar year for each affected pressure relief device separately. [40 C.F.R. § 63.2480(e)(3)(iv)]

(3) Except for the exemptions mentioned previously, the following release events from an affected pressure relief device are a deviation of the pressure release management work practice standards:

(i) Any release event for which the root cause of the event was determined to be operator error or poor maintenance;
(ii) A second release event from a single pressure relief device in a three-calendar-year period for the same root cause for the same equipment;
(iii) A third release event from a single pressure relief device in a three-calendar-year period for any reason.
[40 C.F.R. § 63.2480(e)(3)(v)]

d. Root Cause Analysis and Corrective Action Analysis

A root cause analysis and corrective action analysis must be completed as soon as possible but no later than 45 days after a release event. Following are special circumstances affecting the number of root cause analyses and/or corrective action analyses.

(1) Pioneer may conduct a single root cause analysis and corrective action analysis for a single emergency event that causes two or more pressure relief devices installed on the same equipment to release.

(2) Except as provided in the paragraph above, if more than one pressure relief device has a release during the same time period, an initial root cause analysis must be conducted separately for each pressure relief device that had a release. If the initial root cause analysis indicates that the release events have the same root cause(s), the initially separate root cause analyses may be recorded as a single root cause analysis and a single corrective action analysis may be conducted.

[40 C.F.R. § 63.2480(e)(6)]

e. Corrective Action Implementation

Pioneer shall implement the corrective action(s) identified in the corrective action analysis in accordance with the following requirements.

(1) All corrective action(s) must be implemented within 45 days of the event for which the root cause and corrective action analyses were required or as soon thereafter as practicable. If Pioneer concludes that no corrective action should be implemented, Pioneer shall record and explain the basis for that conclusion no later than 45 days following the event.

(2) For corrective actions that cannot be fully implemented within 45 days following the event for which the root cause and corrective action analyses were required, Pioneer shall develop an implementation schedule to complete the corrective action(s) as soon as practicable.

(3) No later than 45 days following the event for which a root cause and corrective action analyses were required, Pioneer shall record the corrective action(s) completed to date, and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates.

[40 C.F.R. § 63.2480(e)(7)]

f. Pioneer shall not install a flowing pilot-operated pressure relief device or replace any pressure relief device with a flowing pilot-operated pressure relief device. A flowing pilot-operated pressure relief device means the type of pilot-operated pressure relief device where the pilot discharge vent continuously releases emissions to the atmosphere when the pressure relief device is actuated. [40 C.F.R. § 63.2480(e)(8)]

4. General Requirements

a. Pioneer shall comply with the applicable emission limitations, operating limits, and work practice standards in Subpart FFFF at all times when the equipment identified as part of the affected source is in operation. [40 C.F.R. § 63.2450(a)]

b. Pioneer shall meet the requirements of 40 C.F.R. Part 63, Subpart SS, § 63.982(c) as amended by § 63.2450(e)(4). [40 C.F.R. § 63.2450(e)(1)] These requirements are included in the section of this license describing the requirements of Subpart SS.

c. The use of a bypass line at any time on a closed vent system (for Reactors K4 – K8) to divert emissions to the atmosphere or to a control device not meeting the emission limits is a deviation of the emissions standard, and Pioneer must meet the following requirements:

(1) Pioneer shall comply with the standards, recordkeeping, and reporting requirements for 40 C.F.R. Part 63, Subpart SS described earlier in this license.

(2) For each flow event from a bypass line on the closed vent system for Reactors K4 – K8, Pioneer shall maintain records sufficient to determine whether or not the detected flow included flow requiring control. For each flow event from a bypass line requiring control that is released either directly to the atmosphere or to a control device not meeting the emission limits, Pioneer shall include an estimate of the volume of gas, the concentration of organic HAP in the gas, and the resulting emissions of organic HAP that bypassed the control

device using process knowledge and engineering estimates. [40 C.F.R. § 63.2525(n)]

(3) The compliance report required by Subpart FFFF shall include the start date, start time, duration in hours, estimate of the volume of gas in standard cubic feet, the concentration of organic HAP in the gas in parts per million by volume and the resulting mass emissions of organic HAP in pounds that bypass a control device. For periods when the flow indicator is not operating, report the start date, start time, and duration in hours. [40 C.F.R. § 63.2520(e)(12)]

[40 C.F.R. § 63.2450(e)(6)]

d. Pioneer shall maintain records of the manufacturer's written specifications or other written procedures for the temperature monitoring devices on RTO #1 and Boiler #5/TO that include a schedule for calibrations, preventative maintenance procedures, a schedule for preventative maintenance, and corrective actions to be taken if a calibration fails. If a calibration fails, the temperature monitoring device is considered to be inoperative until corrective action is taken and the system passes calibration. Pioneer shall record the nature and cause of instances with the temperature monitoring devices are inoperative and the corrective action taken. [40 C.F.R. § 63.2450(k)(7)]

e. Pioneer shall at all times operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether a source is operating in compliance with operation and maintenance requirements will be based on information available to the Department and EPA which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 C.F.R. § 63.2450(u)]

f. Pioneer may designate a process vent as a maintenance vent if the vent is only used as a result of startup, shutdown, maintenance, or inspection of equipment where equipment is emptied, depressurized, degassed, or placed into service. Pioneer shall comply with the following requirements for each maintenance vent. Any vent designated as a maintenance vent is only subject to these maintenance vent provisions and the associated recordkeeping and reporting requirements in 40 C.F.R. §§ 63.2525(p) and 63.2520(e)(14), respectively.

(1) Prior to venting to the atmosphere, Pioneer shall remove process liquids from the equipment as much as practical and depressurize the equipment to RTO #1

or Boiler #5/TO until one of the conditions in 40 C.F.R. §§ 63.2450(v)(1)(i) – (iv) is met.

(2) Except for maintenance vents that serve equipment that contains less than 50 pounds of VOC, Pioneer shall determine the concentration of the vapor or, if applicable, equipment pressure using process instrumentation or portable measurement devices and follow procedures for calibration and maintenance according to manufacturer's specifications. Pioneer shall determine the mass of VOC in the equipment served by the maintenance vent based on the equipment size and contents after considering any contents drained or purged from the equipment. Equipment size may be determined from equipment design specifications. Equipment contents may be determined using process knowledge.

[40 C.F.R. § 63.2450(v)]

5. Recordkeeping Requirements

a. In addition to those already cited, Pioneer shall keep the following records:

(1) The records required by the subparts referenced by Subpart FFFF, e.g., Subparts SS and UU; [40 C.F.R. § 63.2525(a)]

(2) For each operating scenario, the records specified in 40 C.F.R. § 63.2525(b);

(3) A schedule or log of operating scenarios for Reactors K4 – K8 updated each time a different operating scenario is put into effect; [40 C.F.R. § 63.2525(c)]

(4) The results of each CPMS calibration check and maintenance performed; [40 C.F.R. § 63.2525(f)]

(5) For each deviation from an emission limit, operating limit, or work practice standard, a record of the following information:

(i) In the event that an affected unit does not meet an applicable standard, record the number of deviations. Record the date, time, and duration of each deviation.
(ii) For each deviation from an applicable standard, record and retain a list of the affected sources or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit and a description of the method used to estimate the emissions.

(iii)Record actions taken to minimize emissions and any corrective actions taken to return the affected unit to its normal or usual manner of operation.

[40 C.F.R. § 63.2525(l)]

(6) For each maintenance vent opening, the records listed in 40 C.F.R. § 63.2525(p);

(7) For each pressure relief device subject to the pressure relief management work practice standards, the records listed in 40 C.F.R. § 63.2525(q).

b. Records may be maintained in electronic format. However, this ability to maintain electronic copies does not affect the requirement for Pioneer to make records, data, and reports available upon request to the Department or the EPA as part of an on-site compliance evaluation. [40 C.F.R. § 63.2525(t)]

6. Reporting Requirements

a. Pioneer shall submit semi-annual compliance reports pursuant to the requirements of 40 C.F.R. § 63.2520(e). These reports shall be submitted electronically to the EPA via their electronic reporting tool CEDRI. [40 C.F.R. § 63.2520(a) and Table 11, Row 3]

b. Within 60 days after the date of completing each performance test, Pioneer shall submit the results of any performance test electronically to the EPA via their electronic reporting tool CEDRI. [40 C.F.R. § 63.2520(f)]

Note: Pursuant to Standard Condition (8)(D), Pioneer is also required to submit a copy of the performance test report to the Department within 30 days of completing each performance test.

E. 40 C.F.R. Part 63, Subpart UU

Pioneer is subject to applicable requirements in *National Emission Standards for Equipment Leaks – Control Level 2 Standards*, 40 C.F.R. Part 63, Subpart UU (Subpart UU). This regulation is used to demonstrate compliance with requirements contained in 40 C.F.R. Part 63, Subpart OOO, Subpart EEEE, and Subpart FFFF as addressed elsewhere in this license.

1. Applicability

Pursuant to 40 C.F.R. Part 63, Subpart OOO, § 1410, Pioneer shall comply with Subpart UU, except for § 63.1030, for the affected equipment that is part of the APPU (Reactors K1 and K2).

Pursuant to 40 C.F.R. Part 63, Subpart EEEE, § 63.2346(c), Pioneer shall comply with Subpart UU for each pump, valve, and sampling connection that operates in organic liquids service for at least 300 hours per year at an OLD operation. This includes equipment associated with Reactor K3.

Pursuant to 40 C.F.R. Part 63, Subpart FFFF, § 63.2480(a) and Table 6, Row 1, Pioneer shall comply with Subpart UU, except as specified in 40 C.F.R. §§ 63.2480(b), for equipment that is in organic HAP service and is part of any MCPU (Reactors K4 – K8).

Equipment that is in organic HAP service less than 300 hours per calendar year is excluded from the requirements of 40 C.F.R. §§ 63.1025, 63.1026, 63.1034, and 63.1036 if it is identified as required in § 63.1022(b)(5). [40 C.F.R. § 63.1019(d)]

Equipment in "light liquid service" means a piece of equipment that contains an organic compounds with a vapor pressure greater than 0.3 kilopascals at 20 ºC. This includes equipment associated with Reactor K3 and the methanol tank (Tank #29). Any other equipment in regulated material service is considered to be in "heavy liquid service."

Lines and equipment not containing organic HAP are not subject to the provisions of Subpart UU. Utilities, and other non-process lines, such as heating and cooling systems that do not combine their materials with those in the processes they serve, are not considered to be part of a process unit or affected facility. [40 C.F.R. § 63.1019(e)]

2. Equipment Identification

   a. Equipment subject to Subpart UU shall be identified. Identification of the equipment does not require physical tagging of the equipment. For example, the equipment may be identified on a plant site plan, in log entries, by designation of process unit or affected facility boundaries by some form of weatherproof identification, or by other appropriate methods. [40 C.F.R. § 63.1022(a)]

   b. In addition to the general identification requirements in the paragraph above, equipment subject to any of the provisions of 40 C.F.R. §§ 63.1023 through 63.1034 shall be specifically identified as described below.

      (1) Except for inaccessible, ceramic, or ceramic-lined connectors as described in 40 C.F.R. § 63.1027(e)(2) and instrumentation systems identified as described below, identify the connectors subject to the requirements of this subpart. Connectors need not be individually identified if all connectors in a designated area or length of pipe subject to the provisions of this subpart are identified as a group, and the number of connectors subject is indicated.

(2) Identify the equipment that is equipped with a closed vent system and control device under the provisions of § 63.1026(e)(3) (pumps in light liquid service), § 63.1028(e)(3) (agitators), § 63.1030(d) (pressure relief devices in gas and vapor service), § 63.1031(e) (compressors), or § 63.1037(a) (alternative for enclosed-vented process units).

(3) Identify the pressure relief devices equipped with rupture disks.

(4) Identify instrumentation systems subject to the provisions of 40 C.F.R. § 63.1029. Individual components in an instrumentation system need not be identified.

(5) Identify, either by list, location (area or group), or other method, of equipment in organic HAP service less than 300 hours per calendar year within a process unit or affected facilities subject to the provisions of Subpart UU.

[40 C.F.R. § 63.1022(b)]

c. Unsafe-to-Monitor

Valves meeting the provisions of § 63.1025(e)(1), pumps meeting the provisions of § 63.1026(e)(6), connectors meeting the provisions of § 63.1027(e)(1), and agitators meeting the provisions of § 63.1028(e)(7) may be designated unsafe-to-monitor if Pioneer determines that monitoring personnel would be exposed to an immediate danger as a consequence of complying with the monitoring requirements of this subpart. Examples of unsafe-to-monitor equipment include, but is not limited to, equipment under extreme pressure or heat. [40 C.F.R. § 63.1022(c)(1)]

d. Difficult-to-Monitor

Valves and agitators may be designated as difficult-to-monitor if Pioneer determines that the valve or agitator cannot be monitored without elevating the monitoring personnel more than 2 meters (7 feet) above a support surface or it is not accessible in a safe manner when it is in organic HAP service. [40 C.F.R. § 63.1022(c)(2)]

e. Pioneer shall record the identity of equipment designated as unsafe-to-monitor and the planned schedule for monitoring this equipment. Pioneer shall record the identity of equipment designated as difficult-to-monitor, the planned schedule for monitoring this equipment, and an explanation why the equipment is unsafe or difficult-to-monitor. This record must be kept at the plant and be available for review by an inspector. [40 C.F.R. § 63.1022(c)(3)]

f. Pioneer shall have a written plan that requires monitoring of the unsafe-to-monitor equipment as frequently as practical during safe-to-monitor times, but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in 40 C.F.R. § 63.1024 if a leak is detected. [40 C.F.R. § 63.1022(c)(4)(i)]

g. Pioneer shall have a written plan that requires monitoring of the difficult-to-monitor equipment at least once per calendar year and repair of the equipment according to the procedures in 40 C.F.R. § 63.1024 if a leak is detected. [40 C.F.R. § 63.1022(c)(4)(ii)]

h. Unsafe-to-Repair

Connectors may be designated unsafe-to-repair if Pioneer determines that repair personnel would be exposed to immediate danger as a consequence of complying with the repair requirements of this subpart, and if the connector will be repaired before the end of the next process unit or affected facility shutdown. [40 C.F.R. § 63.1022(d)(1)]

i. The identity of connectors designated as unsafe-to-repair and an explanation why the connector is unsafe-to-repair shall be recorded. [40 C.F.R. § 63.1022(d)(2)]

3. Monitoring Methods

a. Instrument monitoring shall comply with Method 21 of 40 C.F.R. Part 60, Appendix A, (EPA Method 21) as specified in 40 C.F.R. § 63.1023(b).

b. Pioneer may elect to adjust or not to adjust the instrument readings for background. If Pioneer elects not to adjust instrument readings for background, Pioneer shall monitor the equipment according to the procedures specified in 40 C.F.R. §§ 63.1023(b)(1) through (5). In such cases, all instrument readings shall be compared directly to the applicable leak definition for the monitored equipment to determine whether there is a leak. If Pioneer elects to adjust instrument readings for background, Pioneer shall monitor the equipment according to the procedures specified in 40 C.F.R. §§ 63.1023(c)(1) through (4). [40 C.F.R. § 63.1023(c)]

c. Sensory monitoring consists of visual, audible, olfactory, or any other detection method used to determine a potential leak to the atmosphere. [40 C.F.R. § 63.1023(d)]

4. Leak Repair

a. Pioneer shall repair each leak detected as soon as practical, but not later than 15 calendar days after it is detected, except as described below under “Delay of

Repair" and "Unsafe-to-Repair." A first attempt at repair shall be made no later than five calendar days after the leak is detected. First attempt at repair for pumps includes, but is not limited to, tightening the packing gland nuts and/or ensuring that the seal flush is operating at design pressure and temperature. First attempt at repair for valves includes, but is not limited to, tightening the bonnet bolts, and/or replacing the bonnet bolts, and/or tightening the packing gland nuts, and/or injecting lubricant into the lubricated packing. [40 C.F.R. § 63.1024(a)]

b. When each leak is detected, a weatherproof and readily visible identification shall be attached to the leaking equipment. [40 C.F.R. § 63.1022(e)(1)]

c. The leak identification on a valve in gas/vapor or light liquid service may be removed after it has been monitored as specified in 40 C.F.R. § 63.1025(d)(2), and no leak has been detected during that monitoring. The leak identification on a connector in gas/vapor or light liquid service may be removed after it has been monitored as specified in 40 C.F.R. § 63.1027(b)(3)(iv) and no leak has been detected during that monitoring. [40 C.F.R. § 63.1024(c)(1)]

d. The leak identification on equipment other than a valve or connector in gas/vapor or light liquid service that is subject to the provisions of 40 C.F.R. § 63.1027(b)(3)(iv), may be removed after it is repaired. [40 C.F.R. § 63.1024(c)(2)]

e. Delay of Repair

Delay of repair is allowed for any of the conditions specified below. Pioneer shall maintain a record of the facts that explain any delay of repairs and, where appropriate, why the repair was technically infeasible without a process unit shutdown.

(1) Delay of repair of equipment for which leaks have been detected is allowed if repair within 15 days after a leak is detected is technically infeasible without a process unit or affected facility shutdown. Repair of this equipment shall occur as soon as practical, but no later than the end of the next process unit or affected facility shutdown, except as provided in paragraph (5) below.

(2) Delay of repair of equipment for which leaks have been detected is allowed for equipment that is isolated from the process and that does not remain in regulated material service.

(3) Delay of repair for valves, connectors, and agitators is allowed if the following provisions are met:

(i) Pioneer determines that emissions of purged material resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair, and
(ii) When repair procedures are affected, the purged material is collected and destroyed or collected and routed to a process.

(4) Delay of repair for pumps is allowed if the requirements of 40 C.F.R. §§ 63.1024(d)(i) and (ii) are met.

(5) Delay of repair beyond a process unit or affected facility shutdown will be allowed for a valve if valve assembly replacement is necessary during the process unit or affected facility shutdown, and valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the second process unit or affected facility shutdown will not be allowed unless the third process unit or affected facility shutdown occurs sooner than six months after the first process unit or affected facility shutdown.

[40 C.F.R. § 63.1024(d)]

f. Unsafe-to-Repair

Any connector that is designated as unsafe-to-repair is exempt from the leak repair requirements of 40 C.F.R. § 63.1027(d), and paragraph (a) of this section.

5. Valves

Pioneer shall comply with the following requirements for valves in gas and vapor service and in light liquid service.

a. Pioneer shall monitor valves using EPA Method 21. A leak is defined as an instrument reading of 500 ppm or greater. [40 C.F.R. §§ 63.1025(b)(1) and (2)]

b. Pioneer shall monitor each valve once each quarter[4], except as provided below:

(1) At process units with less than 1% leaking valves, Pioneer may elect to monitor each valve once every two quarters.

[4] Because Pioneer has less than 250 valves in organic HAP service, it is not required to monitor valves on a monthly basis pursuant to 40 C.F.R. § 63.1025(e)(3).

(2) At process units with less than 0.5% leaking valves, Pioneer may elect to monitor each valve once every four quarters.

(3) At process units with less than 0.25% leaking valves, Pioneer may elect to monitor each valve once every two years.

[40 C.F.R. § 63.1025(b)(3)]

d. Pioneer shall keep a record of the monitoring schedule for each process unit. [40 C.F.R. § 63.1025(b)(3)(vi)]

e. If a leak is discovered, Pioneer shall repair the leak using the procedures for leak repair outlined above. [40 C.F.R. § 63.1025(d)(1)]

f. After a leak has been repaired, the valve shall be monitored at least once within the first three months after its repair in accordance with 40 C.F.R. § 63.1025(d)(2).

g. Exemptions

(1) Any valve that is vented to a closed vent system that is sent to a control device (i.e., Boiler #5/TO or RTO #1) is exempt from the monitoring requirements above. [40 C.F.R. §§ 63.1025(b) and 63.1037(a)]

(2) Any valve that is designated as unsafe-to-monitor is exempt from the monitoring requirements above. Pioneer shall monitor the valve according to the written plan specified in 40 C.F.R. § 63.1022(c)(4). [40 C.F.R. § 63.1025(e)(1)]

(3) Any valve that is designated as difficult-to-monitor is exempt from the monitoring requirements above except for the requirement to re-monitor within the first three months after its repair in accordance with 40 C.F.R. § 63.1025(d)(2). Pioneer shall monitor the valve according to the written plan specified in 40 C.F.R. § 63.1022(c)(4). [40 C.F.R. § 63.1025(e)(2)]

6. Pumps in Light Liquid Service

Pioneer shall comply with the following requirements for pumps in light liquid service.

a. Pioneer shall monitor each pump using EPA Method 21. A leak is defined as an instrument reading of 5,000 ppm or greater for pumps handling polymerizing monomers and 1,000 ppm for all other pumps. [40 C.F.R. §§ 63.1026(b)(1) and (2)]

b. For pumps to which a 1,000 ppm leak definition applies, repair is not required unless an instrument reading of 2,000 ppm or greater is detected. [40 C.F.R. § 63.1026(b)(3)]

c. If a leak is discovered, Pioneer shall repair the leak using the procedures for leak repair outlined above unless otherwise specified above or as specified for leaks identified by visual indication of liquids dripping as described below. [40 C.F.R. § 63.1026(d)]

d. Pioneer shall check each pump by visual inspection each calendar week for indications of liquids dripping form the pump seal. Pioneer shall document that the inspection was conducted and the date of the inspection. If there are indications of liquids dripping from the pump seal at the time of the weekly inspection, Pioneer shall either:

(1) Monitor the pump using EPA Method 21. If the instrument reading indicates a leak, Pioneer shall repair the leak using the procedures for leak repair outlined above.

or

(2) Pioneer shall eliminate the visual indications of liquids dripping from the pump seal.

[40 C.F.R. § 63.1026(b)(4)]

e. If, when calculated on a six-month rolling average basis, at least the greater of 10% of the pumps in a process unit or three pumps in a process unit leak, Pioneer shall implement a Quality Improvement Program for pumps that complies with the requirements of 40 C.F.R. § 63.1035. [40 C.F.R. § 63.1026(c)(1)]

f. Any pump that is designated as unsafe-to-monitor is exempt from the monitoring requirements above. Pioneer shall monitor the pump according to the written plan specified in 40 C.F.R. § 63.1022(c)(4). [40 C.F.R. § 63.1026(e)(6)]

7. Connectors

For equipment subject to Subpart UU through Subpart EEEE (Reactor K3 and storage tanks), Pioneer is only subject to the requirements in Subpart UU for pumps, valves, and sampling connections (which are described in paragraph 12 below) pursuant to 40 C.F.R. § 63.2346(c). Subpart EEEE does not require Subpart UU standards for other types of connectors. Therefore, there are no applicable requirements in 40 C.F.R. § 63.1027 for connectors associated with Reactor K3 or the storage tanks.

For equipment subject to Subpart UU through Subpart FFFF (Reactors K4 – K8), Pioneer has elected to comply with the requirements for connectors in heavy liquid

service rather than the requirements of 40 C.F.R. § 63.1027. [40 C.F.R. § 63.2480(b)(4)] Therefore, there are no applicable requirements in 40 C.F.R. § 63.1027 for connectors associated with Reactors K4 – K8.

The following requirements apply to connectors in gas and vapor service and in light liquid service for equipment subject to Subpart UU through Subpart OOO (Reactors K1 and K2). [40 C.F.R. §§ 63.1027(b)]

a. Pioneer shall monitor connectors using EPA Method 21. A leak is defined as an instrument reading of 500 ppm or greater. [40 C.F.R. §§ 63.1027(b)(1) and (2)]

b. Pioneer shall monitor each connector on the following schedule based on the monitoring results from the preceding monitoring period:

(1) If the percentage of leaking connectors in the process unit was greater than or equal to 0.5%, Pioneer shall monitor within 12 months (1 year).

(2) If the percentage of leaking connectors in the process unit was greater than or equal to 0.25% but less than 0.5%, Pioneer shall monitor within 4 years. Pioneer may comply with the requirements of this paragraph by monitoring at least 40% of the connectors within 2 years of the start of the monitoring period, provided all connectors have been monitored by the end of the 4 year monitoring period.

(3) If the percentage of leaking connectors in the process unit was less than 0.25%, Pioneer shall monitor at least 50% of the connectors within 4 years of the start of the monitoring period and either of the following (as applicable):

(i) If the percentage of leaking connectors calculated from the monitoring results in the first 4 years is greater than or equal to 0.35% of the monitored connectors, Pioneer shall monitor as soon as practical, but within the next 6 months, all connectors that have not yet been monitored during the monitoring period. At the conclusion of monitoring, a new monitoring period shall be started based on the percentage of leaking connectors of the total monitored connectors.

(ii) If the percentage of leaking connectors calculated from the monitoring results in the first 4 years is less than 0.35% of the monitored connectors, Pioneer shall monitor all connectors that have not yet been monitored within 8 years of the start of the monitoring period.

[40 C.F.R. § 63.1027(b)(3)]

c. If, during the monitoring conducted pursuant to the paragraph above, a connector is found to be leaking, it shall be re-monitored once within 90 days after repair to confirm that it is not leaking. [40 C.F.R. § 63.1027(b)(3)(iv)]

d. Pioneer shall keep a record of the start date and end date of each monitoring period for each process unit. [40 C.F.R. § 63.1027(b)(3)(v)]

e. If a leak is discovered, Pioneer shall repair the leak using the procedures for leak repair outlined above. [40 C.F.R. § 63.1027(d)]

f. Exemptions

(1) Any connector that is vented to a closed vent system that is sent to a control device (i.e., Boiler #5/TO or RTO #1) is exempt from the monitoring requirements above. [40 C.F.R. § 63.1037(a)]

(2) Any connector that is designated as unsafe-to-monitor is exempt from the monitoring requirements above. Pioneer shall monitor the connector according to the written plan specified in 40 C.F.R. § 63.1022(c)(4). [40 C.F.R. § 63.1027(e)(1)]

(3) Any connector that is inaccessible or that is ceramic or ceramic-lined is exempt from the monitoring requirements, the leak repair requirements, and the recordkeeping and reporting requirements. An inaccessible connector is one that is any of the following:

(i) Buried;
(ii) Insulated in a manner that prevents access to the connector by a monitor probe;
(iii) Obstructed by equipment or piping that prevents access to the connector by a monitor probe;
(iv) Unable to be reached from a wheeled scissor-lift or hydraulic-type scaffold that would allow access to connectors up to 7.6 meters (25 feet) above the ground;
(v) Inaccessible because it would require elevating the monitoring personnel more than 2 meters (7 feet) above a permanent support surface or would require the erection of scaffold; or
(vi) Not able to be accessed at any time in a safe manner to perform monitoring. Unsafe access includes, but is not limited to, the use of a wheeled scissor-lift on unstable or uneven terrain, the use of a motorized man-lift basket in areas where an ignition potential exists, or access would require near proximity to hazards such as electrical lines or would risk damage to equipment.

[40 C.F.R. § 63.1027(e)(2)(i)]

g. If any inaccessible, ceramic or ceramic-lined connector is observed by visual, audible, olfactory, or other means to be leaking, the visual, audible, olfactory, or other indications of a leak to the atmosphere shall be eliminated as soon as practical. [40 C.F.R. § 63.1027(e)(2)(ii)]

8. Agitators

For equipment subject to Subpart UU through Subpart EEEE (Reactor K3 and storage tanks), Pioneer is only subject to the requirements in Subpart UU for pumps, valves, and sampling connections pursuant to 40 C.F.R. § 63.2346(c). Subpart EEEE does not require Subpart UU standards for agitators. Therefore, there are no applicable requirements in 40 C.F.R. § 63.1028 for agitators associated with Reactor K3 and the storage tanks.

The following requirements apply to agitators in gas and vapor service and in light liquid service for equipment subject to Subpart UU through Subpart OOO (Reactors K1 and K2) or Subpart FFFF (Reactors K4 – K8). [40 C.F.R. §§ 63.1028(c)(1)]

a. Pioneer shall monitor agitators using EPA Method 21. A leak is defined as an instrument reading of 10,000 ppm or greater. [40 C.F.R. §§ 63.1028(c)(1) and (2)]

b. If a leak is discovered using EPA Method 21 monitoring, Pioneer shall repair the leak using the procedures for leak repair outlined above. [40 C.F.R. § 63.1028(d)]

c. Each agitator seal shall be checked by visual inspection each calendar week for indications of liquids dripping from the agitator seal. Pioneer shall document that the inspection was conducted and the date of the inspection. [40 C.F.R. § 63.1028(c)(3)(i)]

d. If the visual inspection indicates there are liquids dripping from the agitator seal, Pioneer shall do one of the following prior to the next required inspection:

(1) Pioneer shall monitor the agitator seal using EPA Method 21 to determine if there is a leak of regulated material. If an instrument reading of 10,000 ppm or greater is measured, a leak is detected, and Pioneer shall repair the leak using the procedures for leak repair outlined above.
Or
(2) Pioneer shall eliminate the indications of liquids dripping from the agitator seal.

[40 C.F.R. § 63.1028(c)(3)(ii)]

e. Exemptions

(1) Each agitator that is vented to a closed vent system that is sent to a control device (i.e., Boiler #5/TO or RTO #1) is exempt from the monitoring requirements above. [40 C.F.R. §§ 63.1028(c)(1), 63.1028(e)(3) and 63.1037(a)]

(2) Each agitator equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the monitoring requirements above provided the requirements specified in 40 C.F.R. §§ 63.1028(e)(1)(i) through (iv) are met. [40 C.F.R. § 63.1028(e)(1)] The phrase "(except during periods of startup, shutdown, or malfunction)" is redacted from § 63.1028(e)(1)(i)(A) pursuant to 40 C.F.R. § 63.2480(f)(7).

(3) Any agitator that is designed with no externally actuated shaft penetrating the agitator housing is exempt from the monitoring requirements above. [40 C.F.R. § 63.1028(e)(2)]

(4) Any agitator seal that is designated as a difficult-to-monitor agitator seal is exempt from the monitoring requirements above, and Pioneer shall monitor the agitator seal according to the written plan specified in 40 C.F.R. § 63.1022(c)(4). [40 C.F.R. § 63.1028(e)(5)]

(5) Any agitator seal that is obstructed by equipment or piping that prevents access to the agitator by a monitor probe is exempt from the monitoring requirements above. [40 C.F.R. § 63.1028(e)(6)]

(6) Any agitator seal that is designated as an unsafe-to-monitor agitator seal is exempt from the monitoring requirements above, and Pioneer shall monitor the agitator seal according to the written plan specified in 40 C.F.R. § 63.1022(c)(4). [40 C.F.R. § 63.01028(e)(7)]

9. Heavy Liquid Service, Pressure Relief Devices in Liquid Service, and Instruments

Pioneer shall comply with the following requirements for pumps, valves, connectors, and agitators in heavy liquid service, pressure relief devices in liquid service, and instrumentation systems. [40 C.F.R. § 63.1029(b)(1)]

a. If evidence of a potential leak to the atmosphere is found by visual, audible, olfactory, or any other detection method, Pioneer shall monitor the item using EPA Method 21 within five calendar days, unless the potential leak is repaired. Repaired shall mean that the visual, audible, olfactory, or other indications of a leak to the atmosphere have been eliminated; that no bubbles are observed at potential leak

sites during a leak check using soap solution; or that the system will hold a test pressure.

A leak is defined as an instrument reading of 10,000 ppm or greater for agitators, 5,000 ppm or greater for pumps handling polymerizing monomers, or 2,000 ppm or greater for all other pumps, or 500 ppm or greater for valves, connectors, instrumentation systems, and pressure relief devices.

[40 C.F.R. §§ 63.1029(b) and (c)]

b. If a leak is discovered using EPA Method 21 monitoring, Pioneer shall repair the leak using the procedures for leak repair outlined above. [40 C.F.R. § 63.1029(b)(2)]

c. Exemptions

Each unit subject to this section that is vented to a closed vent system that is sent to a control device (i.e., Boiler #5/TO or RTO #1) is exempt from the monitoring requirements above. [40 C.F.R. §§ 63.1029(b)(1) and 63.1037(a)]

10. Pressure Relief Devices in Gas and Vapor Service

For equipment subject to Subpart UU through Subpart OOO (Reactors K1 and K2), pressure relief devices in gas and vapor service are specifically exempt from the requirements in 40 C.F.R. § 63.1030 for pressure relief devices in gas and vapor service pursuant to 40 C.F.R. § 63.1410.

For equipment subject to Subpart UU through Subpart EEEE (Reactor K3 and storage tanks), Pioneer is only subject to the requirements in Subpart UU for pumps, valves, and sampling connections pursuant to 40 C.F.R. § 63.2346(c). Subpart EEEE does not require Subpart UU standards for pressure relief devices.

For equipment subject to Subpart UU through Subpart FFFF (Reactors K4 – K8), Pioneer is subject to requirements in 40 C.F.R. § 63.02480(e) in lieu of the requirements in 40 C.F.R. § 63.1030 for pressure relief devices in gas and vapor service.

Therefore, there are no applicable requirements in 40 C.F.R. § 63.1030.

11. Compressors

For equipment subject to Subpart UU through Subpart EEEE (Reactor K3 and storage tanks), Pioneer is only subject to the requirements in Subpart UU for pumps, valves,

and sampling connections pursuant to 40 C.F.R. § 63.02346(c). Subpart EEEE does not require Subpart UU standards for compressors.

Pioneer operates no compressors with equipment subject to Subpart UU through Subpart OOO or Subpart FFFF.

Therefore, there are no applicable requirements in 40 C.F.R. § 63.1031.

12. Sampling Connections

Pioneer shall comply with the following requirements for sampling connection systems.

a. Each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed vent system, except as follows:

(1) Each unit subject to this section that is vented to a closed vent system that is sent to a control device (i.e., Boiler #5/TO or RTO #1) is exempt from these requirements. [40 C.F.R. §§ 63.1032(b) and 63.1037(a)]

(2) In-situ sampling systems and sampling systems without purges are exempt from these requirements. [40 C.F.R. § 63.1032(d)]

[40 C.F.R. § 63.1032(b)]

b. Each closed-purge, closed-loop, or closed vent system shall meet the following applicable requirements:

(1) The system shall return the purged process fluid directly to a process line that is part of a closed vent system that is sent to a control device (i.e., Boiler #5/TO or RTO #1); or

(2) The system is designed and operated to capture and transport all the purged process fluid to a closed vent system that is sent to a control device (i.e., Boiler #5/TO or RTO #1); or

(3) Pioneer shall collect, store, and transport the purged process fluid to a waste management or treatment system as described in 40 C.F.R. § 63.01032(c)(4).

[40 C.F.R. § 63.1032(c)]

c. Containers that are part of a closed purge system shall be covered or closed when not being filled or emptied. [40 C.F.R. § 63.1032(c)(5)]

13. Open-Ended Valves or Lines

Pioneer shall comply with the following requirements for open-ended valves or lines.

a. Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as follows:

(1) Each unit subject to this section that is vented to a closed vent system that is sent to a control device (i.e., Boiler #5/TO or RTO #1) is exempt from these requirements. [40 C.F.R. §§ 63.1033(b)(1) and 63.1037(a)]

(2) Open-ended valves or lines in an emergency shutdown system that are designed to open automatically in the event of a process upset are exempt from these requirements. [40 C.F.R. § 63.1033(c)]

(3) Open-ended valves or lines containing materials that would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system are exempt from these requirements. [40 C.F.R. § 63.1033(d)]

b. The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line, or during maintenance. [40 C.F.R. § 63.1033(b)(1)]

c. Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed. [40 C.F.R. § 63.1033(b)(2)]

d. When a double block and bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with the requirement to seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line, or during maintenance. [40 C.F.R. § 63.1033(b)(3)]

14. Closed Vent Systems and Control Devices

Pioneer complies with the requirements for closed vent systems and control devices by complying with Subpart SS pursuant to 40 C.F.R. § 63.1034(b)(1)]

15. Recordkeeping Requirements

Pioneer shall maintain the records required by 40 C.F.R. § 63.1038 including, but not limited to, the following:

a. Pioneer shall keep general and specific equipment identification if the equipment is not physically tagged and Pioneer is electing to identify the equipment subject to this subpart through written documentation such as a log or other designation. [40 C.F.R. § 63.01038(b)(1)]

b. Pioneer shall keep a written plan as specified in § 63.1022(c)(4) for any equipment that is designated as unsafe- or difficult-to-monitor. [40 C.F.R. § 63.01038(b)(2)]

c. Pioneer shall maintain a record of the identity and an explanation as specified in § 63.1022(d)(2) for any equipment that is designated as unsafe-to-repair. [40 C.F.R. § 63.1038(b)(3)]

d. As specified in § 63.1022(e), Pioneer shall maintain the identity of compressors operating with an instrument reading of less than 500 parts per million. [40 C.F.R. § 63.1038(b)(4)]

e. Pioneer shall keep records associated with the determination that equipment is in heavy liquid service. [40 C.F.R. § 63.1038(b)(5)]

f. When each leak is detected, the following information shall be recorded and kept pursuant to the referencing subpart, except for the information for connectors complying with the eight-year monitoring period allowed under 40 C.F.R. § 63.1027(b)(3)(iii) shall be kept five years beyond the date of its last use. Note: All records must be kept for a period of six years pursuant to Standard Condition (6).

(1) The date of first attempt to repair the leak;

(2) The date of successful repair of the leak;

(3) Maximum instrument reading measured by EPA Method 21 at the time the leak is successfully repaired or determined to be nonrepairable;

(4) “Repair delayed” and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak; and

(5) Dates of process unit or affected facility shutdowns that occur while the equipment is unrepaired.

[40 C.F.R. § 63.1023(e)(2) and § 63.1024(f)]

g. Pioneer may develop a written procedure that identifies the conditions that justify a delay of repair. The written procedures may be part of a separate document that is maintained at the plant site. In such cases, reasons for delay of repair may be documented by citing the relevant sections of the written procedure. [40 C.F.R. § 63.1024(f)(4)(i)]

h. If delay of repair was caused by depletion of stocked parts, there must be documentation that the spare parts were sufficiently stocked on-site before depletion and the reason for depletion. [40 C.F.R. § 63.1024(f)(4)(ii)]

i. Pioneer shall maintain the following records for valves:

(1) The monitoring schedule for each process unit; and

(2) The valve subgrouping records specified in § 63.1025(b)(4)(iv), if applicable.

[40 C.F.R. § 63.1038(c)(1)]

j. Pioneer shall maintain the following records for pumps:

(1) Documentation of pump visual inspections;

(2) Documentation of dual mechanical seal pump visual inspections; and

(3) For the criteria as to the presence and frequency of drips for dual mechanical seal pumps, records of the design criteria and explanations and any changes and the reason for the changes.

[40 C.F.R. § 63.1038(c)(2)]

k. Pioneer shall maintain records of the monitoring schedule for connectors. [40 C.F.R. § 63.1038(c)(3)]

l. Pioneer shall maintain the following records for agitators:

(1) Documentation of agitator seal visual inspections;

(2) For the criteria as to the presence and frequency of drips for agitators, records of the design criteria and explanations and any changes and the reason for the changes.

[40 C.F.R. § 63.1038(c)(4)]

m. Pioneer shall maintain records for any Quality Improvement Program in accordance with 40 C.F.R. § 63.1038(c)(7).

16. Reporting Requirements

Pioneer shall report the information specified in of 40 C.F.R. § 63.1039(b) in the periodic report specified by the referencing subpart (i.e., Subparts OOO, EEEE, or FFFF). [40 C.F.R. § 63.1039(b)]

F. 40 C.F.R. Part 63, Subpart SS

Pioneer is subject to applicable requirements in *National Emission Standards for Closed Vent Systems, Control Devices, Recovery Devices and Routing to a Fuel Gas System or a Process*, 40 C.F.R. Part 63, Subpart SS (Subpart SS). This regulation is used to demonstrate compliance with requirements contained in 40 C.F.R. Part 63, Subpart UU, Subpart OOO, Subpart EEEE, and Subpart FFFF as addressed elsewhere in this license.

1. Applicability

Pioneer controls emissions through a closed vent system to a nonflare control device and therefore is subject to applicable requirements in 40 C.F.R. § 63.983 for closed vent systems, applicable recordkeeping and reporting requirements in §§ 63.998 and 63.999.

Reactors K1 and K2 are part of an aggregate batch stream regulated by Subpart OOO. For the purposes of Subpart SS, this aggregate batch stream is a process vent subject to applicable control device requirements in 40 C.F.R. §§ 63.988, 63.990 and 63.995 and monitoring requirements in § 63.996.

Subpart OOO requires emissions vented to a control device to be vented through a closed vent system meeting the requirements of Subpart SS. Therefore, the process vent (aggregate batch stream venting Reactors K1 and K2) is subject to applicable requirements for equipment leaks in 40 C.F.R. § 63.986. Pursuant to 40 C.F.R. § 63.982(c)(3), no other provisions of Subpart SS apply equipment leak emissions.

Reactor K3 is a blending tank that is part of the affected source regulated by Subpart EEEE. For the purposes of Subpart SS, Reactor K3 is a storage vessel subject to applicable control device requirements in 40 C.F.R. § 63.985. Pursuant to 40 C.F.R. § 63.982(c)(1), no other provisions of Subpart SS apply to Reactor K3.

Reactors K4 – K8 are miscellaneous organic chemical manufacturing process units (MCPUs) addressed in Subpart FFFF. For the purposes of Subpart SS, Reactors K4 – K8 have batch process vents subject to applicable control device requirements in 40 C.F.R. § 63.982(c) except as noted in 40 C.F.R. § 63.2450(e)(4).

2. Closed Vent Systems

   a. Each closed vent system shall be designed and operated to collect the regulated material vapors from the emission point, and to route the collected vapors to a control device. [40 C.F.R. § 63.983(a)(1)]

   b. Closed vent systems shall be operated at all times when emissions are vented to, or collected by, them. [40 C.F.R. § 63.983(a)(2)]

   c. Pioneer shall comply with one of the following for each closed vent system that contains bypass lines that could divert a vent stream to the atmosphere:

      (1) Properly install at the entrance to any bypass line, maintain, and operate a flow indicator capable of taking periodic readings; or

      (2) Secure the bypass line valve in the non-diverting position with a car-seal or a lock-and-key type configuration.

      [40 C.F.R. § 63.983(a)(3) as modified by § 63.2450(e)(4)]

   d. Pioneer shall conduct annual inspections of the closed vent system in accordance with the requirements of 40 C.F.R. § 63.983(b)(1) – (3).

   e. Leaks in the closed vent system shall be repaired in accordance with the requirements of 40 C.F.R. § 63.983(d)(1) or (2), as applicable.

   f. Delay of repair of a closed vent system for which leaks have been detected is allowed if repair within 15 days after a leak is detected is technically infeasible or unsafe without a closed vent system shutdown, as defined in § 63.981, or if Pioneer determines that emissions resulting from immediate repair would be greater than the emissions likely to result from delay of repair. Repair of such equipment shall be completed as soon as practical, but not later than the end of the next closed vent system shutdown. [40 C.F.R. § 63.983(d)(3)]

   g. For each bypass line, Pioneer shall either:

      (1) If a flow indicator is used, take a reading at least once every 15 minutes; or

      (2) If the bypass line valve is secured in the non-diverting position, visually inspect the seal or closure mechanism at least once every month to verify that the valve

is maintained in the non-diverting position, and the vent stream is not diverted through the bypass line.

[40 C.F.R. § 63.983(b)(4)]

3. Control Devices and Monitoring

   a. Pioneer shall operate and maintain either Boiler #5/TO or RTO #1 to control emissions from the closed vent system such that the monitored temperature, as described below, remains above the temperature established at the most recent performance test. As of the date of this license, those temperatures are 1,413.6 ºF on a 3-hour average basis for Boiler #5/TO and above 1,517.3 ºF on a 3-hour average basis for RTO #1 based on a performance test conducted in August 2023. [40 C.F.R. § 63.985(a)]

   b. Boiler #5/TO and RTO #1 shall be operated at all times when emissions are vented to them. [40 C.F.R. §§ 63.986(a)(2) and 63.988(a)(2)]

   c. When Boiler #5/TO is being used to control emissions, the vent stream shall be introduced into the flame zone of the boiler. [40 C.F.R. § 63.988(a)(3)]

   d. When Boiler #5/TO is being used to control emissions from the aggregate batch vent stream or Reactor K3, a temperature monitoring device shall be installed in the fire box. [40 C.F.R. §§ 63.985(c)(2) and 63.988(c)(3)]

   e. When RTO #1 is being used to control emissions from the aggregate batch vent stream or Reactor K3, a temperature monitoring device shall be installed in the fire box or in the ductwork immediately downstream of the fire box in a position before any substantial heat exchange occurs. [40 C.F.R. §§ 63.985(c)(2) and 63.988(c)(1)]

   f. The temperature monitoring devices used in Boiler #5/TO and RTO #1 shall be operated and maintained pursuant to 40 C.F.R. § 63.996(c), except for § 63.996(c)(2)(ii) (following an SSM plan) pursuant to § 63.2346(l).

4. Recordkeeping Requirements

   a. Pioneer shall keep a record of the procedure used for calibrating the temperature monitoring devices in RTO #1 and Boiler #5/TO. [40 C.F.R. § 63.998(c)(1)(i)]

   b. For the temperature monitoring devices in RTO #1 and Boiler #5/TO, Pioneer shall keep records of the date and time of the completion of calibration checks and all maintenance performed on the temperature monitoring devices. [40 C.F.R. §§ 63.998(c)(1)(ii) and 63.2450(k)(1)(ii)]

c. Pioneer shall keep continuous records of the output of the temperature monitoring devices on RTO #1 and Boiler #5/TO during all times each unit is used as a control device for the aggregate batch vent stream. Records shall be maintained as specified in 40 C.F.R. § 63.998(b), except for references to periods of startup, shutdown, or malfunction do not apply pursuant to §§ 63.2346(l) and 63.2450(e)(4). [40 C.F.R. §§ 63.998(c)(2)(i) and 63.998(d)(2)(i)]

d. Pioneer shall keep records of the daily average value of each temperature monitoring device. [40 C.F.R. § 63.998(c)(2)(ii)]

e. Pioneer shall keep records of periods of operation during which the temperature monitoring device parameter boundaries are exceeded. Parameter boundaries are established through an initial or subsequent performance test. [40 C.F.R. § 63.998(c)(2)(iii)]

f. Pioneer shall keep the following records for the closed vent systems:

(1) The identification of all parts of the closed vent system that are designated as unsafe or difficult to inspect, an explanation of why the equipment is unsafe or difficult to inspect, and the plan for inspecting the equipment; [40 C.F.R. § 63.998(d)(1)(i)]

(2) For each closed vent system that contains bypass lines that could divert a vent stream away from the control device and to the atmosphere, Pioneer shall keep a record of either of the following, as applicable:

(i) Hourly records of whether the flow indicator specified under § 63.983(a)(3)(i) was operating and whether a diversion was detected at any time during the hour, as well as records of the times of all periods when the vent stream is diverted from the control device or the flow indicator is not operating; or

(ii) Where a seal mechanism is used to comply with § 63.983(a)(3)(ii), hourly records of flow are not required. In such cases, Pioneer shall record that the monthly visual inspection of the seals or closure mechanisms has been done, and shall record the occurrence of all periods when the seal mechanism is broken, the bypass line valve position has changed, or the key for a lock-and-key type lock has been checked out, and records of any car-seal that has been broken.

[40 C.F.R. § 63.998(d)(1)(ii)]

(3) For a closed vent system, when a leak is detected, Pioneer shall keep a record of the following:

(i) The instrument and the equipment identification number and the operator name, initials, or identification number;
(ii) The date the leak was detected and the date of the first attempt to repair the leak;
(iii) The date of successful repair of the leak;
(iv) The maximum instrument reading measured by the procedures in § 63.983(c) after the leak is successfully repaired or determined to be nonrepairable;
(v) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 days after discovery of the leak. Pioneer may develop a written procedure that identifies the conditions that justify a delay of repair. In such cases, reasons for delay of repair may be documented by citing the relevant sections of the written procedure; and
(vi) Copies of the Periodic Reports as specified in § 63.999(c), if records are not maintained on a computerized database capable of generating summary reports from the records.

[40 C.F.R. § 63.998(d)(1)(iii)]

(4) For each instrumental or visual inspection conducted in accordance with § 63.983(b)(1) for closed vent systems during which no leaks are detected, Pioneer shall record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. [40 C.F.R. § 63.998(d)(1)(iv)]

(5) Pioneer shall record occurrences and the cause of periods when the monitored temperature in Boiler #5/TO or RTO #1, as applicable, was below the temperature established at the most recent performance test during any operating time when it was being used as a control device pursuant to Subpart SS. This information shall be reported in the Periodic Report. [40 C.F.R. § 63.998(d)(5)]

5. Reporting Requirements

Pioneer shall include the information outlined in 40 C.F.R. § 63.999(c), as applicable, in the semiannual report required by this license.

G. 40 C.F.R. Part 63, Subpart OOOO

Pioneer is subject to applicable requirements contained in *National Emission Standards for Hazardous Air Pollutant Emissions: Printing, Coating, and Dyeing of Fabrics and Other Textiles*, 40 C.F.R. Part 63, Subpart OOOO (Subpart OOOO). This subpart applies to owners and operators of major sources where these activities occur. The affected source includes, but is not limited to:

- All web coating equipment used to apply cleaning materials, to apply coatings, and to dry or cure the coating;
- All equipment used to clean the coating equipment;
- All containers used for storage and vessels used for mixing coating, thinning, or cleaning materials;
- All containers used for storage and all equipment and containers used for conveying waste materials generated by the coating operation; and
- All equipment used to convey, treat, or dispose of wastewater streams or residuals generated by the coating operation.

The treaters, impregnators, and Coater C4 and their associated equipment and activities as described above are affected sources.

1. Emission Standards

   Subpart OOOO offers several options for emission standards, which are described in 40 C.F.R. § 63.4291 and Table 1. Pioneer has elected to comply with the "compliant material option" for Treaters M1, M4, M5, and M7. Pioneer complies with the "organic HAP overall control efficiency option" for Impregnators P4, P5, and P9 and Coater C4.

2. Treaters

   a. Pioneer shall limit organic HAP emissions from Treaters M1, M4, M5, and M7 to no more than 0.12 kg of organic HAP per kg of solids applied. [40 C.F.R. § 63.4290 and Table 1, Row 2]

   b. All thinning and cleaning material as purchased shall contain no organic HAP. [40 C.F.R. § 63.4291(a)(1)]

      "No organic HAP" means no organic HAP listed in Table 5 of Subpart OOOO is present at 0.1% by mass or more and no organic HAP not listed in Table 5 of Subpart OOOO is present at 1.0% by mass or more. [40 C.F.R. § 63.4371]

3. Impregnators and Coater C4

   Pioneer shall reduce uncontrolled organic HAP emissions to the atmosphere from Impregnators P4, P5, and P9 and Coater C4 by achieving at least 97%, by weight, organic HAP overall control efficiency. [40 C.F.R. § 63.4290 and Table 1, Row 2]

4. Compliance Demonstration

   Pioneer may apply the following compliance requirements to individual lines or to multiple lines as a group. [40 C.F.R. § 63.4291(a)]

   a. Treaters

      For Treaters M1, M4, M5, and M7, compliance with the emission standards shall be demonstrated by monthly recordkeeping which confirms that the organic HAP content, as purchased, of each coating applied is less than or equal to 0.12 kg of organic HAP per kg of solids applied and that any thinning or cleaning materials contain no organic HAP. [40 C.F.R. §§ 63.4322(a) and (d) and 63.4312(c)(1)(i)]

      The application of any regulated material that does not meet the standards above is a deviation from the emissions limitation and must be reported in the semiannual report. [40 C.F.R. § 63.4322(b)]

   b. Impregnators and Coater C4

      (1) For Impregnators P4, P5, and P9 and Coater C4, Pioneer shall perform the calculations described in 40 C.F.R. § 63.4351(d) on a monthly basis. [40 C.F.R. § 63.4352(a)]

      If Pioneer fails to meet an organic HAP overall control efficiency of at least 97% for any month, this is a deviation that must be reported in the semiannual report. [40 C.F.R. § 63.4352(b)]

      (2) The average temperature in the firebox of Boiler #5/TO in any 3-hour block period shall not fall below the temperature limit established in the most recent performance test. This limit applies during all operating times. [40 C.F.R. § 63.4292(b) and Table 2]

5. Monitoring

   a. Pioneer shall install, operate, and maintain a compliance parameter monitoring system (CPMS) to monitor the firebox temperature of the control device (Boiler #5/TO) used to control emissions from Impregnators P4, P5, and P9 and Coater C4. The temperature monitoring equipment shall be installed, operated, and

maintained according to the manufacturer's specifications. The calibration of the chart recorder, data logger, or temperature indicator must be verified every three months or the chart recorder, data logger, or temperature indicator must be replaced. A thermocouple is considered part of the temperature indicator for purposes of performing periodic calibration and verification checks. [40 C.F.R. § 63.4364(c)(1)]

b. The temperature monitoring device shall be equipped with a continuous recorder with an accuracy of +/- 1 percent of the temperature being monitored in degrees Celsius (°C) or +/- 1 °C, whichever is greater. The thermocouple or temperature sensor must be installed in the combustion chamber at a location in the combustion zone. [40 C.F.R. § 63.4364(c)(2)]

c. Data from the firebox temperatures CPMS shall be collected and averages determined pursuant to 40 C.F.R. §§ 63.4364(a)(1) – (8). [40 C.F.R. § 63.4364(a)]

d. Pioneer shall develop a site-specific monitoring plan for the capture systems containing the information in 40 C.F.R. §§ 63.4364(e)(1) and (2) and monitor the capture system in accordance with the plan. The monitoring plan shall be made available for inspection by the Department upon request. [40 C.F.R. § 63.4364(e) and Table 2, Row 3]

Any deviation from the operating parameter value or range of values which are monitored according to the plan will be considered a deviation from the operating limit.

e. The site-specific monitoring plan for the capture systems shall be reviewed at least annually. [40 C.F.R. § 63.4364(e)(5)]

6. Work Practice Plan

a. Pioneer shall develop and implement a work practice plan to minimize organic HAP emissions from the storage, mixing, and conveying of regulated materials used in, and waste materials generated by, Impregnators P4, P5, and P9 and Coater C4. [40 C.F.R. § 63.4293(b)]

b. The work practice plan shall specify practices and procedures to ensure that, at a minimum, the following elements are implemented:

(1) All organic-HAP-containing regulated materials and waste materials shall be stored in closed containers.

(2) Spills of organic-HAP-containing regulated materials, and waste materials shall be minimized.

(3) Organic-HAP-containing regulated materials and waste materials shall be conveyed from one location to another in closed containers or pipes.

(4) Mixing vessels which contain organic-HAP-containing regulated materials shall be closed except when adding to, removing, or mixing the contents.

(5) Emissions of organic HAP shall be minimized during cleaning of web coating/printing or dyeing/finishing storage, mixing, and conveying equipment.

[40 C.F.R. § 63.4293(b)]

7. Recordkeeping Requirements

a. Pioneer shall maintain the following records:

(1) A copy of each notification and report submitted to comply with 40 C.F.R. Part 63, Subpart OOOO, and the documentation supporting each notification and report. [40 C.F.R. § 63.4312(a)]

(2) A current copy of information provided by materials suppliers or manufacturers, such as manufacturer's formulation data or test data used to determine the mass fraction of organic HAP for coating, thinning, and cleaning materials; and the mass fraction of solids for coating materials. If Pioneer conducted testing to determine mass fraction of organic HAP of coating materials or the mass fraction of solids of coating materials, Pioneer must keep a copy of the complete test report. If Pioneer uses information provided by the manufacturer or supplier of the material that was based on testing, Pioneer must keep the summary sheet of results provided by the manufacturer or supplier. Pioneer is not required to obtain the test report or other supporting documentation from the manufacturer or supplier. [40 C.F.R. § 63.4312(b)]

(3) The following records on a monthly basis:

(i) A record of the web coating operations on which each compliance option was used (e.g., compliant material option or organic HAP overall control efficiency option) and the time period (beginning and ending dates) for which each option was used; For each month, a record of all required calculations for the compliance options used. [40 C.F.R. § 63.4312(c)(1)]

(ii) For Treaters M1, M4, M5, and M7, a record of the calculation of the organic HAP content, as purchased, for each coating and printing material applied; [40 C.F.R. § 63.4312(c)(1)(i)]

(4) The records required to show continuous compliance with each operating limit specified in Table 2 (i.e., average firebox temperature and capture system monitoring); [40 C.F.R. § 63.4312(j)(3)]

(5) The data and documentation used to determine used to support a determination that the capture system meets the criteria in Method 204 of appendix M to 40 C.F.R. part 51 for a PTE and has a capture efficiency of 100 percent; [40 C.F.R. § 63.4312(j)(4)]

(6) Records of each add-on control device performance test; [40 C.F.R. § 63.4312(j)(6)(i)]

(7) Records of the operation conditions during the add-on control device performance test showing that the performance test was conducted under representative operating conditions; [40 C.F.R. § 63.4312(j)(6)(ii)]

(8) Records of the data and calculations used to establish the emission capture and add-on control device operating limits (i.e., average firebox temperature and capture system monitoring) and to document compliance with the operating limits as specified in Table 2; [40 C.F.R. § 63.4312(j)(7)]

(9) A record of the work practice plan and documentation that Pioneer is implementing the plan on a continuous basis; [40 C.F.R. § 63.4312(j)(8)]

(10) A record of the name and mass of each regulated material applied; [40 C.F.R. § 63.4312(d)]

(11) A record of the mass fraction of organic HAP for each regulated material applied; [40 C.F.R. § 63.4312(e)] and

(12) A record of the mass fraction of coating solids for each coating material applied. [40 C.F.R. § 63.4312(f)]

(13) The following records for each deviation from an emission limitation:

(i) The date, time, and duration of the deviation;

(ii) A list of the affected sources or equipment for which the deviation occurred and the cause of the deviation;

(iii) An estimate of the quantity of each regulated pollutant emitted over any applicable emission limit or any applicable operating limit, and a description of the method used to calculate the estimate; and

(iv) A record of actions taken to minimize emissions in accordance with 40 C.F.R. § 63.4300(b) and any corrective actions taken to return the affected unit to its normal or usual manner of operation.

[40 C.F.R. § 63.4312(i)]

b. Pioneer's records shall be in a form suitable and readily available for expeditious review. Where appropriate, the records may be maintained as electronic spreadsheets or as a database. Any records required to be maintained by Subpart OOOO that are in reports that were submitted electronically via the EPA's CEDRI may be maintained in electronic format. This ability to maintain electronic copies does not affect the requirement to make records, data, and reports available upon request to the Department or the EPA as part of an on-site compliance evaluation. [40 C.F.R. § 63.4313(a)]

c. Pioneer shall keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. [40 C.F.R. § 63.4313(b)] Note: All records must be kept for a period of six years pursuant to Standard Condition (6).

d. Pioneer shall keep each record on site for at least two years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. Records may be kept off site for subsequent years. [40 C.F.R. § 63.4313(c)]

8. Reporting Requirements

Pioneer shall submit to the Department and EPA all notifications and reports required by 40 C.F.R. Part 63, Subpart OOOO including, but not limited to, the following:

a. Pioneer shall prepare and submit to EPA and the Department a compliance report every six months which contains the information contained in §§ 63.4311(a)(3)(i) through (v) and 63.4311(a)(4) through (8), as applicable. [40 C.F.R. §§ 63.4311(a) and 63.4311(a)(3)]

b. Each semi-annual compliance report shall cover the reporting period of January 1 through June 30 or July 1 through December 31 (as applicable). Each semi-annual compliance report shall be postmarked or delivered no later than July 31 or January 31 (respectively). [40 C.F.R. §§ 63.4311(a)(1)(ii) and (iii)]

c. If Pioneer submits a semiannual compliance report pursuant to Subpart OOOO along with, or as part of, the semiannual monitoring report required by 40 C.F.R. Part 70 (i.e., this Title V license) and the semiannual compliance report includes all required information concerning deviations from any emission limitation in

Subpart OOOO, its submission shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a semiannual compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the Department. [40 C.F.R. § 63.4311(a)(2)]

d. Semi-annual compliance reports shall be submitted electronically to the EPA via their electronic reporting tool CEDRI. [40 C.F.R. § 63.4311(f)]

9. General Requirements

a. The web coating operations shall be in compliance with the applicable emission limits in 40 C.F.R. Part 63, Subpart OOOO, Table 1, and work practice standards at all times. [40 C.F.R. §§ 63.4300(a)(1), (a)(3)(i) and (a)(3)(iii)]

b. For Impregnators P4, P5, and P9 and Coater C4, Pioneer shall be in compliance with the operating limits for emission capture systems and add-on control devices for all averaging time periods. [40 C.F.R. § 63.4300(a)(3)(ii)]

c. Pioneer shall operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the owner or operator to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether a source is operating in compliance with operation and maintenance requirements will be based on information available to the Department and EPA that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the affected source. [40 C.F.R. § 63.4300(b)]

H. 40 C.F.R. Part 63, Subpart ZZZZ

National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines 40 C.F.R. Part 63, Subpart ZZZZ is applicable to Generators #1 and #2 and Fire Pump #1. The units are considered existing, emergency stationary reciprocating internal combustion engines (RICE) at a major HAP source and are not subject to New Source Performance Standards 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.

1. Emergency Engine Designation and Operating Criteria

Under Subpart ZZZZ, a stationary reciprocating internal combustion engine (RICE) is considered an **emergency** stationary RICE (emergency engine) as long as the engine is operated in accordance with the following criteria. Operation of an engine outside of the criteria specified below may cause the engine to no longer be considered an emergency engine under Subpart ZZZZ, resulting in the engine being subject to requirements applicable to **non-emergency** engines.

a. Emergency Situation Operation (On-Site)

There is no operating time limit on the use of an emergency engine to provide electrical power or mechanical work during an emergency situation. Examples of use of an emergency engine during emergency situations include the following:

- Use of an engine to produce power for critical networks or equipment (including power supplied to portions of a facility) because of failure or interruption of electric power from the local utility (or the normal power source, if the facility runs on its own power production);
- Use of an engine to mitigate an on-site disaster;
- Use of an engine to pump water in the case of fire, flood, natural disaster, or severe weather conditions; and
- Similar instances.

b. Non-Emergency Situation Operation)

An emergency engine may be operated up to a maximum of 100 hours per calendar year for maintenance checks, readiness testing, and other non-emergency situations as described below.

(1) An emergency engine may be operated for a maximum of 100 hours per calendar year for 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 more than 100 hours per calendar year.

(2) An emergency engine may be operated for up to 50 hours per calendar year for other non-emergency situations. **However, these operating hours are counted as part of the 100 hours per calendar year operating limit described in paragraph (2) and (2) (i) above.**

The 50 hours per calendar year operating limit for other non-emergency

situations cannot be used for peak shaving, 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.

Generators #1 and #2 and Fire Pump #1 shall be limited to the usage outlined in 40 C.F.R. § 63.6640(f) and therefore may be classified as existing emergency stationary RICE as defined in 40 C.F.R. Part 63, Subpart ZZZZ. Failure to comply with all of the requirements listed in 40 C.F.R. § 63.6640(f) may cause these engines to not be considered emergency engines and therefore subject to all applicable requirements for non-emergency engines.

2. 40 C.F.R. Part 63, Subpart ZZZZ Requirements

a. Operation and Maintenance Requirements

[40 C.F.R. § 63.6602 and Table 2(c)]

	Operating Limitations
Compression ignition (distillate fuel) units: **Generator #2** **Fire Pump #1**	- Change oil and filter every 500 hours of operation or within 1 year + 30 days of the previous change, whichever comes first; - Inspect the air cleaner every 1,000 hours of operation or within 1 year + 30 days of the previous inspection, whichever comes first, and replace as necessary; and - Inspect all hoses and belts every 500 hours of operation or within 1 year + 30 days of the previous inspection, whichever comes first, and replace as necessary.
Spark ignition (natural gas, propane) units: **Generator #1**	- Change oil and filter every 500 hours of operation or within 1 year + 30 days of the previous change, whichever comes first; - Inspect spark plugs every 1,000 hours of operation or within 1 year + 30 days of the previous inspection, whichever comes first, and replace as necessary; and - Inspect all hoses and belts every 500 hours of operation or within 1 year + 30 days of the previous inspection, whichever comes first, and replace as necessary.

The engines shall be operated and maintained according to the manufacturer's emission-related written instructions, or Pioneer 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 C.F.R. § 63.6625(e)]

b. Optional Oil Analysis Program

Pioneer has the option of utilizing an oil analysis program which complies with the requirements of § 63.6625(i) in order to extend the specified oil change requirement. If this option is used, Pioneer must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for each engine. The analysis program must be part of the maintenance plan for each engine. [40 C.F.R.§ 63.6625(i)]

c. Non-Resettable Hour Meter Requirement

A non-resettable hour meter shall be installed and operated on each engine. [40 C.F.R. § 63.6625(f)]

d. Startup Idle and Startup Time Minimization Requirements

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. [40 C.F.R. § 63.6625(h) and 40 C.F.R. Part 63, Subpart ZZZZ Table 2c]

e. Annual Time Limit for Maintenance and Testing

As emergency engines, the units shall each be limited to 100 hours/year for maintenance checks and readiness testing. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not include peak shaving, 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). [40 C.F.R. § 63.6640(f)]

f. Recordkeeping

Pioneer shall keep records that include maintenance conducted on the engines and the hours of operation of each engine recorded through the non-resettable hour meter. Documentation shall include the number of hours each unit operated for emergency purposes, the number of hours each unit operated for non-emergency purposes, and the reason each engine was in operation during each time. [40 C.F.R. § 63.6655(f)]

IV. AMBIENT AIR QUALITY ANALYSIS

Pioneer previously submitted an ambient air quality analysis demonstrating that emissions from the facility, in conjunction with all other sources, do not violate ambient air quality standards (see license A-448-72-K-A/R issued 8/23/1995). An additional ambient air quality analysis is not required for this Part 70 License Renewal.

ORDER

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

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

The Department hereby grants the Part 70 License A-448-70-F-R/A pursuant to 06-096 C.M.R. ch. 140 and the preconstruction permitting requirements of 06-096 C.M.R. ch. 115 and subject to the standard and specific conditions below.

All federally enforceable and State-only enforceable conditions in existing air licenses previously issued to Pioneer pursuant to the Department's preconstruction permitting requirements have been incorporated into this Part 70 license, except for such conditions that the Department has determined are obsolete, extraneous, or otherwise environmentally insignificant, as explained in the Findings of Fact accompanying this Order. As such, the conditions in this license supersede all previously issued air license conditions.

Federally enforceable conditions in this Part 70 license must be changed pursuant to the applicable requirements in *Major and Minor Source Air Emission License Regulations*, 06-096 C.M.R. ch. 115 for making such changes and pursuant to the applicable requirements in 06-096 C.M.R. ch. 140.

For each standard and specific condition which is state enforceable only, state-only enforceability is designated with the following statement: **Enforceable by State-only**.

Severability. The invalidity or unenforceability of any provision of this License or part thereof 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 STATEMENTS

(1) The Part 70 license does not convey any property rights of any sort, or any exclusive privilege. [06-096 C.M.R. ch. 140]

(2) All terms and conditions are enforceable by EPA and citizens under the CAA unless specifically designated as state enforceable. [06-096 C.M.R. ch. 140]

(3) 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 C.M.R. ch. 140]

(4) Notwithstanding any other provision 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, rule, regulation, or Part 70 license requirement. [06-096 C.M.R. ch. 140]

(5) Compliance with the conditions of this Part 70 license will be deemed compliance with any Applicable requirement as of the date of license issuance and is deemed a permit shield, provided that:

A. Such Applicable and state requirements are included and are specifically identified in the Part 70 license, except where the Part 70 license term or condition is specifically identified as not having a permit shield; or

B. The Department, in acting on the Part 70 license application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the Part 70 license includes the determination or a concise summary, thereof.

Nothing in this section or any Part 70 license alters or affects the provisions of Section 303 of the CAA (emergency orders), including the authority of EPA under Section 303; the liability of an owner or operator of a source for any violation of Applicable requirements prior to or at the time of permit issuance; or the ability of EPA to obtain information from a source pursuant to Section 114 of the CAA.

The following requirements have been specifically identified as not applicable based upon information submitted by the licensee.

Permit Shield Table

Source	Citation	Description	Basis for Determination
Storage Tanks	06-096 C.M.R. ch. 111	Petroleum Liquid Storage Vapor Control	Units have storage capacities less than 39,000 gallons.
Storage Tanks	06-096 C.M.R. ch. 118	Gasoline Dispensing Facilities Vapor Control	The units do not store gasoline.
Storage Tanks	06-096 C.M.R. ch. 133	Petroleum Liquids Transfer Vapor Recovery at Bulk Gasoline Plants	Pioneer is not a bulk gasoline plant.
Storage Tanks	06-096 C.M.R. ch. 170	Degassing of Petroleum Storage Tanks, Marine Vessels, and Transport Vessels	Units have capacities less than 39,000 gallons and are not transport vessels or marine vessels.
Storage Tanks	06-096 C.M.R. ch. 171	Control of Petroleum Storage Facilities	Units have capacities less than 39,000 gallons, and Pioneer is not a petroleum storage facility.
Treaters, Impregnators, and Coater	06-096 C.M.R. ch. 134	VOC RACT	Exempt pursuant to § 1(C)(3)(a) because they are subject to requirements in 06-096 C.M.R. ch. 123.
CPL Line #1	06-096 C.M.R. ch. 134	VOC RACT	Exempt pursuant to § 1(C)(2) because unit was subject to BACT.
Boiler #6	40 C.F.R. Part 60, Subpart Db	NSPS for Industrial-Commercial-Institutional Steam Generating Units	Commenced construction prior to June 19, 1984 applicability date and has a maximum heat input less than 100 MMBtu/hr.
Boiler #4, Boiler #6, Boiler #5/TO	40 C.F.R. Part 60, Subpart Dc	NSPS for Steam Generating Units less than 100 MMBtu/hr	Units each manufactured prior to 1989.
Process Heater #8, Thermal Oil Heater #1	40 C.F.R. Part 60, Subpart Dc	NSPS for Steam Generating Units less than 100 MMBtu/hr	Units each have a heat input less than 10 MMBtu/hr.
Storage Tanks	40 C.F.R. Part 60, Subpart K	NSPS for Petroleum Storage Vessels	All storage tanks have capacities less than 40,000 gallons.
Storage Tanks	40 C.F.R. Part 60, Subpart Ka	NSPS for Petroleum Storage Vessels	All storage tanks have capacities less than 40,000 gallons.

Source	Citation	Description	Basis for Determination
Storage Tanks	40 C.F.R. Part 63, Subpart Kb	NSPS for VOL Storage Vessels	Tanks #29 and #30 were constructed prior to 1984. All other tanks have capacities less than 75 m^3.
Reactors K1- K8	40 C.F.R. Part 60, Subpart VV	Standards of Performance for Equipment Leaks of VOC in the SOCMI	Pioneer's resin production process units do not produce, as intermediates or final products, any of the chemicals listed in 40 C.F.R. § 60.489.
Reactors K1- K8	40 C.F.R. Part 60, Subpart DDD	Standards for Performance for VOC Emissions from the Polymer Manufacturing Industry	Pioneer's resin production process units do not produce polypropylene, polyethylene, polystyrene, or poly (ethylene terephthalate) resins as defined in 40 C.F.R. § 60.561.
Reactors K1- K8	40 C.F.R. Part 60, Subpart RRR	Standards of Performance for VOC Emissions from SOCMI Reactor Processes.	Pioneer's reactor processes are operated on a batch operation basis, and none of the reactors produce any of the chemicals listed in 40 C.F.R. § 60.707 as either a product, co-product, by-product, or intermediate.
CPL Line #1	40 C.F.R. Part 60, Subpart VVV	NSPS for Polymeric Coating of Supporting Substrates	CPL Line #1 does not apply coating to a substrate.
Generator #2 & Fire Pump #1	40 C.F.R. Part 60, Subpart IIII	NSPS for Stationary Compression Ignition Internal Combustion Engine	Manufactured prior to April 1, 2006 applicability date
Generator #1	40 C.F.R. Part 60, Subpart JJJJ	NSPS for Spark Ignition Internal Combustion Engine	Manufactured prior to April 1, 2006 applicability date.
Reactors K1- K8	40 C.F.R. Part 63, Subparts F, G, H, and I	NESHAP for Source Categories (MACT Standards) Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry	Pioneer's manufacturing process units do not produce as a primary product any of the chemicals listed in Table 1 in 40 C.F.R. Part 63, Subpart F.
Reactors K1- K8	40 C.F.R. Part 63, Subpart U	NESHAP for Source Categories (MACT Standards Group I Polymers and Resins)	Pioneer's resin production reactors do not manufacture any of the designated "elastomer" resins designated in 40 C.F.R. § 63.482.

Source	Citation	Description	Basis for Determination
Reactors K1- K8	40 C.F.R. Part 63, Subpart W	NESHAP for Source Categories (MACT Standards Group II Polymers and Resins Epoxy Resins Production and Non-Nylon Polyamides Production)	Pioneer's resin production reactors do not manufacture "basic liquid epoxy resins" (BLR) or "wet strength resins" (WSR) as defined in 40 C.F.R. § 63.522.
Reactors K1- K8	40 C.F.R. Part 63, Subpart YY	NESHAP for Source Categories (Generic MACT Standards for Acetal Resins Production)	Pioneer's resin production reactors do not manufacture acetal resins as defined in 40 C.F.R. § 63.1103(a)(2).
Reactors K1- K8	40 C.F.R. Part 63, Subpart JJJ	NESHAPs for Source Categories (MACT Standards Group IV Polymers and Resins)	Pioneer's resin production reactors do not manufacture "thermoplastic products" or resins as defined in 40 C.F.R. § 63.1312.
Reactor K1 & K2	40 C.F.R. Part 63, Subpart OOO	Portions of the NESHAP for Source Categories (MACT Standards Group III Polymers and Resins) Amino/Phenolic Resins Production: 1. New Source Provisions	Pioneer's Amino/Phenolic Resin Process Units are not classified as a new source.
Reactors K3 – K7	40 C.F.R. Part 63, Subpart OOO	NESHAP for Source Categories (MACT Standards Group III Polymers and Resins) Amino/Phenolic Resins Production:	The production of an amino/phenolic resin does not account for the greatest percent of the annual design capacity of the unit on a mass basis.
Reactors K1 - K8	40 C.F.R. Part 63, Subpart PPP	NESHAP for Source Categories (MACT Standards for Polyether Polyols Production)	Pioneer's resin production reactors do not manufacture "polyether polyols" pursuant to 40 C.F.R. § 63.1423.
Reactors K1 & K2	40 C.F.R. Part 63, Subpart FFFF	NESHAP for Misc. Organic Chemical Manufacturing	Units are exempt because they are subject to applicable requirements under 40 C.F.R. Part 63, Subpart OOO.
Reactor K3	40 C.F.R. Part 63, Subpart FFFF	NESHAP for Misc. Organic Chemical Manufacturing	Unit is exempt because it is subject to applicable requirements under 40 C.F.R. Part 63, Subpart EEEE.
Storage Tanks	40 C.F.R. Part 63, Subpart FFFF	NESHAP for Misc. Organic Chemical Manufacturing	Units are exempt because they are subject to applicable requirements under 40 C.F.R. Part 63, Subparts OOO or EEEE.
Reactor K3	40 C.F.R. Part 63, Subpart JJJJ	NESHAP for Paper and Other Web Coating	This subpart contains no applicable requirements.

Source	Citation	Description	Basis for Determination
CPL Line #1	40 C.F.R. Part 63, Subpart JJJJ	NESHAP for Paper and Other Web Coating	Unit does not apply coating to a substrate.
CPL Line #1	40 C.F.R. Part 63, Subpart OOOO	NESHAP for Printing, Coating, and Dyeing of Fabrics and Other Textiles	Unit does not apply coating to a substrate.
Boiler #5/TO	40 C.F.R. Part 63, Subpart DDDDD	NESHAP for ICI Boilers and Process Heaters	Unit is used as a control device for one or more other subparts. Not subject pursuant to § 63.7491(h).
Treaters, Impregnators, and Coater	40 C.F.R. Part 63, Subpart HHHHH	NESHAP for Miscellaneous Coating Manufacturing Processes	Pioneer is exempt due to being subject to other MACTs
All Boilers	40 C.F.R. Part 63, Subpart JJJJJJ	NESHAP for ICI Boilers at Area Sources	Pioneer is a major source of HAP.

[06-096 C.M.R. ch. 140]

(6) The Part 70 license shall be reopened for cause by the Department or EPA, prior to the expiration of the Part 70 license, if:

A. Additional Applicable requirements under the CAA become applicable to a Part 70 major source with a remaining Part 70 license term of three or more years. However, no opening is required if the effective date of the requirement is later than the date on which the Part 70 license is due to expire, unless the original Part 70 license or any of its terms and conditions has been extended pursuant to 06-096 C.M.R. ch. 140;

B. Additional requirements (including excess emissions requirements) become applicable to a Title IV source under the acid rain program. Upon approval by EPA, excess emissions offset plans will be deemed to be incorporated into the Part 70 license;

C. The Department or EPA determines that the Part 70 license contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the Part 70 license; or

D. The Department or EPA determines that the Part 70 license must be revised or revoked to assure compliance with the Applicable requirements.

The licensee shall furnish to the Department within a reasonable time any information that the Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the Part 70 license or to determine compliance with the Part 70 license.

[06-096 C.M.R. ch. 140]

(7) No license revision or amendment is required, under any approved economic incentives, marketable licenses, emissions trading, and other similar programs or processes for changes that are provided for in the Part 70 license. [06-096 C.M.R. ch. 140]

STANDARD CONDITIONS

(1) Employees and authorized representatives of the Department shall be allowed safe 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 and this license (38 M.R.S. § 347-C). [06-096 C.M.R. ch. 140]

(2) The licensee shall acquire a new or amended air emission license pursuant to 06-096 C.M.R. ch. 115 prior to commencing construction of a modification, unless specifically provided for in 06-096 C.M.R. ch. 140 or 06-096 C.M.R. ch. 115. [06-096 C.M.R. ch. 140]

(3) 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 C.M.R. ch. 140]
Enforceable by State-only

(4) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to 38 M.R.S. § 353-A. Payment of the annual air emission license fee for Pioneer is due by the end of May of each year. [38 M.R.S. § 353-A(3)]

(5) The licensee shall maintain and operate all emission units and air pollution control systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [06-096 C.M.R. ch. 140]
Enforceable by State-only

(6) 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 years. In addition, the licensee shall retain records of all required monitoring data and support information for a period of at least six years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the Part 70 license. The records shall be submitted to the Department upon written request or in accordance with other provisions of this license. [06-096 C.M.R. ch. 140]

(7) The licensee shall comply with all terms and conditions of the air emission license. The submission of notice of intent to reopen for cause by the Department, the filing of an appeal, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for the renewal of a Part 70 license or amendment does not stay any condition of the Part 70 license. [06-096 C.M.R. ch. 140]

(8) In accordance with the Department's Performance Testing Guidance and 40 C.F.R. Part 60 or other method approved or required by the Department, the licensee shall:

A. Submit to the Department for approval a test protocol at least 30 calendar days prior to the scheduled date of the emissions test, unless the Department agrees to a shorter submission timeframe;

B. Perform emissions testing under circumstances representative of the facility's normal process and operating conditions:

1. Within 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;

2. To demonstrate compliance with the applicable emission standards; or

3. Pursuant to any other requirement of this license to perform emissions testing.

C. Install or make provisions to install test ports that meet the criteria of 40 C.F.R. Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and

D. Submit a written report to the Department within 30 days from date of test completion, unless an extension is granted by the Department.

[06-096 C.M.R. ch. 140] **Enforceable by State-only**

(9) If the results of an emissions test performed under circumstances representative of the facility's normal process and operating conditions indicates emissions in excess of the applicable standards, then:

A. Within 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 C.F.R. Part 60 or other method approved or required by the Department;

B. The days of violation will be presumed to include the date of the emissions 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 until a demonstration of compliance under normal and representative process and operating conditions is completed.

[06-096 C.M.R. ch. 140] **Enforceable by State-only**

(10) The licensee shall maintain records of all deviations from license requirements. Such deviations shall include, but are not limited to malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emission unit itself that is not consistent with the terms and conditions of the air emission license.

A. The licensee shall notify the Department within 48 hours of a violation of any emission standard or a malfunction or breakdown in any component part that causes a violation of any emission standard, and shall report the probable cause, corrective action, and any excess emissions in the units of the applicable emission limitation;

B. The licensee shall submit a report to the Department on a quarterly basis describing all violations of any emission standard.

Pursuant to 38 M.R.S. § 349(9), the Commissioner may exempt from civil penalty an air emission in excess of license limitations if the emission occurs during start-up or shutdown or results exclusively from an unavoidable malfunction entirely beyond the control of the licensee and the licensee has taken all reasonable steps to minimize or prevent any emission and takes corrective action as soon as possible. There may be no exemption if the malfunction is caused, entirely or in part, by poor maintenance, careless operation, poor design, or any other reasonably preventable condition or preventable equipment breakdown. The burden of proof is on the licensee seeking the exemption under this subsection.

C. All other deviations from permit requirements shall be reported to the Department in the facility's semiannual report.

[06-096 C.M.R. ch. 140]

(11) Upon the written request of 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 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 C.M.R. ch. 140]

(12) The licensee shall submit semiannual reports of any required periodic monitoring by January 31 and July 31 of each year, or on an equivalent schedule specified in the license. All instances of deviations from Part 70 license requirements must be clearly identified in such reports. All required reports must be certified by a responsible official. [06-096 C.M.R. ch. 140]

(13) The licensee shall submit a compliance certification to the Department and EPA annually by January 31 of each year, or more frequently if specified in the applicable requirement or by the Department. The compliance certification shall include the following:

A. The identification of each term or condition of the Part 70 license that is the basis of the certification;
B. The compliance status;
C. Whether compliance was continuous or intermittent;
D. The method(s) used for determining the compliance status of the source, currently and over the reporting period; and
E. Such other facts as the Department may require to determine the compliance status of the source.

The facility's designated responsible official must sign this report. Certification of compliance is to be based on the stack testing or monitoring data required by this license. Where the license does not require such data, or the license requires such data upon request of the Department and the Department has not requested the testing or monitoring, compliance may be certified based upon other reasonably available information such as the design of the equipment or applicable emission factors.
[06-096 C.M.R. ch. 140]

SPECIFIC CONDITIONS

(14) **Boiler #4**

A. Boiler #4 is license to fire #6 fuel oil and natural gas. [06-096 C.M.R. ch. 140, BPT]

B. NO_x RACT

1. Boiler #4 shall be limited to NO_x emissions of less than 100 tpy on a 12-month rolling total basis. [06-096 C.M.R. ch. 138 (A-448-72-K-A/R, 8/23/1995)]

2. Compliance with the annual NO_x limit shall be demonstrated through records of all fuel use in Boiler #4 on a monthly and 12-month rolling total basis and stack test data (if available) or EPA's Compilation of Air Pollutant Emission Factors from Stationary Sources (AP-42). Calculations of NO_x emissions shall be performed at least once annually. Additional calculation of emissions to demonstrate compliance with this limit shall be performed upon request by the Department. [06-096 C.M.R. ch. 140, BPT]

3. Pioneer shall perform an annual tune-up on Boiler #4, which includes the following:

   a. A tune-up procedure file must be kept on-site and made available to the Department upon request;

   b. An oxygen/carbon monoxide curve or an oxygen/smoke curve must be kept on file;

   c. Once the optimum excess oxygen setting has been determined, Pioneer must periodically verify and document that the setting remains at that value; and

   d. If the minimum oxygen level found is substantially higher than the value provided by the combustion unit manufacturer, Pioneer must improve the fuel and air mixing, thereby allowing operation with less air.

   [06-096 C.M.R. ch. 138, § 3(J)(20)]

C. Emission Limits
(Emission limits are on a 1-hour block average basis unless otherwise stated.)

1. Emissions from Boiler #4 shall not exceed the following limits:

Pollutant	Fuel	ppmdv	Origin and Authority
CO	#6 fuel oil	130 @ 3% O_2 See Note 1	40 C.F.R. Part 63, Subpart DDDDD, Table 2, Rows 15(a)

Note 1: Pursuant to 40 C.F.R. § 63.7500(f), this limit applies at all operating times except periods of startup and shutdown.

2. Emissions from Boiler #4 shall not exceed the following limits:

Pollutant	Fuel	lb/MMBtu	Origin and Authority
PM	natural gas or #6 fuel oil	0.20	06-096 C.M.R. ch. 103, § 2(A)(1)
	#6 fuel oil	5.9×10^{-2} See Note 1	40 C.F.R. Part 63, Subpart DDDDD, Table 2, Row 15(b)

Pollutant	Fuel	lb/MMBtu	Origin and Authority
HCl	#6 fuel oil	1.1×10^{-3} See Note 1	40 C.F.R. Part 63, Subpart DDDDD, Table 2, Row 14(a)
Hg	#6 fuel oil	7.3×10^{-7} See Note 1	40 C.F.R. Part 63, Subpart DDDDD, Table 2, Row 14(b)

Note 1: Pursuant to 40 C.F.R. § 63.7500(f), this limit applies at all operating times except periods of startup and shutdown.

3. Emissions from Boiler #4 shall not exceed the following limits:

Pollutant	Fuel	lb/hr	Origin and Authority
PM	natural gas	2.5	06-096 C.M.R. ch. 115, BACT (A-448-77-7-M, 5/3/2012)
	#6 fuel oil	11.1	06-096 C.M.R. ch. 140, BPT (A-448-72-K-A/R, 8/23/1995) **Enforceable by State-only**
PM_{10}	natural gas	2.5	06-096 C.M.R. ch. 115, BACT (A-448-77-7-M, 5/3/2012)
	#6 fuel oil	11.1	06-096 C.M.R. ch. 140, BPT (A-448-72-K-A/R, 8/23/1995) **Enforceable by State-only**
$PM_{2.5}$	natural gas	2.5	06-096 C.M.R. ch. 140, BPT **Enforceable by State-only**
	#6 fuel oil	11.1	06-096 C.M.R. ch. 140, BPT **Enforceable by State-only**
SO_2	natural gas	0.1	06-096 C.M.R. ch. 115, BACT (A-448-77-7-M, 5/3/2012)
	#6 fuel oil	29.2	06-096 C.M.R. ch. 140, BPT **Enforceable by State-only**
NO_x	natural gas	5.2	06-096 C.M.R. ch. 115, BACT (A-448-77-7-M, 5/3/2012)
	#6 fuel oil	33.3	06-096 C.M.R. ch. 140, BPT (A-448-72-K-A/R, 8/23/1995) **Enforceable by State-only**
CO	natural gas	4.4	06-096 C.M.R. ch. 115, BACT (A-448-77-7-M, 5/3/2012)
	#6 fuel oil	22.2	06-096 C.M.R. ch. 140, BPT (A-448-72-K-A/R, 8/23/1995) **Enforceable by State-only**
VOC	natural gas	0.3	06-096 C.M.R. ch. 115, BACT (A-448-77-7-M, 5/3/2012)
	#6 fuel oil	0.6	06-096 C.M.R. ch. 140, BPT (A-448-72-K-A/R, 8/23/1995) **Enforceable by State-only**

D. Compliance Methods

Compliance with the emission limits listed above shall be demonstrated in accordance with the following methods and frequencies, or other methods and frequencies as approved by the Department [06-096 C.M.R. ch. 140]:

Pollutant	Applicable Emission Limits	Compliance Method	Frequency
PM	lb/MMBtu	Performance testing in accordance with 40 C.F.R. Part 60, App. A, Method 5	In accordance with 40 C.F.R. Part 63, Subpart DDDDD See Note 1
	lb/hr		
$PM_{10}/PM_{2.5}$	lb/hr	Performance testing in accordance with 40 C.F.R. Part 51, App. M, Methods 201 or 201A and Method 202	As requested
SO_2	lb/hr	Performance testing in accordance with 40 C.F.R. Part 60, App. A, Method 6	As requested
NO_x	lb/hr	40 C.F.R. Part 60, App. A, Method 7E	As requested See Note 1
	tpy	Recordkeeping See Note 1	See Note 2
CO	ppmdv	Performance testing in accordance with 40 C.F.R. Part 60, App. A, Method 10	In accordance with 40 C.F.R. Part 63, Subpart DDDDD
	lb/hr		As requested
VOC	lb/hr	Performance testing in accordance with 40 C.F.R. Part 60, App. A, Method 25 or 25A	As requested
HCl	lb/MMBtu	Either performance testing or fuel analysis in accordance with 40 C.F.R. Part 63, Subpart DDDDD	In accordance with 40 C.F.R. Part 63, Subpart DDDDD
Hg	lb/MMBtu		
Visible Emissions	% opacity	Performance testing in accordance with 40 C.F.R. Part 60, App. A, Method 9	As requested

Note 1: If Pioneer combusts more than 350,000 gallons of #6 fuel oil in Boiler #4 in any calendar year, a performance test for PM and NO_x shall be conducted by July 1 of the following year. [06-096 C.M.R. 140, BPT (A-448-70-A-A/I, 4/20/2004)] **Enforceable by State-only**

Note 2: Compliance with the annual NO_x limit of less than 100 tpy shall be demonstrated through records of all fuel use in Boiler #4 on a monthly and 12-month rolling total basis. Calculations of NO_x emissions shall be performed at least once annually. Additional calculation of emissions to demonstrate compliance with this limit shall be performed upon request by the Department.

E. Periodic Monitoring

Pioneer shall record data and maintain records for the following periodic monitoring values for Boiler #4.

1. Hours of operation for Boiler #4 on a monthly and calendar year basis. [06-096 C.M.R ch. 137]
2. Types and amounts of each fuel fired on a monthly basis; [06-096 C.M.R. ch. 137 and 40 C.F.R. § 63.7555(d)(1)]
3. Sulfur content (% by weight) of all #6 fuel oil fired; [06-096 C.M.R. ch. 137]
4. Calculations of NO_x emissions performed at least once annually and upon request of the Department; [06-096 C.M.R. ch. 138] and
5. Recordkeeping in accordance with the requirements of 40 C.F.R. Part 63, Subpart DDDDD.

F. 40 C.F.R. Part 63

Pioneer shall comply with all applicable requirements for Boiler #4 in the most current version of 40 C.F.R. Part 63, Subpart DDDDD. Requirements for this regulation are addressed in Condition (35)(A).

(15) **Boiler #6**

A. Boiler #6 is licensed to fire #6 fuel oil and natural gas. [06-096 C.M.R. ch. 140, BPT]

B. Emission Limits
(Emission limits are on a 1-hour block average basis unless otherwise stated.)

1. Emissions from Boiler #6 shall not exceed the following limits:

Pollutant	Fuel	tpy	Origin and Authority
NO_x	any	86.6	06-096 C.M.R. ch. 140, BPT (A-448-70-A-A/I, 4/20/2004) **Enforceable by State-only**

2. Emissions from Boiler #6 shall not exceed the following limits:

Pollutant	Fuel	ppmdv	Origin and Authority
CO	#6 fuel oil	130 @ 3% O_2 See Note 1	40 C.F.R. Part 63, Subpart DDDDD, Table 2, Rows 15(a)

Note 1: Pursuant to 40 C.F.R. § 63.7500(f), this limit applies at all operating times except periods of startup and shutdown.

3. Emissions from Boiler #6 shall not exceed the following limits:

Pollutant	Fuel	lb/MMBtu	Origin and Authority
PM	natural gas	0.02	06-096 C.M.R. ch. 115, BACT (A-448-72-K-A/R, 8/23/1995)
	#6 fuel oil	0.15	06-096 C.M.R. ch. 115, BACT (A-448-72-K-A/R, 8/23/1995)
		5.9×10^{-2} See Note 1	40 C.F.R. Part 63, Subpart DDDDD, Table 2, Row 15(b)
PM_{10}	natural gas	0.02	06-096 C.M.R. ch. 115, BACT (A-448-72-K-A/R, 8/23/1995)
	#6 fuel oil	0.15	06-096 C.M.R. ch. 115, BACT (A-448-72-K-A/R, 8/23/1995)
SO_2	natural gas	0.01	06-096 C.M.R. ch. 115, BACT (A-448-72-K-A/R, 8/23/1995)
	#6 fuel oil	0.73	06-096 C.M.R. ch. 115, BACT (A-448-72-K-A/R, 8/23/1995)
NO_x	natural gas	0.15	06-096 C.M.R. ch. 115, BACT (A-448-72-K-A/R, 8/23/1995)
	#6 fuel oil	0.47	06-096 C.M.R. ch. 115, BACT (A-448-72-K-A/R, 8/23/1995)
CO	natural gas	0.17	06-096 C.M.R. ch. 115, BACT (A-448-72-K-A/R, 8/23/1995)
	#6 fuel oil	0.17	06-096 C.M.R. ch. 115, BACT (A-448-72-K-A/R, 8/23/1995)
VOC	natural gas	0.01	06-096 C.M.R. ch. 115, BACT (A-448-72-K-A/R, 8/23/1995)
	#6 fuel oil	0.01	06-096 C.M.R. ch. 115, BACT (A-448-72-K-A/R, 8/23/1995)
HCl	#6 fuel oil	1.1×10^{-3} See Note 1	40 C.F.R. Part 63, Subpart DDDDD, Table 2, Row 14(a)
Hg	#6 fuel oil	7.3×10^{-7} See Note 1	40 C.F.R. Part 63, Subpart DDDDD, Table 2, Row 14(b)

Note 1: Pursuant to 40 C.F.R. § 63.7500(f), this limit applies at all operating times except periods of startup and shutdown.

4. Emissions from Boiler #6 shall not exceed the following limits:

Pollutant	Fuel	lb/hr	Origin and Authority
PM	natural gas	1.9	06-096 C.M.R. ch. 115, BACT (A-448-72-K-A/R, 8/23/1995)
	#6 fuel oil	14.5	06-096 C.M.R. ch. 115, BACT (A-448-72-K-A/R, 8/23/1995)
PM_{10}	natural gas	1.9	06-096 C.M.R. ch. 115, BACT (A-448-72-K-A/R, 8/23/1995)
	#6 fuel oil	14.5	06-096 C.M.R. ch. 115, BACT (A-448-72-K-A/R, 8/23/1995)
$PM_{2.5}$	natural gas	1.9	06-096 C.M.R. ch. 140, BPT **Enforceable by State-only**
	#6 fuel oil	14.5	06-096 C.M.R. ch. 140, BPT **Enforceable by State-only**
SO_2	natural gas	1.0	06-096 C.M.R. ch. 115, BACT (A-448-72-K-A/R, 8/23/1995)
	#6 fuel oil	50.8	06-096 C.M.R. ch. 140, BPT
NO_x	natural gas	14.5	06-096 C.M.R. ch. 115, BACT (A-448-72-K-A/R, 8/23/1995)
	#6 fuel oil	45.5	06-096 C.M.R. ch. 115, BACT (A-448-72-K-A/R, 8/23/1995)
CO	natural gas	16.5	06-096 C.M.R. ch. 115, BACT (A-448-72-K-A/R, 8/23/1995)
	#6 fuel oil	16.5	06-096 C.M.R. ch. 115, BACT (A-448-72-K-A/R, 8/23/1995)
VOC	natural gas	1.0	06-096 C.M.R. ch. 115, BACT (A-448-72-K-A/R, 8/23/1995)
	#6 fuel oil	1.0	06-096 C.M.R. ch. 115, BACT (A-448-72-K-A/R, 8/23/1995)

C. Compliance Methods

Compliance with the emission limits listed above shall be demonstrated in accordance with the following methods and frequencies, or other methods and frequencies as approved by the Department [06-096 C.M.R. ch. 140]:

Pollutant	Applicable Emission Limits	Compliance Method	Frequency
PM	lb/MMBtu	Performance testing in accordance with 40 C.F.R. Part 60, App. A, Method 5	In accordance with 40 C.F.R. Part 63, Subpart DDDDD or as requested See Note 1
	lb/hr		
$PM_{10}/PM_{2.5}$	lb/MMBtu	Performance testing in accordance with 40 C.F.R. Part 51, App. M, Methods 201 or 201A and Method 202	As requested
	lb/hr		
SO_2	lb/MMBtu	Performance testing in accordance with 40 C.F.R. Part 60, App. A, Method 6	As requested
	lb/hr		
NO_x	lb/MMBtu	Performance testing in accordance with 40 C.F.R. Part 60, App. A, Method 7E	As requested See Note 1
	lb/hr		
	tpy	Recordkeeping See Note 2	See Note 2
CO	ppmdv	Performance testing in accordance with 40 C.F.R. Part 60, App. A, Method 10	In accordance with 40 C.F.R. Part 63, Subpart DDDDD
	lb/MMBtu		As requested
	lb/hr		
VOC	lb/MMBtu	Performance testing in accordance with 40 C.F.R. Part 60, App. A, Method 25 or 25A	As requested
	lb/hr		
HCl	lb/MMBtu	Either performance testing or fuel analysis in accordance with 40 C.F.R. Part 63, Subpart DDDDD	In accordance with 40 C.F.R. Part 63, Subpart DDDDD
Hg	lb/MMBtu		
Visible Emissions	% opacity	Performance testing in accordance with 40 C.F.R. Part 60, App. A, Method 9	As requested

Note 1: If Pioneer combusts more than 1,690,000 gallons of #6 fuel oil in Boiler #6 in any calendar year (equivalent to a 30% capacity factor), a performance test for PM and NO_x shall be conducted by July 1 of the following year. [06-096 C.M.R. ch. 138

(A-448-71-O-M, 3/10/1997) and 06-096 C.M.R. 140, BPT (A-448-70-D-R/A, 12/30/2015)]

Note 2: Compliance with the annual NO_x limit of 86.6 tpy shall be demonstrated through records of all fuel use in Boiler #6 on a monthly and 12-month rolling total basis. Calculations of NO_x emissions shall be performed at least once annually. Additional calculation of emissions to demonstrate compliance with this limit shall be performed upon request by the Department.

D. Periodic Monitoring

Pioneer shall record data and maintain records for the following periodic monitoring values for Boiler #6.

1. Hours of operation for Boiler #6 on a monthly and calendar year basis. [06-096 C.M.R ch. 137]
2. Types and amounts of each fuel fired on a monthly basis; [06-096 C.M.R. chs. 137 and 115 (BACT) and 40 C.F.R. § 63.7555(d)(1)]
3. Sulfur content (% by weight) of all #6 fuel oil fired; [06-096 C.M.R. ch. 137]
4. Recordkeeping in accordance with the requirements of 40 C.F.R. Part 63, Subpart DDDDD.

E. 40 C.F.R. Part 63

Pioneer shall comply with all applicable requirements for Boiler #6 in the most current version of 40 C.F.R. Part 63, Subpart DDDDD. Requirements for this regulation are addressed in Condition (35)(A).

(16) **Boiler #5/TO**

A. Boiler #5/TO is license to fire #6 fuel oil and natural gas. [06-096 C.M.R. ch. 140, BPT]

B. NO_x RACT

Pioneer shall perform annual internal inspections of the ductwork that delivers emissions to Boiler #5/TO, as well as the burner components in Boiler #5/TO in order to maintain good combustion efficiency. Records of these inspections shall be maintained for at least six years and be made available to the Department upon request. [06-096 C.M.R. ch. 138 (A-448-71-O-M, 3/10/1997)]

C. Emission Limits
(Emission limits are on a 1-hour block average basis unless otherwise stated.)

1. Emissions from Boiler #5/TO shall not exceed the following limits:

Pollutant	Fuel	tpy	Origin and Authority
CO	any	329.0	06-096 C.M.R. ch. 115, BACT (A-448-77-6-A, 2/12/2013)

2. Emissions from Boiler #5/TO shall not exceed the following limits:

Pollutant	Fuel	lb/MMBtu	Origin and Authority
PM	natural gas	0.05	06-096 C.M.R. ch. 140, BPT
	#6 fuel oil	0.20	06-096 C.M.R. ch. 103, § 2(A)(1)

3. Emissions from Boiler #5/TO shall not exceed the following limits:

Pollutant	Fuel	lb/hr	Origin and Authority
PM	natural gas	2.5	06-096 C.M.R. ch. 140, BPT **Enforceable by State-only**
	#6 fuel oil	7.90	06-096 C.M.R. ch. 140, BPT **Enforceable by State-only**
PM_{10}	natural gas	2.5	06-096 C.M.R. ch. 140, BPT **Enforceable by State-only**
	#6 fuel oil	7.90	06-096 C.M.R. ch. 140, BPT **Enforceable by State-only**
$PM_{2.5}$	natural gas	2.50	06-096 C.M.R. ch. 140, BPT **Enforceable by State-only**
	#6 fuel oil	7.90	06-096 C.M.R. ch. 140, BPT **Enforceable by State-only**
SO_2	natural gas	0.1	06-096 C.M.R. ch. 140, BPT **Enforceable by State-only**
	#6 fuel oil	20.75	06-096 C.M.R. ch. 140, BPT **Enforceable by State-only**
NO_x	natural gas	5.0	06-096 C.M.R. ch. 140, BPT **Enforceable by State-only**
	#6 fuel oil	23.7	06-096 C.M.R. ch. 138, NO_x RACT (A-448-72-K-A/R, 8/23/1995)

Pollutant	Fuel	lb/hr	Origin and Authority
CO	natural gas	4.2 See Note 1	06-096 C.M.R. ch. 140, BPT **Enforceable by State-only**
	#6 fuel oil	60.0 See Note 1	06-096 C.M.R. ch. 140, BPT (A-448-72-K-A/R, 8/23/1995) **Enforceable by State-only**
	natural gas or #6 fuel oil	135.3 See Note 2	06-096 C.M.R. ch. 140, BPT (A-448-77-6-A, 2/12/2013)
VOC	natural gas	0.3	06-096 C.M.R. ch. 140, BPT **Enforceable by State-only**
	#6 fuel oil	30.0	06-096 C.M.R. ch. 140, BPT (A-448-72-K-A/R, 8/23/1995) **Enforceable by State-only**

Note 1: Applies when Boiler #5/TO is operated as a boiler only.
Note 2: Applies when Boiler #5/TO is operated as both a boiler and a pollution control device.

D. Compliance Methods

1. Short-Term Emission Limits

Compliance with the short-term emission limits associated with Boiler #5/TO shall be demonstrated in accordance with the methods and frequencies indicated in the table below or other methods or frequencies as approved by the Department.

Pollutant	Applicable Emission Limits	Compliance Method	Frequency
PM	lb/MMBtu	Performance testing in accordance with 40 C.F.R. Part 60, App. A, Method 5	As requested See Note 1
	lb/hr		
$PM_{10}/PM_{2.5}$	lb/hr	Performance testing in accordance with 40 C.F.R. Part 51, App. M, Methods 201 or 201A and Method 202	As requested
SO_2	lb/hr	Performance testing in accordance with 40 C.F.R. Part 60, App. A, Method 6	As requested
NO_x	lb/hr	Performance testing in accordance with 40 C.F.R. Part 60, App. A, Method 7E	As requested See Note 1
CO	lb/hr	Performance testing in accordance with 40 C.F.R. Part 60, App. A, Method 10	As requested
VOC	lb/hr	Performance testing in accordance with 40 C.F.R. Part 60, App. A, Method 25 or 25A	As requested

Pollutant	Applicable Emission Limits	Compliance Method	Frequency
Visible Emissions	% opacity	Performance testing in accordance with 40 C.F.R. Part 60, App. A, Method 9	As requested

Note 1: If Pioneer combusts more than 692,000 gallons of #6 fuel oil in Boiler #5/TO in any calendar year (equivalent to a 30% capacity factor), a performance test for PM and NO_x shall be conducted by July 1 of the following year. [06-096 C.M.R. 140, BPT (A-448-70-D-R/A, 12/30/2015)] **Enforceable by State-only**

2. Annual Emission Limits

Compliance with the annual CO limit of 329.0 tpy shall be demonstrated as described below.

a. Pioneer shall monitor Impregnator P5 minutes of operation monthly. Impregnator P5 minutes of operation shall be documented through both paper log sheets that the machine operators complete each day and in minute-by-minute data recorded in the facility's computer database system. [06-096 C.M.R. ch. 115, BACT (A-448-77-6-A, 2/12/2013)]

b. When Impregnator P5 is controlled by Boiler #5/TO and Boiler #5/TO is firing #6 fuel oil, Pioneer shall calculate CO emissions on a monthly and 12-month rolling total using the test data of 135.3 lbs/hr CO. Pioneer shall calculate CO emissions by multiplying the lb/hr emission rate by the number of hours of operation [06-096 C.M.R. ch. 115, BACT (A-448-77-6-A, 2/12/2013)]

c. When Boiler #5/TO is firing #6 fuel oil and not being used to control Impregnator P5, Pioneer will calculate CO emissions on a monthly and 12-month rolling total using the CO emission rate of 15.7 lb/hr. Pioneer shall calculate CO emissions by multiplying the license lb/hr emission rate by the number of hours of operation. [06-096 C.M.R. ch. 115, BACT (A-448-77-6-A, 2/12/2013)]

d. When firing natural gas, Pioneer shall calculate CO emissions on a monthly and 12-month rolling total basis using the following emission rates for each operating scenario:

Emission Unit Combination	Average CO Emission Rate (lb/hr) while Burning Natural Gas
Specialty Resins only	0.60
Specialty Resins + P9	12.5
Impregnator P5 only	13.3
Specialty Resins + P5	15.7
Specialty Resins + P5 + P9	17.5
Specialty Resins + P4 + P5	32.9
Specialty Resins + C4 + P5	42.0
Specialty Resins + C4 + P4 + P5 + P9	78.4

Pioneer shall calculate the CO emissions from Boiler #5/TO by multiplying the above lb/hr emission rate by the number of hours of operation, depending on the operating scenario. The minutes of operation for Impregnators P4, P5, and P9 as well as Coater C4 shall be documented through both paper log sheets that the machine operators complete each day, and in minute-by-minute data recorded in the facility's computer database system. Operations of the Specialty Resins operations (K1 – K8) shall be recorded in paper batch logs that are written by the reactor operators, and the Specialty Resins Department's diverter damper position (vented to Thermal Oxidizer or vented to atmosphere) shall be recorded every 15 minutes in the Citect computer database system. [06-096 C.M.R. ch. 115, BACT (A-448-77-12-M, 5/28/2019)]

E. Periodic Monitoring

Pioneer shall record data and maintain records for the following periodic monitoring values for Boiler #5/TO. Other monitoring and recordkeeping requirements may be required by regulations addressed elsewhere in this license.

1. Hours of operation for Boiler #5/TO on a monthly and calendar year basis. [06-096 C.M.R ch. 137]
2. Types and amounts of each fuel fired on a monthly basis; [06-096 C.M.R. chs. 137] and
3. Sulfur content (% by weight) of all #6 fuel oil fired. [06-096 C.M.R. ch. 137]

F. 40 C.F.R. Part 63

Boiler #5/TO is used as a control device, for 40 C.F.R. Part 63, Subparts OOO, EEEE, and FFFF. Pioneer shall comply with all applicable requirements for Boiler #5/TO in

the most current version of those rules. Requirements for these regulations are addressed in Conditions (35)(B), (C), and (D).

(17) **Stack #1 Visible Emissions**

A. During periods of time when only natural gas is being fired in the boilers exhausting to Stack #1, visible emissions shall not exceed 10% opacity on a six-minute block average basis.

B. During periods of time when #6 fuel oil is being fired in any boiler exhausting to Stack #1, visible emissions shall not exceed 20% opacity on a six-minute block average basis.

[06-096 C.M.R. ch. 101, §§ 4(A)(1), 4(A)(3), and 4(D)]

(18) **Residual Fuel Sulfur Content**

A. The #6 fuel oil fired at the facility shall have a maximum sulfur content of 0.5% by weight except that any residual fuel purchased and delivered to the facility prior to July 1, 2018, may be used until depleted. [38 M.R.S. §§ 603-A(2)(A)(1) and (2)]

B. Sulfur content compliance shall be demonstrated by fuel records showing the quantity, type, and the percent sulfur of the fuel delivered. Fuel sulfur content compliance shall be demonstrated by fuel delivery receipts from the supplier, fuel supplier certification, certificate of analysis, or testing of fuel in the tank on-site. [06-096 C.M.R. ch. 140, BPT]

(19) **Process Heater #8**

A. Process Heater #8 is licensed to fire natural gas. [06-096 C.M.R. ch. 140, BPT]

B. Emission Limits
(Emission limits are on a 1-hour block average basis unless otherwise stated.)

1. Emissions from Process Heater #8 shall not exceed the following limits:

Pollutant	lb/MMBtu	Origin and Authority
PM	0.05	06-096 C.M.R. ch. 140, BPT

2. Emissions from Process Heater #8 shall not exceed the following limits:

Pollutant	lb/hr	Origin and Authority
PM	0.25	06-096 C.M.R. ch. 140, BPT **Enforceable by State-only**
PM_{10}	0.25	
$PM_{2.5}$	0.25	
NO_x	0.49	
CO	0.41	
VOC	0.03	

C. Visible emissions from Process Heater #8 shall not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 4(A)(3)]

D. Compliance Methods

Compliance with the emission limits associated with the Process Heater #8 shall be demonstrated in accordance with the appropriate test methods upon request of the Department. [06-096 C.M.R. ch. 140, BPT]

E. Periodic Monitoring

Pioneer shall record data and maintain records for the following periodic monitoring values for Process Heater #8.

1. Hours the unit was active or operating on a monthly and calendar year basis; [06-096 C.M.R ch. 137]
2. Types and amounts of each fuel fired on a monthly basis; [06-096 C.M.R. ch. 137] and
3. Recordkeeping in accordance with the requirements of 40 C.F.R. Part 63, Subpart DDDDD.

F. 40 C.F.R. Part 63

Pioneer shall comply with all applicable requirements for Process Heater #8 in the most current version of 40 C.F.R. Part 63, Subpart DDDDD. Requirements for this regulation are addressed in Condition (35)(A).

(20) **Thermal Oil Heater #1**

A. Thermal Oil Heater #1 is licensed to fire natural gas. [06-096 C.M.R. ch. 115, BACT (A-448-77-9-A, 7/21/2017)]

B. Emission Limits
(Emission limits are on a 1-hour block average basis unless otherwise stated.)

Emissions from Thermal Oil Heater #1 shall not exceed the following limits:

Pollutant	lb/hr	Origin and Authority
PM	0.02	06-096 C.M.R. ch. 115, BACT (A-448-77-9-A, 7/21/2017)
PM_{10}	0.02	
$PM_{2.5}$	0.02	
NO_x	0.25	
CO	0.21	
VOC	0.01	

C. Visible emissions from Stack #4 shall not exceed 10% opacity on a six-minute block average basis. [A-448-77-9-A, 7/21/2017)]

D. Compliance Methods

Compliance with the emission limits associated with Thermal Oil Heater #1 shall be demonstrated in accordance with the appropriate test methods upon request of the Department. [06-096 C.M.R. ch. 140, BPT]

E. Periodic Monitoring

Pioneer shall record data and maintain records for the following periodic monitoring values for Thermal Oil Heater #1.

1. Hours each unit was active or operating on a monthly and calendar year basis; [06-096 C.M.R ch. 137]
2. Types and amounts of each fuel fired on a monthly basis; [06-096 C.M.R. ch. 137 and 06-096 C.M.R. ch. 115, BACT (A-488-77-9-A, 7/21/2017)] and
3. Recordkeeping in accordance with the requirements of 40 C.F.R. Part 63, Subpart DDDDD.

F. 40 C.F.R. Part 63

Pioneer shall comply with all applicable requirements for Thermal Oil Heater #1 in the most current version of 40 C.F.R. Part 63, Subpart DDDDD. Requirements for this regulation are addressed in Condition (35)(A).

(21) **RTO #1**

A. RTO #1 is licensed to fire natural gas. [06-096 C.M.R. ch. 115, BACT (A-448-77-8-A, 5/1/2014)]

B. Emission Limits
(Emission limits are on a 1-hour block average basis unless otherwise stated.)

Emissions from RTO #1 shall not exceed the following limits:

Pollutant	lb/hr	Origin and Authority
PM	0.08	06-096 C.M.R. ch. 140, BPT (A-448-70-D-R/A, 12/30/2015) **Enforceable by State-only**
PM_{10}	0.08	
$PM_{2.5}$	0.08	
SO_2	0.01	
NO_x	0.22	
CO	0.12	

C. Visible emissions from RTO #1 shall not exceed 10% opacity on a six-minute block average basis. [A-448-77-8-A, 5/1/2014)]

D. Compliance Methods

Compliance with the emission limits associated with the combustion of natural gas in RTO #1 shall be demonstrated in accordance with the appropriate test methods upon request of the Department. [06-096 C.M.R. ch. 140, BPT]

E. Periodic Monitoring

Pioneer shall record data and maintain records for the following periodic monitoring values for RTO #1. Other monitoring and recordkeeping requirements may be required by regulations addressed elsewhere in this license.

1. Hours of operation for RTO #1 on a monthly and calendar year basis; and [06-096 C.M.R ch. 137]
2. Amount of fuel fired on a monthly basis. [06-096 C.M.R. chs. 137]

F. 40 C.F.R. Part 63

RTO #1 is used as a control device, for 40 C.F.R. Part 63, Subparts OOO, EEEE, and FFFF. Pioneer shall comply with all applicable requirements for RTO #1 in the most current version of those rules. Requirements for these regulations are addressed in Conditions (35)(B), (C), and (D).

(22) **Reactors**

A. Visible emissions from Reactors K1 – K8 shall each not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 4(B)(4))]

B. Emissions of particulate matter from Reactors K1 – K8 shall each not exceed the applicable limit in *General Process Source Particulate Emission Standard*, 06-096 C.M.R. ch. 105, § 3. Compliance shall be demonstrated through performance testing conducted upon request by the Department.

C. VOC RACT

1. At all times that Reactor K3 is producing urea resins or blending phenolic resins, Pioneer shall vent the emissions from the main outlet vent on Reactor K3 through a condenser.

   a. The temperature of the coolant on the inlet side of Reactor K3 condenser shall be maintained below 100 °F while the reactor is in operation and using this control method.

   b. During all operating times where the condenser is used, Pioneer shall monitor and record the temperature of the coolant on the inlet side of the condenser at least once every six hours.

   [06-096 C.M.R. ch. 134 (A-448-71-P-A, 6/16/1997)]

2. At all times that Reactor K3 is using methanol or another VOC/HAP to blend the phenolic extender, rather than acetone, Pioneer shall vent emissions to RTO #1 or Boiler #5/TO. The control device shall be operated to achieve a minimum VOC/HAP destruction efficiency of 95%. [06-096 C.M.R. ch. 115, BACT (A-448-71-T-A, 1/22/2003)]

3. Operating Scenarios

   Pioneer is licensed to operate Reactor K3 and associated paper impregnating and treating operations under the following four operating scenarios.

   Operating Scenario 1: Blend the phenolic extender with acetone and resins, on-site, in Reactor K3.

   Operating Scenario 2: Blend the phenolic extender with methanol and resins, on-site, in Reactor K3.

Operating Scenario 3: Purchase from an external supplier a phenolic extender/phenolic resin blend and a urea-formaldehyde resin/phenolic extender that includes methanol in the phenolic extender blend.

Operating Scenario 4: Use phenolic resins that will not require addition of the phenolic extender/solvent solution.

Pioneer shall maintain chemical use records documenting compliance with these flexible operating scenarios.

[06-096 C.M.R. ch. 115, BACT (A-448-71-T-A, 1/22/2003]

4. Pioneer shall calculate and document VOC emissions on a monthly basis for Reactor K3 and the associated paper impregnating and treating operations to demonstrate that the VOC emissions from Operating Scenarios 2 and 3 do not exceed 30 tpy[5]. Calculations shall be based on the following assumptions:

   a. Zero emissions of VOC from Operating Scenario 1 (because acetone is neither a VOC nor a HAP);
   b. Operating Scenarios 2 and 3 calculations will track VOC emissions of only methanol (because the scenarios are the blending of phenolic extender material with methanol);
   c. Operating Scenario 4 represents an activity addressed elsewhere in the license (coating with phenolic resins);
   d. 100% volatilization of methanol;
   e. 100% capture of methanol emissions from both Reactor K3 and from the permanent total enclosures around the paper Impregnators P4 and P5 and Coater C4 where the phenolic coating will be applied; and
   f. 95% destruction of VOC/HAP in RTO #1 or Boiler #5/TO.

   [06-096 C.M.R. ch. 115, BACT (A-448-71-T-A, 1/22/2003)]

5. Pioneer shall maintain records of the following for each specified operating scenario to document compliance with the 30 tpy VOC emission limit from Operating Scenarios 2 and 3.

   a. Operating Scenario 2 (blend phenolic extender with methanol onsite):

      (1) Monthly records of the amount of methanol used (lb);
      (2) 12-month rolling total of the amount of methanol used (lb);

[5] These requirements originate in Air Emission License A-448-71-T-A (issued 1/22/2003). A limit of 30 tpy of VOC was established to keep the modification minor.

(3) Monthly and 12-month rolling total of VOC emission calculations using the following formula:

$$VOC2 = \frac{(\text{pounds methanol}) * 5\%}{2000 \text{ lb/ton}} = \text{tons VOC}$$

b. Operating Scenario 3 (purchased phenolic extender/phenolic resin blend):

(1) Monthly records of the amount of purchased phenolic extender/phenolic resin blend purchased (lb) and the percent methanol by weight of the resin blend;
(2) 12-month rolling total of the amount of phenolic extender/phenolic resin blend purchased (lb);
(3) Monthly and 12-month rolling total of VOC emission calculations using the following formula:

$$VOC3 = \frac{(\text{pounds phenolic extender blend}) * (\%\text{ methanol}) * 5\%}{2000 \text{ lb/ton}} = \text{tons VOC}$$

[06-096 C.M.R. ch. 115, BACT (A-448-71-T-A, 1/22/2003)]

c. Operating Scenarios 2 and 3: Total VOC Emissions

The monthly and 12-month rolling total of VOC emissions in tpy for Operating Scenarios 2 and 3 combined shall be calculated using the following equation:

VOC flexible operating scenarios (tons) = VOC2 +VOC3 $\leq$ 30 tons VOC per year

[06-096 C.M.R. ch. 115, BACT (A-448-71-T-A, 1/22/2003)]

6. At all times that K4, K5, K6, K7, and/or K8 are producing polyester or polyamide resins, Pioneer shall vent the emissions from the main outlet vent on each reactor to Boiler #5/TO or RTO #1 for destruction. [06-096 C.M.R. ch. 134 (A-448-71-P-A, 6/16/1997 and 06-096 C.M.R. ch. 115, BACT (A-448-77-13-M, 3/9/2020)]

7. At all times that K4, K5, K6, K7, and/or K8 are blending polyester or polyamide resins, Pioneer shall vent the emissions from the main outlet vent on each reactor through the separating column and vapor condenser which shall be operated to maximize the condensation of any emissions. The temperature of the coolant on the inlet side of the vapor condensers to K4, K5, K6, K7, and/or K8 shall be maintained below 100 °F while the reactors are blending polyester or polyamide resins. Pioneer shall record the date and length of time in minutes when each reactor is blending

polyester or polyamide resins. [06-096 C.M.R. ch. 134 (A-448-71-P-A, 6/16/1997 and 06-096 C.M.R. ch. 115, BACT (A-448-77-13-M, 3/9/2020)]

D. 40 C.F.R. Part 63

Reactors K1 and K2 are subject to applicable requirements in 40 C.F.R. Part 63, Subpart OOO.

Reactor K3 is subject to applicable requirements in 40 C.F.R. Part 63, Subpart EEEE.

Reactors K4 – K8 are subject to applicable requirements in 40 C.F.R. Part 63, Subpart FFFF.

Pioneer shall comply with all applicable requirements for the reactors in the most current version of those rules, as applicable. Requirements for these regulations are addressed in Conditions (35)(B), (C), and (D).

(23) **Treaters, Impregnators, and Coater**

A. Controls and Inspections

1. Pioneer shall collect VOC emissions from any operation of Impregnators P4, P5, and P9 and/or Coater C4 by means of a certified Permanent Total Enclosure (PTE) capture system and vent the emissions to a thermal oxidizer (Boiler #5/TO) with a destruction efficiency of 98% or greater.

2. The PTE on Impregnators P4, P5, and P9 and Coater C4 shall have documented inspections semiannually. The inspection reports shall be submitted with the semiannual report required by this license.

3. Pioneer shall conduct an evaluation of the PTE capture systems on Impregnators P4, P5, and P9 and Coater C4 every two calendar years confirming that the system meets the applicable specifications in 06-096 C.M.R. ch. 126, Appendix A, Procedure T, for a PTE.

[06-096 C.M.R. ch. 140, BPT **Enforceable by State-only** for Impregnators P4 & P5; 06-096 C.M.R. ch. 115, BACT (A-448-77-1-A, 6/5/2007) for Impregnator P9]

B. Performance Tests

Concurrent with the PTE capture system evaluation (every two calendar years), Pioneer shall conduct performance testing on Boiler #5/TO to demonstrate compliance with the destruction efficiency requirements. [06-096 C.M.R. ch. 115, BACT (A-448-77-1-A, 6/5/2007)]

C. Recordkeeping

Pioneer shall keep records of all operating hours for Impregnators P4, P5, and P9 and Coater C4. [06-096 C.M.R. ch. 140, BPT] **Enforceable by State-only**

D. 06-096 C.M.R. ch. 123

The treaters, impregnators, and coater are subject to the requirements of *Control of Volatile Organic Compounds from Paper, Film and Foil Coating Operations*, 06-096 C.M.R. ch. 123, when applying resins or coatings to paper, film, or foil.

1. Emission Limits

a. Treaters M1, M4, M5, and M7 shall only use coatings with a VOC content of 2.9 lbs of VOC per gallon or less (excluding water). [06-096 C.M.R. ch. 123, § 3(A)]

b. During all operating times, emissions from Impregnators P4, P5, and P9 and Coater C4 shall be controlled by Boiler #5/TO such that the overall efficiency of the abatement equipment (i.e., the efficiency of the capture system multiplied by the efficiency of the control device) reduces VOC emissions by at least 95% or to an emission rate of 4.8 lbs VOC per gallon of solids applied or less, whichever is less stringent. Compliance shall be demonstrated through performance testing conducted upon request by the Department. When conducting performance testing pursuant to 40 C.F.R. Part 60, Appendix A, Method 25, the averaging period shall be three hours. [06-096 C.M.R. ch. 123, § 3(B)]

2. Work Practices

Pioneer shall use the following work practices:

a. New and used coating or cleaning solvent containing greater than 2.9 lbs VOC/gallon, including a coating mixed on the premises, shall be stored in non-absorbent, non-leaking containers. Such containers shall be kept closed at all times except when the container is being filled, emptied, or is otherwise actively in use.

b. Spills and leaks of VOC-containing coating or cleaning solvent shall be minimized. Any leaked or spilled VOC-containing coating or cleaning solvent shall be immediately absorbed and removed or disposed of.

c. Absorbent applicators, such as cloth and paper, which are moistened with coating or cleaning solvent containing greater than 2.9 lbs VOC/gallon, shall be stored in a closed, non-absorbent, non-leaking container for disposal or recycling.

d. Coating or cleaning solvent containing greater than 2.9 lbs VOC/gallon shall be conveyed from one location to another in a closed container or pipe.

e. Cleaning shall be performed to minimize associated VOC emissions.

[06-096 C.M.R. ch. 123, § 4]

3. Monitoring

Whenever Boiler #5/TO is being operated to control emissions from the impregnators or Coater C4, Pioneer shall continuously monitor and record the unit's exhaust gas temperature (°F). [06-096 C.M.R. ch. 123, § 7(B)]

4. Recordkeeping

Pioneer shall record data and maintain records of the following:

a. Exhaust gas temperature (°F) monitored and recorded continuously when operating Boiler #5/TO as a control device for the impregnators or Coater C4; [06-096 C.M.R. ch. 123, § 7(B)]

b. For each coating:
(1) Supplier name
(2) Name of coating
(3) Identification number of coating
(4) Coating density (lb/gal)
(5) Total VOC content as supplied (wt %)
(6) Water content of coating as supplied (wt %)
(7) Exempt VOC content (described in the rule) of coating as supplied (wt %)
(8) Solids content of coating as supplied (vol %)
(9) Diluent ratio (gal diluent/gal coating)
[06-096 C.M.R. ch. 123, § 6(B)]

c. For each diluent:
(1) Name of diluent
(2) Identification number of diluent
(3) Diluent density (lb/gal)
[06-096 C.M.R. ch. 123 § 6(B)]

d. The following records on a daily basis:
(1) Coating line number
(2) Time period coating was applied
(3) Coating identification number
(4) Amount of coating used
(5) Diluent identification number
(6) Amount of diluent used
[06-096 C.M.R. ch. 123, § 6(C)]

E. VOC RACT

1. When engaging in cleanup activities on Treaters M1, M4, M5, and M7, Pioneer shall limit the VOC content of the cleaning solutions to 50% or less by volume, except for the use of 500 pounds of cleaning solutions per year which may contain greater than 50% VOC by volume.

2. Pioneer shall keep records of the VOC emissions per year from cleanup activities on the treaters as well as records of the pounds per year of cleaning solutions which were used with a VOC content greater than 50% by volume.

[06-096 C.M.R. ch. 134 (A-448-71-P-A, 6/16/1997)]

F. 40 C.F.R. Part 60, Subpart VVV

1. Pioneer shall make and record semiannual estimates of the projected annual amount of VOC to be used for the manufacture of polymeric coated substrate at the affected coating operation in that year and shall maintain records of actual 12-month VOC use. [40 C.F.R. §§ 60.744(b) and 60.747(c)]

2. Pioneer shall report the first semiannual estimate in which projected annual VOC use exceeds the applicable cutoff; and report the first 12-month period in which the actual VOC use exceeds the applicable cutoff. [40 C.F.R. § 60.747(c)]

G. 40 C.F.R. Part 63, Subpart OOOO

The treaters, impregnators, and Coater C4 are subject to applicable requirements in 40 C.F.R. Part 63, Subpart OOOO. Pioneer shall comply with all applicable requirements for the treaters, impregnators, and Coater C4 in the most current version of that rule. Requirements for this regulation is addressed in Condition (35)(G).

(24) **Combined VOC Emission Limit**

A. Total VOC emissions from the following equipment (combined) shall not exceed 123.2 tpy on a 12-month rolling total basis:

1. CPL Line #1;
2. Tanks #70 and #71;
3. Thermal Oil Heater #1;
4. Reactors K1, K2, and K3;
5. Impregnators P4, P5, and P9;
6. Treaters M1, M4, M5, and M7;
7. Laminate Press 1; and
8. Tank #67.

B. Pioneer shall calculate and keep records of VOC emissions from this equipment on a monthly and 12-month rolling total basis.

[06-096 C.M.R. ch. 115, BACT (A-448-77-9-A, 7/21/2017)]

(25) **Pressroom**

Visible emissions from the pressroom vents shall not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 4(B)(4)]

(26) **CPL Line #1**

A. Visible emissions from the press section of CPL Line #1 shall not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BACT (A-448-77-10-M, 3/16/2018)]

B. Pioneer shall use CPL Line #1 Collector to control PM emissions from the in-line sanding operations on CPL Line #1. CPL Line #1 Collector shall meet a minimum control efficiency of 99%. Compliance shall be demonstrated by the recordkeeping requirements outlined below and emissions testing performed on request by the Department. [06-096 C.M.R. ch. 115, BACT (A-448-77-10-M, 3/16/2018)]

C. Pioneer shall pneumatically convey the dust from the CPL Line #1 Collector to the outside dust collection bin. PM emissions from this dust collection system shall be controlled by the Camfil Farr Dust Collector. The Camfil Farr Dust Collector shall meet a minimum control efficiency of 99%. Compliance shall be demonstrated by the recordkeeping requirements outlined below and emissions testing performed on request by the Department. [06-096 C.M.R. ch. 115, BACT (A-448-77-10-M, 3/16/2018)]

D. Pioneer shall inspect the CPL Line #1 Collector and Camfil Farr Dust Collector monthly for leaks and shall keep records of these inspections as well as any maintenance (planned or unplanned) performed including filter replacements. [06-096 C.M.R. ch. 115, BACT (A-448-77-10-M, 3/16/2018)]

E. Visible emissions from the CPL Line #1 Collector and Camfil Farr Dust Collector shall each not exceed 10% opacity on a six-minute block average basis. Upon request by the Department, Pioneer shall demonstrate compliance with observations performed by someone certified in EPA Method 9. [06-096 C.M.R. ch. 115, BACT (A-448-77-10-M, 3/16/2018)]

F. Periodic Monitors

Pioneer shall operate, record data, and maintain records from the following periodic monitors for CPL Line #1.

1. Hours the equipment was active or operating on a monthly and calendar year basis. [06-096 C.M.R ch. 137]
2. Estimated emissions of VOC and HAP on a calendar year basis. [06-096 C.M.R. ch. 137]
3. Records of any maintenance activities performed (planned or unplanned) on the CPL Line #1 Collector and Camfil Farr Dust Collector. [06-096 C.M.R. ch. 115, BACT (A-448-77-10-M)]

G. Parameter Monitors

During all operating times, Pioneer shall operate, record data, and maintain records from the following parameter monitors for the CPL Line #1 Collector and the Camfil Farr Dust Collector (each) in accordance with Pioneer's approved CAM plan:

Parameter	Frequency
Cartridge filter pressure drop	Monitored: Continuously Recorded: Monthly
Visual inspections	Monitored: Daily Recorded: Daily

(27) **Digital Printers**

A. Emissions from the Digital Printers shall not exceed 8.3 tpy of VOC and 8.3 tpy of HAP on a 12-month rolling total basis. Compliance shall be demonstrated by the recordkeeping requirements of this license. [06-096 C.M.R. ch. 115, BACT (A-448-77-14-M, 4/27/2020)]

B. Pioneer shall maintain the following records:

1. Monthly records of the amount of each VOC/HAP-containing ink used in the Digital Printers.
2. Records of the VOC and HAP content for each ink used.
3. Monthly calculations demonstrating compliance with the VOC and HAP emission limits.

[06-096 C.M.R. ch. 115, BACT (A-448-77-14-M, 4/27/2020)]

(28) **Storage Tanks**

A. Pioneer shall maintain conservation vents on the following tanks:

Tank ID
Tank #29 – Methanol
Tank #30 – Formaldehyde
Tank #45 – Phenolic Resin/Blend
Tank #46 – Phenolic Resin/Blend
Tank #47 – Phenolic Resin/Blend
Tank #48 – Phenolic Fast Cure
Tank #49 – Phenolic Resin/Blend
Tank #60 – Phenolic Resin
Tank #66 – 1,6 Hexanediol

[06-096 C.M.R. ch. 134, (A-448-71-P-A, 6/16/1997)]

B. Pioneer shall maintain records of maintenance of the conservation vents, including the date of conservation vent inspections and all routine maintenance when performed. Conservation vent inspections shall be performed at least once every six months. [06-096 C.M.R. ch. 134, (A-448-71-P-A, 6/16/1997)]

C. Pioneer shall maintain records of the type and maximum true vapor pressure for each product stored in Tanks #29 and #30. [06-096 C.M.R. ch. 140, BPT]

D. Pioneer shall maintain records of the estimated emissions of VOC and HAP from the storage tanks on a calendar year basis. [06-096 C.M.R. ch. 137]

E. 40 C.F.R. Part 63

Tanks #27, #29, #45 - #49, and #60 are not subject to control requirements in 40 C.F.R. Part 63, Subpart EEEE pursuant to 40 C.F.R. § 63.2346(a) and Tables 2 and 2b. This equipment is subject only to the notification, recordkeeping, and reporting requirements of 40 C.F.R. § 63.2343

Pioneer shall comply with all applicable requirements for Tanks #27, #29, #45 - #49, and #60 in the most current version of Subpart EEEE. Requirements for this regulation is addressed in Condition (35)(C).

(29) **Chemical Loading/Unloading Operations**

Pioneer's chemical loading/unloading operations are subject only to the notification, recordkeeping, and reporting requirements of 40 C.F.R. Part 63, Subpart EEEE, § 63.2343.

Pioneer shall comply with all applicable requirements for the chemical loading/unloading operations in the most current version of Subpart EEEE. Requirements for this regulation is addressed in Condition (35)(C).

(30) **Storage Silos**

A. Visible emissions from each of the baghouses associated with the storage silos shall not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 4(B)(3)]

B. Particulate emissions from the storage silos and associated equipment shall be limited to the applicable limitation from Table 105A or the formula in Section 4 of *General Process Source Particulate Emission Standard*, 06-096 C.M.R. ch. 105. Compliance shall be demonstrated upon request by the Department.

C. Pioneer shall inspect the storage silos monthly and maintain records of those inspections and any maintenance activities performed (planned or unplanned). [06-096 C.M.R. ch. 140, BPT] **Enforceable by State-only**

(31) **Routers, Table Saws, and Sanders**

A. Visible emissions from each of the baghouses associated with the routers, table saws, and sanders shall not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 4(B)(3)]

B. Particulate emissions from the routers, table saws, and sanders and associated equipment shall be limited to the applicable limitation from Table 105A or the formula in Section 4 of *General Process Source Particulate Emission Standard*, 06-096 C.M.R. ch. 105. Compliance shall be demonstrated upon request by the Department.

C. Parameter Monitors

During all operating times, Pioneer shall operate, record data, and maintain records from the following parameter monitors for the baghouses associated with the routers, table saws, and sanders in accordance with Pioneer's approved CAM plan:

Parameter	Monitoring Frequency
Baghouse pressure drop	Monitored: Continuously Recorded: Weekly
Visual inspections	Monitored: Daily Recorded: Daily

(32) **Resin Crusher/Grinder**

A. Visible emissions from the baghouse associated with the resin crusher/grinder shall not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 4(B)(3)]

B. Particulate emissions from the resin crusher/grinder and associated equipment shall be limited to the applicable limitation from Table 105A or the formula in Section 4 of *General Process Source Particulate Emission Standard*, 06-096 C.M.R. ch. 105. Compliance shall be demonstrated upon request by the Department.

C. Periodic Monitoring

Pioneer shall inspect the resin crusher/grinder baghouse monthly and maintain records of those inspections and any maintenance activities performed (planned or unplanned). [06-096 C.M.R. ch. 140, BPT] **Enforceable by State-only**

(33) **Drillboard Press Plate Preparation**

Pioneer shall maintain records of the coating release aid usage and VOC content and include emissions from this process in the annual emissions report required by 06-096 C.M.R. ch. 137. [06-096 C.M.R. ch. 140, BPT] **Enforceable by State-only**

(34) **Stationary Engines**

A. Allowable Operation and Fuels

1. Generator #1 is licensed to fire natural gas. [06-096 C.M.R. ch. 140, BPT]
2. Generator #2 and Fire Pump #1 are licensed to fire distillate fuel. [06-096 C.M.R. ch. 140, BPT]

B. Fuel Sulfur Content

1. The fuel oil sulfur content for Generator #2 and Fire Pump #1 shall be limited to 0.0015% sulfur by weight. [06-096 C.M.R. ch. 140, BPT]
2. Fuel sulfur content compliance shall be demonstrated by fuel delivery receipts from the supplier, fuel supplier certification, certificate of analysis, or testing of fuel in the tank on-site. [06-096 C.M.R. ch. 140, BPT]

C. Emissions shall not exceed the following limits:

Generator #1			
Pollutant	**lb/hr**	**Origin and Authority**	**Enforceability**
PM	0.06	06-096 C.M.R. ch. 140, BPT (A-448-70-D-R/A, 12/30/2015)	**Enforceable by State-only**
PM_{10}	0.06	06-096 C.M.R. ch. 140, BPT (A-448-70-D-R/A, 12/30/2015)	**Enforceable by State-only**
$PM_{2.5}$	0.06	06-096 C.M.R. ch. 140, BPT	**Enforceable by State-only**
NO_x	2.57	06-096 C.M.R. ch. 140, BPT (A-448-70-D-R/A, 12/30/2015)	**Enforceable by State-only**
CO	3.97	06-096 C.M.R. ch. 140, BPT (A-448-70-D-R/A, 12/30/2015)	**Enforceable by State-only**
VOC	0.03	06-096 C.M.R. ch. 140, BPT (A-448-70-D-R/A, 12/30/2015)	**Enforceable by State-only**

Generator #2			
Pollutant	**lb/hr**	**Origin and Authority**	**Enforceability**
PM	0.14	06-096 C.M.R. ch. 140, BPT (A-448-70-D-R/A, 12/30/2015)	**Enforceable by State-only**
PM_{10}	0.14	06-096 C.M.R. ch. 140, BPT (A-448-70-D-R/A, 12/30/2015)	**Enforceable by State-only**
$PM_{2.5}$	0.14	06-096 C.M.R. ch. 140, BPT	**Enforceable by State-only**
NO_x	5.29	06-096 C.M.R. ch. 140, BPT (A-448-70-D-R/A, 12/30/2015)	**Enforceable by State-only**
CO	1.14	06-096 C.M.R. ch. 140, BPT	**Enforceable by State-only**
VOC	0.43	06-096 C.M.R. ch. 140, BPT	**Enforceable by State-only**

Fire Pump #1			
Pollutant	**lb/hr**	**Origin and Authority**	**Enforceability**
PM	0.25	06-096 C.M.R. ch. 140, BPT (A-448-70-A-A/I, 4/20/2004)	**Enforceable by State-only**
PM_{10}	0.25	06-096 C.M.R. ch. 140, BPT (A-448-70-A-A/I, 4/20/2004)	**Enforceable by State-only**
$PM_{2.5}$	0.25	06-096 C.M.R. ch. 140, BPT	**Enforceable by State-only**
NO_x	9.26	06-096 C.M.R. ch. 140, BPT (A-448-70-A-A/I, 4/20/2004)	**Enforceable by State-only**
CO	2.00	06-096 C.M.R. ch. 140, BPT	**Enforceable by State-only**
VOC	0.76	06-096 C.M.R. ch. 140, BPT	**Enforceable by State-only**

D. Visible Emissions

1. Visible emissions from Generator #1 shall not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 4(A)(4)]

2. Visible emissions from Generator #2 and Fire Pump #1 each shall not exceed 20% opacity on a six-minute block average basis except for periods of startup during which time Pioneer shall either meet the normal operating visible emissions standard or the following work practice standards and alternative visible emissions standard.

   a. The duration of the startup shall not exceed 30 minutes per event;
   b. Visible emissions shall not exceed 50% opacity on a six-minute block average basis; and
   c. Pioneer shall keep records of the date, time, and duration of each startup.

   Use of the work practice standards and alternative visible emissions standard in lieu of the normal operating standard is limited to no more than once per day.

   Note: This does not limit the engine to one startup per day. It only limits the use of the alternative emission standard to once per day.

   [06-096 C.M.R. ch. 101, § 4(A)(4)]

E. 40 C.F.R. Part 63

Pioneer shall comply with all applicable requirements for the stationary engines in the most current version of 40 C.F.R. Part 63, Subpart ZZZZ. Requirements for this regulation are addressed in Condition (35)(H).

(35) **National Emission Standards for Hazardous Air Pollutants**

A. 40 C.F.R. Part 63, Subpart DDDDD

Pioneer shall continuously comply with all applicable requirements of the most current version of *National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters,* 40 C.F.R. Part 63, Subpart DDDDD, including, but not limited to, those listed in this air emission license.

Boilers #4 and #6, Process Heater #8, and Thermal Oil Heater #1 are subject to applicable requirements in *National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters,* 40 C.F.R. Part 63, Subpart DDDDD, as described below.

1. Switching Subcategories

a. If Pioneer intends to fire #6 fuel oil in either Boiler #4 or Boiler #6 during a period of natural gas curtailment or supply interruption, the facility shall submit a notification of alternative fuel use to the Department and EPA within 48 hours of the declaration of each period of natural gas curtailment or supply interruption. The notification shall include the following information:

(1) Company name and address;
(2) Identification of the affected unit;
(3) Reason Pioneer is unable to use natural gas or equivalent fuel, including the date when natural gas curtailment was declared or the natural gas supply interruption began;
(4) Type of alternative fuel used; and
(5) Dates when the alternative fuel use is expected to begin and end.

[40 C.F.R. § 63.7545(f)]

b. Pioneer shall keep records of all periods of combustion of #6 fuel oil in Boilers #4 and #6 while in the "units designed to burn gas 1" subcategory including the amount (gallons) burned and the date, time, and duration of all oil firing. [40 C.F.R. § 70.6(c)(1)]

c. If either Boiler #4 or Boiler #6 switches fuels resulting in the applicability of a different subcategory, Pioneer shall provide notice to the Department and EPA of the date of the switch within 30 days of such occurrence. The notification shall identify:

(1) The name of the owner or operator of the affected source, the location of the source, the boiler(s) that have switched fuels, and the date of the notice;
(2) The currently applicable subcategory; and
(3) The date upon which the fuel switch occurred.

[40 C.F.R. §63.7545(h)]

d. If either Boiler #4 or Boiler #6 switches subcategories, Pioneer shall be in compliance with the applicable requirements of that subcategory on the effective date of the switch. [40 C.F.R. § 63.7495(h)]

e. If either Boiler #4 or Boiler #6 switches subcategories, Pioneer shall demonstrate compliance, as applicable, within 60 days of the effective date of the switch unless a compliance demonstration for the applicable subcategory had been demonstrated within the previous 12 months. [40 C.F.R. § 63.7510(k)]

2. Liquid Fuels Subcategory

Boilers #4 and #6 are subject to the following requirements when operating in the "units designed to burn heavy liquid fuel subcategory."

a. Emission Limits, Heavy Liquid Fuels Subcategory

Boilers #4 and #6 are subject to the following emission limits at all times except for periods of startup and shutdown, during which time Pioneer shall comply with the applicable work practice standards:

Pollutant	Emission Limit
PM (filterable)	5.9×10^{-2} lb/MMBtu
CO	130 ppm by volume on a dry basis corrected to 3% O_2, 3-run average
HCl	1.1×10^{-3} lb/MMBtu
Hg	7.3×10^{-7} lb/MMBtu

[40 C.F.R. §§ 63.7500(a)(1) and (f) and Table 2, Rows 14 and 15]

b. Operating Limits

Boilers #4 and #6 are subject to the following operating limits at all operating times except for periods of startup and shutdown, during which time Pioneer shall comply with the applicable work practice standards:

(1) The 30-day rolling average operating load shall not exceed 110% of the highest hourly average operating load recorded during the most recent successful performance stack test. [40 C.F.R. § 63.7500(a)(2) and Table 4, Row 7]
(2) For Boiler #4 only, the 30-day rolling average oxygen content shall be maintained at or above the lowest hourly average oxygen concentration measured during the most recent successful CO performance test. [40 C.F.R. § 63.7500(a)(2) and Table 4, Row 8]
(3) For Boiler #6 only, the oxygen trim system shall be operated with the oxygen level set no lower than the lowest hourly average oxygen concentration measured during the most recent CO performance test. [40 C.F.R. § 63.7525(a)(7)]

c. Performance Tests

Pioneer shall demonstrate compliance with the PM and CO emission limits through performance tests. Pioneer shall demonstrate compliance with the HCl and Hg emission limits through either performance tests or fuel analysis. Pioneer may elect to change the compliance method for HCl and Hg as allowed by Subpart DDDDD, and that flexibility is intended to be provided for in the following requirements.

(1) Except as provided in the next paragraph, Pioneer shall conduct performance stack tests for PM and CO annually. If electing to demonstrate compliance with HCl and/or Hg through performance testing, such tests shall be conducted annually. Annual performance tests must be completed no more than 13 months after the previous performance test. [40 C.F.R. § 63.7515(a)]

(2) If the performance tests for a given pollutant for at least 2 consecutive years show that emissions are at or below 75% of the emission limit for that pollutant, and there are no changes in the operation of the boiler or its associated air pollution control equipment that could increase emissions, Pioneer may elect to conduct performance tests for that pollutant every third year. The subsequent performance tests must be conducted no more than 37 months after the previous performance test. If a performance stack test shows emissions exceed 75% of the emission limit for a pollutant, Pioneer shall resume conducting annual performance stack testing for that pollutant

until all performance stack tests for that pollutant over a 2-year period are at or below 75% of the pollutant's emission limit. [40 C.F.R. §§ 63.7515(b) and (c)]

(3) Performance tests which are conducted shall be performed in accordance with requirements in Table 5. [40 C.F.R. § 63.7520(b)]

(4) Pioneer shall:

(i) Conduct performance tests at representative operating load conditions while burning the type of fuel or mixture of fuels that has the highest content of chlorine and mercury;
(ii) Demonstrate compliance and establish operating limits based on these performance tests; and
(iii) Comply with the operating limit for operating load conditions specified in Table 4 following each performance test and until the next performance test.
[40 C.F.R. § 63.7520(c)]

(5) Pioneer shall conduct a minimum of three separate test runs for each performance test required. [40 C.F.R. § 63.7520(d)]

(6) Pioneer shall use the methodology in § 63.7520(e) to convert measured concentrations to lb/MMBtu emission rates for compliance purposes. If the measured concentration is below the detection level of the method used, Pioneer shall use the method detection level as the measured emissions level for the pollutant in calculating compliance. [40 C.F.R. §§ 63.7520(e) and (f)]

d. Fuel Analysis

Pioneer shall demonstrate compliance with the HCl and Hg emission limits through either performance tests or fuel analysis. Pioneer has elected to use performance tests for these pollutants. However, Pioneer may elect to change the compliance method, and that flexibility is intended to be provided for in the following requirements.

If electing to demonstrate compliance with HCl and/or Hg emission limits through fuel analysis, Pioneer shall comply with the following:

(1) Pioneer shall conduct a monthly fuel analysis for HCl and/or Hg (as applicable) except as provided for in the next paragraph. Samples for monthly fuel analyses shall be taken no less than 14 calendar days apart unless multiple samples are taken per month. [40 C.F.R. § 63.7515(e)]

(2) If each of 12 consecutive monthly fuel analyses for a given pollutant demonstrates 75% or less of the compliance level for that pollutant, Pioneer may elect to decrease fuel analysis frequency for that pollutant to quarterly. If any quarterly sample exceeds 75% of the compliance level for a given pollutant, Pioneer shall return to monthly monitoring until 12 consecutive months of fuel analyses are again less than 75% of the compliance level. [40 C.F.R. § 63.7515(e)]

(3) Fuel analyses shall be performed in accordance with Table 6. The concentration of pollutants shall be determined in units of lb/MMBtu. [40 C.F.R. §§ 63.7521(a) & (e)]

(4) Fuel analysis is only required for fuel oil since it is the only type of fuel fired in the boilers subject to an emission limit in Tables 2 or 15. [40 C.F.R. § 63.7521(a)]

(5) Boilers #4 and #6 are not subject to the composite fuel sampling requirements contained in 40 C.F.R. §§ 63.7521(c) and (d) since both gaseous and liquid fuels are exempt pursuant to 40 C.F.R. § 63.7521(a).

(6) Pioneer shall develop a site-specific fuel monitoring plan according to the procedures and requirements of 40 C.F.R. §§ 63.7521(b)(1) and (2). [40 C.F.R. § 63.7521(b)]

e. Continuous Compliance and Monitoring Requirements

(1) Pioneer shall operate and maintain an oxygen analyzer system on Boilers #4 and #6 as defined in § 63.7575. The oxygen analyzer system is considered a CMS. [40 C.F.R. § 63.7525(a)]

(2) Pioneer shall install, operate, and maintain a CMS in order to demonstrate compliance with the operating load limit, the 30-day rolling average limit on oxygen content (Boiler #4 only), and the oxygen level limit (Boiler #6 only) in accordance with §§ 63.7525(d)(1) through (5). [40 C.F.R § 63.7525(d)]

(3) For each CMS, Pioneer shall develop a site-specific monitoring plan that addresses design, data collection, and the quality assurance and quality control elements outlined in 40 C.F.R. §§ 63.8(d) and 63.7505(d)(1)(i) through (iii). [40 C.F.R. § 63.7505(d)(1)]

(4) Pioneer shall monitor and collect CMS data according to 40 C.F.R. § 63.7535. [40 C.F.R. § 63.7535(a)]

(i) Pioneer shall operate the monitoring systems and collect data at all required intervals at all times that the boiler is operating and compliance is required, except for periods of monitoring system malfunctions or out-of-control periods, and required monitoring system quality assurance or control activities, including, as applicable, calibration checks, required zero and span adjustments, and scheduled CMS maintenance as defined in the facility's site-specific monitoring plan. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. Pioneer shall complete monitoring system repairs in response to monitoring system malfunctions or out-of-control periods and to return the monitoring system to operation as expeditiously as practicable. [40 C.F.R. § 63.7535(b)]

(ii) Pioneer may not use data recorded during periods of startup and shutdown, monitoring system malfunctions or out-of-control periods, repairs associated with monitoring system malfunctions or out-of-control periods, or required monitoring system quality assurance or control activities in data averages and calculations used to report emissions or operating levels. Pioneer shall record and make available upon request results of CMS performance audits and dates and duration of periods when the CMS is out of control to completion of the corrective actions necessary to return the CMS to operation consistent with the site-specific monitoring plan. Pioneer shall use all the data collected during all other periods in assessing compliance and the operation of the control device and associated control system. [40 C.F.R. § 63.7535(c)]

(iii) Except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities (including, as applicable, system accuracy audits, calibration checks, and required zero and span adjustments), failure to collect required data is a deviation of the monitoring requirements. In calculating monitoring results, no data shall be used that was collected during periods of startup and shutdown, when the monitoring system is out of control as specified in the site-specific monitoring plan, while conducting repairs associated with periods when the monitoring system is out of control, or while conducting required monitoring system quality assurance or quality

control activities. Pioneer shall calculate monitoring results using all other monitoring data collected while the process is operating. Pioneer shall report all periods when the monitoring system is out of control in the semi-annual report. [40 C.F.R. § 63.7535(d)]

(iv) Operation above the established maximum or below the established minimum operating limits shall constitute a deviation of established operating limits listed in Table 4 except during performance tests conducted to determine compliance with the emission limits or to establish new operating limits. Operating limits must be confirmed or reestablished during performance tests. [40 C.F.R. § 63.7540(a)(1)]

f. Recordkeeping

Pioneer shall maintain records in accordance with 40 C.F.R. Part 63, Subpart DDDDD including, but not limited to, the following:

(1) Copies of notifications and reports submitted to comply with the subpart along with any supporting documentation; [40 C.F.R. § 63.7555(a)(1)]
(2) Records of performance tests, fuel analyses, or other compliance demonstrations and performance evaluations; [40 C.F.R. § 63.7555(a)(2)]
(3) Records required by 40 C.F.R. Part 63, Subpart DDDDD, Table 8 including records of all monitoring data and calculated averages for applicable operating limits (including monthly fuel analyses, oxygen content, and boiler operating load) to show continuous compliance with each emission limit; [40 C.F.R. § 63.7555(c)]
(4) Monthly fuel use including the types and amounts of fuel fired; [40 C.F.R. § 63.7555(d)(1)]
(5) Copies of all calculations and supporting documentation of maximum chlorine and mercury fuel input or emission rates (as applicable) that were done to demonstrate continuous compliance with the HCl and Hg emission limits. [40 C.F.R. §§ 63.7555(d)(3) and (4)]
(6) If Pioneer elects to stack test less frequently than annually, records that document that the emissions in the previous stack test(s) were less than 75% of the applicable emission limit and documentation that there was no change in source operations including fuel composition and operation of air pollution control equipment that would cause emissions of the relevant pollutant to increase within the past year; [40 C.F.R. § 63.7555(d)(5)]
(7) Records of the occurrence and duration of each malfunction of the boilers or of the associated air pollution control and monitoring equipment; [40 C.F.R. § 63.7555(d)(6)]
(8) Records of actions taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions in § 63.7500(a)(3), including corrective actions to restore the malfunctioning

boiler, air pollution control, or monitoring equipment to its normal or usual manner of operation; and [40 C.F.R. § 63.7555(d)(7)]

(9) Records of the calendar date, time, occurrence, and duration of each startup and shutdown. [40 C.F.R. § 63.7555(d)(9)]

g. Notifications and Reports

Pioneer shall submit to the Department and EPA all notifications and reports required by 40 C.F.R. Part 63, Subpart DDDDD including, but not limited to, the following:

(1) Pioneer shall submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin. [40 C.F.R. § 63.7545(d)]

(2) The performance stack test report must verify that the operating limits for the boiler have not changed or provide documentation of the revised operating limits established. [40 C.F.R. §§ 63.7515(f)]

(3) Pioneer shall prepare and submit to EPA and the Department a compliance report every six months which contains the information contained in §§ 63.7540(b) and 63.7550(c) as applicable. [40 C.F.R. § 63.7550(a)]

(4) Each semi-annual compliance report shall cover the reporting period of January 1 through June 30 or July 1 through December 31 (as applicable). Each semi-annual compliance report shall be postmarked or submitted no later than July 31 or January 31 (respectively). [40 C.F.R. §§ 63.7550(b)(3) and (4)]

(5) Semi-annual compliance reports and results of compliance tests shall be submitted electronically to the EPA via their electronic reporting tool (ERT) CEDRI. [40 C.F.R. § 63.7550(h)]

3. General Requirements

The following requirements are applicable regardless of which subcategory compliance is being demonstrated with.

a. Continuous Compliance

At all times, Pioneer must operate and maintain Boilers #4 and #6, Process Heater #8, and Thermal Oil Heater #1, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of

whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 C.F.R. § 63.7500(a)(3)]

b. Work Practice Standards

(1) Boiler #4 does not have a continuous oxygen trim system. Therefore, as a work practice standard, Pioneer shall perform annual tune-ups on Boiler #4 as specified in §§ 63.7540(a)(10)(i) through (vi) and below. Each tune-up must be conducted no more than 13 months after the previous tune-up. Pioneer shall conduct the tune-up while burning the type of fuel that provided the majority of the heat input to the boiler over the 12 months prior to the tune-up. [40 C.F.R. §§ 63.7515(d), 63.7540(a)(10), and Table 3, Row 3]

(2) Boiler #6 does have a continuous oxygen trim system. Therefore, as a work practice standard, Pioneer shall perform tune-ups on Boiler #6 every five years as specified in §§ 63.7540(a)(10)(i) through (vi) and below. Each tune-up must be conducted no more than 61 months after the previous tune-up. Pioneer shall conduct the tune-up while burning the type of fuel that provided the majority of the heat input to the boiler over the 12 months prior to the tune-up. [40 C.F.R. §§ 63.7515(d), 63.7540(a)(12), and Table 3, Row 1]

(3) Pioneer shall set the oxygen level for Boiler #6 no lower than the oxygen concentration measured during the most recent tune-up. [40 C.F.R. § 63.7540(12)]

(4) Process Heater #8 and Thermal Oil Heater #1 are each process heaters in the units designed to burn gas 1 fuels subcategory with a heat input of 5 MMBtu/hr or less. Therefore, as a work practice standard, Pioneer shall perform tune-ups on Process Heater #8 and Thermal Oil Heater #1 every five years as specified in §§ 63.7540(a)(10)(i) through (vi) and below. Each tune-up must be conducted no more than 61 months after the previous tune-up. [40 C.F.R. §§ 63.7500(e), 63.7515(d), 63.7540(a)(12), and Table 3, Row 1]

c. Tune-Up Program

(1) The tune-up program, conducted to demonstrate continuous compliance, shall be performed as specified below:

(i) As applicable, inspect the burner, and clean or replace any component of the burner as necessary. For Boiler #6, Process Heater #8, and Thermal Oil Heater #1, delay of the burner inspection until the next scheduled shutdown is permitted for up to 72 months from the previous inspection. [40 C.F.R. §§ 63.7540(a)(10)(i) and (12)]

(ii) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern, consistent with the manufacturer's specifications. [40 C.F.R. § 63.7540(a)(10)(ii)]

(iii) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure it is correctly calibrated and functioning properly. [40 C.F.R. § 63.7450(a)(10)(iii)]

(iv) Optimize total emissions of CO, consistent with manufacturer's specifications. [40 C.F.R. § 63.7540(a)(10)(iv)]

(v) Measure the concentration in the effluent stream of CO in parts per million by volume (ppmv), and oxygen in volume percent, before and after adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. [40 C.F.R. § 63.7540(a)(10)(v)]

(vi) If a unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of start-up.. [40 C.F.R. § 63.7540(a)(13)]

(2) Tune-Up Report: A tune-up report shall be maintained onsite and, if requested, submitted to the Department and/or EPA. The report shall contain the following information:

(i) The concentration of CO in the effluent stream (ppmv) and oxygen (volume percent) measured at high fire or typical operating load both **before** and **after** the boiler tune-up;

(ii) A description of any corrective actions taken as part of the tune-up; and

(iii) For Boilers #4 and #6, the type and amount of fuel used in the 12 months prior to the tune-up.

[40 C.F.R. § 63.7540(a)(10)(vi)]

d. Recordkeeping

(1) Records shall be kept for a period of 5 years. [40 C.F.R. § 63.7560(b)]
[Note: All records must be kept for a period of six years pursuant to Standard Condition (6).]

(2) Records shall be kept on-site, or be accessible from on-site, for at least 2 years. Records may be kept off site for the remaining 3 years. [40 C.F.R. § 63.7560(c)]

B. 40 C.F.R. Part 63, Subpart OOO

Pioneer shall continuously comply with all applicable requirements of the most current version of *National Emission Standards for Hazardous Air Pollutant Emissions: Manufacture of Amino/Phenolic Resins*, 40 C.F.R. Part 63, Subpart OOO, including, but not limited to, those listed in this air emission license.

1. Emission Standard

Pioneer shall reduce uncontrolled organic HAP emissions from the aggregate batch vent stream by at least 83%, by weight, or to a concentration of 20 ppmv, whichever is less stringent. [40 C.F.R. § 63.1408(a)(2)(ii)]

2. Requirements for Pressure Relief Devices

a. Except during a pressure release event, Pioneer shall operate each pressure relief device in organic HAP gas or vapor service with an instrument reading of less than 500 ppm above background as described in Method 21 of 40 C.F.R. Part 60, Appendix A (Method 21). [40 C.F.R. § 63.1411(a)]

b. For pressure relief devices in organic HAP gas or vapor service, Pioneer shall comply with either (1) or (2) below following a pressure release, as applicable.

(1) If the pressure relief device does not consist of or include a rupture disk, Pioneer shall conduct instrument monitoring, as described by Method 21, no later than five calendar days after the pressure relief device returns to organic HAP service following a pressure release to verify that the pressure relief device is operating with an instrument reading of less than 500 ppm above background, except as provided in 40 C.F.R. § 63.1024(d) (delay of repair).

(2) If the pressure relief device consists of or includes a rupture disk, Pioneer shall install a replacement disk as soon as practicable after a pressure release, but no later than five calendar days after the pressure release, except as provided in 40 C.F.R. § 63.1024(d) (delay of repair). [40 C.F.R. § 63.1411(b)]

c. Delay of repair is allowed for any of the conditions specified in 40 C.F.R. §§ 63.1024(d)(1) – (5). Pioneer shall maintain a record of the facts that explain

any delay of repairs and, where appropriate, why the repair was technically infeasible without a process shutdown. [40 C.F.R. §§ 63.1411(b) and 63.1024(d)]

d. Emissions of organic HAP to the atmosphere from pressure relief devices in organic HAP service are prohibited, and Pioneer shall comply with the following requirements for all pressure relief devices in organic HAP service.

(1) Pioneer shall equip each pressure relief device in organic HAP service with a device(s) or parameter monitoring system that is capable of:

(i) Identifying the pressure release;
(ii) Recording the time and duration of each pressure release; and
(iii) Notifying operators immediately that a pressure release is occurring. The device or monitoring system may be either specific to the pressure relief device itself or may be associated with the process system or piping sufficient to indicate a pressure release to the atmosphere. Examples of these types of devices and systems include, but are not limited to, a rupture disk indicator, magnetic sensor, motion detector on the pressure relief valve stem, flow monitor, or pressure monitor.

(2) If any pressure relief device in organic HAP service releases to atmosphere as a result of a pressure release event, Pioneer shall calculate the quantity of organic HAP released during each pressure release event and report this quantity as required in 40 C.F.R. § 63.1417(f)(13)(iii). Calculations may be based on data from the pressure relief device monitoring alone or in combination with process parameter monitoring data and process knowledge.

[40 C.F.R. § 63.1412(c)]

3. Compliance Demonstration

Continuous compliance with the reduction standard for the aggregate batch vent stream shall be demonstrated following the procedures in 40 C.F.R. Part 63, Subpart SS, for closed vent systems. [40 C.F.R. §§ 63.1413(d)(3) and 63.1413(c)(3)] The requirements of 40 C.F.R. Part 63, Subpart SS are addressed in Condition (35)(F).

4. Recordkeeping Requirements

a. Pioneer shall keep copies of all applicable records and reports required by 40 C.F.R. Part 63, Subpart OOO, for at least five years. [40 C.F.R.

§ 63.1416(a)] Note: All records must be kept for a period of six years pursuant to Standard Condition (6).

b. All applicable records shall be maintained in such a manner that they can be readily accessed. The most recent six months of records shall be retained on site or shall be accessible from a central location by computer or other means that provides access within two hours after a request. The remaining four and one-half years of records may be retained offsite. Records may be maintained in hard copy or computer-readable form. [40 C.F.R. § 63.1416(a)(1)]

c. Pioneer shall maintain records of the temperature monitored on RTO #1 and Boiler #5/TO pursuant to 40 C.F.R. § 63.1416(c).

d. Pioneer shall maintain records specifying the times and duration of periods of monitoring system breakdowns, repairs, calibrations checks, zero (low-level) and high-level adjustments, and any other periods of process or control device operation when monitors are not operating. [40 C.F.R. § 63.1416(e)(3)(ii)(C)]

e. Pioneer shall maintain records of the following information for pressure relief devices in organic HAP service:

f. A list of identification numbers for all pressure relief devices noting those equipped with rupture disks;

g. The dates and results of the monitoring following a pressure release. The results shall include:

(1) The background level measured during each Method 21 test; and
(2) The maximum instrument reading measured at each piece of equipment during each Method 21 test.

h. Records of each pressure release to the atmosphere, including the following:

(1) The source, nature, and cause of the pressure release;
(2) The date, time, and duration of the pressure release;
(3) An estimate of the quantity of total HAP emitted during the pressure release and the calculations used for determining this quantity;
(4) The actions taken to prevent this pressure release; and
(5) The measures adopted to prevent future such pressure releases.

[40 C.F.R. § 63.1416(g)(5)]

5. Reporting Requirements

   a. Pioneer shall submit periodic reports (semiannual or quarterly reports, as applicable) pursuant to the requirements of 40 C.F.R. § 63.1417(f).

   b. If a source fails to meet an applicable standard, Pioneer shall report such events in the periodic report. Pioneer shall report the number of failures to meet the applicable standard, and for each instance, report the date, time, and duration of each failure. For each failure, the report must include a list of the affected sources or equipment, and estimate of the quantity of each regulated pollutant emitted over any emission limit, and a description of the method used to estimate emissions. [40 C.F.R. § 63.1417(g)]

   c. If changes in production occur where Reactor K1 or K2 would no longer be considered part of an APPU pursuant to §§ 63.1400(g)(7) or (8), Pioneer shall submit notification of changes to the primary product for an APPU. When notification is made in response to a change in the primary product under § 63.1400(g)(7), rationale for why it is anticipated that no amino/phenolic resins will be produced in the process unit in the future shall be included. [40 C.F.R. § 63.1417(h)(4)]

6. General Requirements

   a. The emission limits of Subpart OOO apply at all times except during periods of non-operation of the affected source (or specific potion thereof) resulting in cessation of the emissions to which this subpart applies. [40 C.F.R. § 63.1400(k)(1)]

   b. At all times, Pioneer must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the owner or operator to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether a source is operating in compliance with operation and maintenance requirements will be based on information available to the Department, which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 C.F.R. § 63.1400(k)(4)]

C. 40 C.F.R. Part 63, Subpart EEEE

Pioneer shall continuously comply with all applicable requirements of the most current version of *National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline)*, 40 C.F.R. Part 63, Subpart EEEE, including, but not limited to, those listed in this air emission license.

1. Emission Limits

   a. Pioneer shall reduce uncontrolled organic HAP emissions from Reactor K3 by at least 95%, by weight, or to a concentration equal to or less than 20 ppmdv corrected to 3% O_2, whichever is less stringent. [40 C.F.R. § 63.2346(a)(1) and Table 2b, Row 1]

   b. Pioneer shall be in compliance with this emission limit at all times, except during periods of nonoperation of Reactor K3 resulting in the cessation of emissions of organic HAP.

   c. The use of a bypass line at any time on a closed vent system to divert a vent stream from Reactor K3 to the atmosphere or to a control device not meeting the requirements of this regulation is a deviation from the emissions standard. [40 C.F.R. § 63.2378(e)(1)]

2. Compliance Demonstration and Monitoring

   Continuous compliance with the emission limit for Reactor K3 shall be demonstrated following the procedures in 40 C.F.R. Part 63, Subpart SS, for closed vent systems. [40 C.F.R. §§ 63.2346(a)(1), 63.2378(a), and Table 8] The requirements of 40 C.F.R. Part 63, Subpart SS are addressed in Condition (35)(F).

3. Emptying and Degassing

   Pioneer shall comply with the following requirements for Reactor K3 for tank emissions during storage tank shutdown operations (i.e., emptying and degassing of a storage tank). Pioneer shall comply with the following during tank emptying and degassing until the vapor space concentration inside Reactor K3 is less than 10% of the lower explosion limit (LEL). Pioneer shall determine the concentration using process instrumentation or portable measurement devices and follow procedures for calibration and maintenance according to the manufacturer's specifications.

   a. Pioneer shall remove organic liquids from Reactor K3 as much as practicable.

b. Pioneer shall control emissions from Reactor K3 to the emissions standard for normal operation as described above.

c. Pioneer shall comply with the general requirements for complying with this subpart as described below including, if appropriate, records of existing standard site procedures used to empty and degas equipment for safety purposes.

[40 C.F.R. § 63.2346(a)(6)]

4. Equipment Leak Components

For each pump, valve, and sampling connection that operates in organic liquids service for at least 300 hours per year, Pioneer shall comply with the applicable requirements under 40 C.F.R. Part 63, Subpart UU. The requirements of 40 C.F.R. Part 63, Subpart UU are addressed in Condition (35)(E).

5. Emissions Sources Not Requiring Control

a. For each storage tank less than 5,000 gallons and for the transfer rack, Pioneer shall keep documentation that verifies that each unit is not required to be controlled. The documentation must be kept up to date (i.e., all such emission sources at a facility are identified in the documentation regardless of when the documentation was last compiled) and must be in a form suitable and readily available for expeditious inspection and review including records stored in electronic form in a separate location. [40 C.F.R. § 63.2343(a)]

b. If one or more of the following occur, Pioneer must submit a subsequent Compliance report as specified in §§ 63.2343(b)(2) and (c)(2):

(1) Any storage tank or transfer rack becomes subject to control under Subpart EEEE;
(2) Any storage tank equal to or greater than 5,000 gallons becomes part of the affected source but is not subject to any of the emission limitations, operating limits, or work practice standards of this subpart;
(3) Any transfer rack (except those racks at which only unloading of organic liquids occurs) became part of the affected source; or
(4) The company name or address has changed.

[40 C.F.R. § 63.2343(d)]

6. Recordkeeping Requirements

In addition to those already cited, Pioneer shall keep the records required by 40 C.F.R. § 63.2390 including, but not limited to, the following:

a. For each storage tank that is part of the affected source and has a capacity greater than 5,000 gallons, Pioneer shall keep documentation, including a record of the annual average true vapor pressure of the total Table 1 organic HAP in the stored organic liquid, that verifies the storage tank is not required to be controlled under Subpart EEEE. The documentation must be kept up-to-date and must be in a form suitable and readily available for expeditious inspection and review, including records stored in electronic form in a separate location. [40 C.F.R. § 63.2343(b)(3)]

b. Pioneer shall keep all applicable records identified in 40 C.F.R. Part 63, Subparts A and SS including records related to notifications and reports; SSM; performance tests; CMS, performance evaluation plans; and records required to demonstrate continuous compliance. [40 C.F.R. §§ 63.2390(b)(1) and (2)]

c. In addition to the information required in 40 C.F.R. § 63.998(c), the manufacturer's specifications or Pioneer's written procedures must include a schedule for calibrations, preventative maintenance procedures, a schedule for preventative maintenance, and corrective actions to be taken if a calibration fails. [40 C.F.R. § 63.2390(b)(3)]

d. Pioneer shall keep records of the total actual annual facility-level organic liquid loading volume through transfer racks to document the applicability or inapplicability of the emission limitations in Subpart EEEE, Table 2, Row 7 or 8, as applicable. [40 C.F.R. § 63.2390(d)]

e. For each deviation from an emission limit, operating limit, and work practice standard, Pioneer shall keep the following records:

(1) In the event that an affected unit fails to meet an applicable standard, record the number of failures. Record the date, time and duration of each failure.
(2) For each failure to meet an applicable standard, record and retain a list of the affected sources or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit and a description of the method used to estimate the emissions.
(3) Record actions taken to minimize emissions and any corrective actions taken to return the affected unit to its normal or usual manner of operation.

[40 C.F.R. § 63.2390(f)]

f. For each flow event from a bypass line subject to the requirements in 40 C.F.R. § 63.2378(e)(1), Pioneer shall maintain records sufficient to determine whether or not the detected flow included flow requiring control. For each flow event from a bypass line requiring control that is released either directly to the atmosphere or to a control device not meeting the requirements of this regulation, Pioneer shall include an estimate of the volume of gas, the concentration of organic HAP in the gas and the resulting emissions of organic HAP that bypassed the control device using process knowledge and engineering estimates. [40 C.F.R. § 63.2390(g)]

(1) Records shall be in a form suitable and readily available for expeditious inspection and review, including records stored in electronic form at a separate location. [40 C.F.R. § 63.2394(a)]

(2) Pioneer shall keep files of all information (including all reports and notifications) for at least five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. [40 C.F.R. § 63.2394(b)] Note: All records must be kept for a period of six years pursuant to Standard Condition (6).

(3) Pioneer shall keep each record on site for at least two years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. Pioneer may keep the records off site for the remaining years. [40 C.F.R. § 63.2394(c)]

7. Reporting Requirements

a. Pioneer shall submit semi-annual compliance reports pursuant to the requirements of 40 C.F.R. § 63.2386(d) and 40 C.F.R. Part 63, Subpart SS. [40 C.F.R. § 63.2386(a) and Table 11]

b. Semi-annual compliance reports shall be submitted electronically to the EPA via their electronic reporting tool CEDRI. [40 C.F.R. § 63.2386(f)]

c. Within 60 days after the date of completing each performance test, Pioneer shall submit the results of any performance test electronically to the EPA via their electronic reporting tool CEDRI. [40 C.F.R. § 63.2386(g)]

Note: Pursuant to Standard Condition (8)(D), Pioneer is also required to submit a copy of the performance test report to the Department within 30 days of completing each performance test.

8. General Requirements

   a. Pioneer shall comply with the applicable emission limitations, operating limits, and work practice standards in Subpart EEEE at all times when the equipment identified as part of the affected source is in OLD operation. [40 C.F.R. § 63.2350(a)]

   b. At all times, Pioneer shall operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require Pioneer to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether a source is operating in compliance with operation and maintenance requirements will be based on information available to the Department or EPA which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 C.F.R. § 63.2350(d)]

D. 40 C.F.R. Part 63, Subpart FFFF

Pioneer shall continuously comply with all applicable requirements of the most current version of *National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing*, 40 C.F.R. Part 63, Subpart FFFF, including, but not limited to, those listed in this air emission license.

1. Requirements for Reactors K4 – K8

   a. Pioneer shall reduce uncontrolled organic HAP emissions from Reactors K4 – K8 by at least 98%, by weight, or to a concentration equal to or less than 20 ppmdv corrected to 3% O_2, whichever is less stringent, by venting emissions through a closed-vent system to either Boiler #5/TO or RTO #1. [40 C.F.R. § 63.2460(a) and Table 2, Row 1]

   b. Pioneer shall conduct a subsequent performance demonstration equivalent to an initial compliance demonstration within 180 days of a change in the worst-case conditions. [40 C.F.R. § 63.2460(c)(2)(vi)]

   c. Any performance test shall establish emission profiles and be conducted under worst-case conditions according to 40 C.F.R. § 63.1257(b)(8) instead of under normal operating conditions. [40 C.F.R. § 63.2460(c)(2)(ii)]

   d. Pioneer shall install, calibrate, and operate a flow indicator at the inlet of the control device to identify periods of no flow. Periods of no flow may not be

used in daily or block averages, and it may not be used in fulfilling a minimum data availability requirement. [40 C.F.R. § 63.2460(c)(7)]

2. Requirements for Equipment Leaks

a. Pioneers shall comply with the requirements of 40 C.F.R. Part 63, Subpart UU, and the requirements referenced therein, except as specified in 40 C.F.R. §§ 63.2480(b) and (d) – (f). [40 C.F.R. § 63.2480(a) and Table 6, Row 1] The requirements of Subpart UU are described in Condition (35)(E).

b. Pioneer shall comply with the following requirements for pressure relief devices, such as relief valves or rupture disks, in organic HAP gas or vapor service instead of the pressure relief device requirements in 40 C.F.R. Subpart UU, § 63.1030. [40 C.F.R. § 63.2480(e)]

(1) Except during a pressure release, Pioneer shall operate each pressure relief device in organic HAP gas or vapor service with an instrument reading of less than 500 ppm above background as measured by the method in 40 C.F.R. § 63.1023(b). [40 C.F.R. § 63.2480(e)(1)]

(2) Following a pressure release, Pioneer shall comply with the following:

(i) If the pressure relief device does not consist of or include a rupture disk, Pioneer shall conduct instrument monitoring as specified in 40 C.F.R. § 63.1023(b) no later than five calendar days after the pressure relief device returns to organic HAP gas or vapor service following a pressure release to verify that the pressure relief device is operating with an instrument reading of less than 500 ppm.

(ii) If the pressure relief device includes a rupture disk, Pioneer shall either comply with the requirements in the paragraph above (and not replace the rupture disk) or install a replacement disk as soon as practicable after a pressure release but no later than five calendar days after the pressure release.

(iii)If the pressure relief device consists only of a rupture disk, Pioneer shall install a replacement disk as soon as practicable after a pressure release but no later than five calendar days after the pressure release. Pioneer shall not initiate startup of the equipment served by the rupture disk until the rupture disc is replaced.

[40 C.F.R. § 63.2480(e)(2)

c. Pioneer shall comply with the following requirements for all pressure relief devices in organic HAP service instead of the pressure relief device requirements in 40 C.F.R. Subpart UU, § 63.1030. [40 C.F.R. § 63.2480(e)]

Pressure relief devices where all releases and potential leaks from a pressure relieve device are routed through a closed vent system to a control device (i.e., Boiler #5/TO or RTO #1) are exempt from these requirements. [40 C.F.R. § 63.2480(e)(4)]

The pressure relief devices listed in 40 C.F.R. § 63.2480(e)(5) are exempt from these requirements.

(1) Pioneer shall equip each affected pressure relief device with a device(s) or use a monitoring system that is capable of:

(i) Identifying the pressure release;
(ii) Recording the time and duration of the pressure release; and
(iii) Notifying operators immediately that a pressure release is occurring. The device or monitoring system must be either specific to the pressure relief device itself or must be associated with the process system or piping, sufficient to indicate a pressure release to the atmosphere. Examples of these types of devices and systems include, but are not limited to, a rupture disk indicator, magnetic sensor, motion detector on the pressure relief valve stem, flow monitor, or pressure monitor.

[40 C.F.R. § 63.2480(e)(3)(i)]

(2) Pioneer shall apply at least three redundant prevention measures to each affected pressure relief device and document these measures. [40 C.F.R. § 63.2480(e)(3)(ii)]

(i) If any affected pressure relief device releases to atmosphere as a result of a pressure release event, Pioneer shall perform root cause analysis and corrective action analysis and implement corrective actions according to the requirements described in paragraphs (d) and (e) below. Pioneer shall also calculate the quantity of organic HAP released during each pressure release event and report this quantity as required in the compliance report. Calculations may be based on data from the pressure relief device monitoring alone or in combination with process parameter monitoring data and process knowledge. [40 C.F.R. § 63.2480(e)(3)(iii)]

(ii) Pioneer shall determine the total number of release events that occurred during the calendar year for each affected pressure relief device separately. [40 C.F.R. § 63.2480(e)(3)(iv)]

(3) Except for the exemptions mentioned previously, the following release events from an affected pressure relief device are a deviation of the pressure release management work practice standards.

(i) Any release event for which the root cause of the event was determined to be operator error or poor maintenance;
(ii) A second release event from a single pressure relief device in a three-calendar-year period for the same root cause for the same equipment;
(iii) A third release event from a single pressure relief device in a three-calendar-year period for any reason.
[40 C.F.R. § 63.2480(e)(3)(v)]

d. Root Cause Analysis and Corrective Action Analysis

A root cause analysis and corrective action analysis must be completed as soon as possible but no later than 45 days after a release event. Following are special circumstances affecting the number of root cause analyses and/or corrective action analyses.

(1) Pioneer may conduct a single root cause analysis and corrective action analysis for a single emergency event that causes two or more pressure relief devices installed on the same equipment to release.

(2) Except as provided in the paragraph above, if more than one pressure relief device has a release during the same time period, an initial root cause analysis must be conducted separately for each pressure relief device that had a release. If the initial root cause analysis indicates that the release events have the same root cause(s), the initially separate root cause analyses may be recorded as a single root cause analysis and a single corrective action analysis may be conducted.

[40 C.F.R. § 63.2480(e)(6)]

e. Corrective Action Implementation

Pioneer shall implement the corrective action(s) identified in the corrective action analysis in accordance with the following requirements.

(1) All corrective action(s) must be implemented within 45 days of the event for which the root cause and corrective action analyses were required or as soon thereafter as practicable. If Pioneer concludes that no corrective action should be implemented, Pioneer shall record and explain the basis for that conclusion no later than 45 days following the event.

(2) For corrective actions that cannot be fully implemented within 45 days following the event for which the root cause and corrective action analyses were required, Pioneer shall develop an implementation schedule to complete the corrective action(s) as soon as practicable.

(3) No later than 45 days following the event for which a root cause and corrective action analyses were required, Pioneer shall record the corrective action(s) completed to date, and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates.

[40 C.F.R. § 63.2480(e)(7)]

f. Pioneer shall not install a flowing pilot-operated pressure relief device or replace any pressure relief device with a flowing pilot-operated pressure relief device. A flowing pilot-operated pressure relief device means the type of pilot-operated pressure relief device where the pilot discharge vent continuously releases emissions to the atmosphere when the pressure relief device is actuated. [40 C.F.R. § 63.2480(e)(8)]

3. General Requirements

a. Pioneer shall comply with the applicable emission limitations, operating limits, and work practice standards in Subpart FFFF at all times when the equipment identified as part of the affected source is in operation. [40 C.F.R. § 63.2450(a)]

b. Pioneer shall meet the requirements of 40 C.F.R. Part 63, Subpart SS, § 63.982(c) as amended by § 63.2450(e)(4). [40 C.F.R. § 63.2450(e)(1)] These requirements are included in the section of this license describing the requirements of Subpart SS.

c. The use of a bypass line at any time on a closed vent system (for Reactors K4 – K8) to divert emissions to the atmosphere or to a control device not meeting the emission limits is a deviation of the emissions standard, and Pioneer must meet the following requirements:

(1) Pioneer shall comply with the standards, recordkeeping, and reporting requirements for 40 C.F.R. Part 63, Subpart SS described earlier in this license.

(2) For each flow event from a bypass line on the closed vent system for Reactors K4 – K8, Pioneer shall maintain records sufficient to determine whether or not the detected flow included flow requiring control. For each flow event from a bypass line requiring control that is released either

directly to the atmosphere or to a control device not meeting the emission limits, Pioneer shall include an estimate of the volume of gas, the concentration of organic HAP in the gas, and the resulting emissions of organic HAP that bypassed the control device using process knowledge and engineering estimates. [40 C.F.R. § 63.2525(n)]

(3) The compliance report required by Subpart FFFF shall include the start date, start time, duration in hours, estimate of the volume of gas in standard cubic feet, the concentration of organic HAP in the gas in parts per million by volume and the resulting mass emissions of organic HAP in pounds that bypass a control device. For periods when the flow indicator is not operating, report the start date, start time, and duration in hours. [40 C.F.R. § 63.2520(e)(12)]

[40 C.F.R. § 63.2450(e)(6)]

d. Pioneer shall maintain records of the manufacturer's written specifications or other written procedures for the temperature monitoring devices on RTO #1 and Boiler #5/TO that include a schedule for calibrations, preventative maintenance procedures, a schedule for preventative maintenance, and corrective actions to be taken if a calibration fails. If a calibration fails, the temperature monitoring device is considered to be inoperative until corrective action is taken and the system passes calibration. Pioneer shall record the nature and cause of instances with the temperature monitoring devices are inoperative and the corrective action taken. [40 C.F.R. § 63.2450(k)(7)]

e. Pioneer shall at all times operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether a source is operating in compliance with operation and maintenance requirements will be based on information available to the Department and EPA which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 C.F.R. § 63.2450(u)]

f. Pioneer may designate a process vent as a maintenance vent if the vent is only used as a result of startup, shutdown, maintenance, or inspection of equipment where equipment is emptied, depressurized, degassed, or placed into service. Pioneer shall comply with the following requirements for each maintenance vent. Any vent designated as a maintenance vent is only subject to these

maintenance vent provisions and the associated recordkeeping and reporting requirements in 40 C.F.R. §§ 63.2525(p) and 63.2520(e)(14), respectively.

(1) Prior to venting to the atmosphere, Pioneer shall remove process liquids from the equipment as much as practical and depressurize the equipment to RTO #1 or Boiler #5/TO until one of the conditions in 40 C.F.R. §§ 63.2450(v)(1)(i) – (iv) is met.

(2) Except for maintenance vents that serve equipment that contains less than 50 pounds of VOC, Pioneer shall determine the concentration of the vapor or, if applicable, equipment pressure using process instrumentation or portable measurement devices and follow procedures for calibration and maintenance according to manufacturer's specifications. Pioneer shall determine the mass of VOC in the equipment served by the maintenance vent based on the equipment size and contents after considering any contents drained or purged from the equipment. Equipment size may be determined from equipment design specifications. Equipment contents may be determined using process knowledge.

[40 C.F.R. § 63.2450(v)]

4. Recordkeeping Requirements

a. In addition to those already cited, Pioneer shall keep the following records:

(1) The records required by the subparts referenced by Subpart FFFF, e.g., Subparts SS and UU; [40 C.F.R. § 63.2525(a)]

(2) For each operating scenario, the records specified in 40 C.F.R. § 63.2525(b);

(3) A schedule or log of operating scenarios for Reactors K4 – K8 updated each time a different operating scenario is put into effect; [40 C.F.R. § 63.2525(c)]

(4) The results of each CPMS calibration check and maintenance performed; [40 C.F.R. § 63.2525(f)]

(5) For each deviation from an emission limit, operating limit, or work practice standard, a record of the following information:

(i) In the event that an affected unit does not meet an applicable standard, record the number of deviations. Record the date, time, and duration of each deviation.

(ii) For each deviation from an applicable standard, record and retain a list of the affected sources or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit and a description of the method used to estimate the emissions.

(iii) Record actions taken to minimize emissions and any corrective actions taken to return the affected unit to its normal or usual manner of operation.

[40 C.F.R. § 63.2525(l)]

(6) For each maintenance vent opening, the records listed in 40 C.F.R. § 63.2525(p);

(7) For each pressure relief device subject to the pressure relief management work practice standards, the records listed in 40 C.F.R. § 63.2525(q).

b. Records may be maintained in electronic format. However, this ability to maintain electronic copies does not affect the requirement for Pioneer to make records, data, and reports available upon request to the Department or the EPA as part of an on-site compliance evaluation. [40 C.F.R. § 63.2525(t)]

5. Reporting Requirements

a. Pioneer shall submit semi-annual compliance reports pursuant to the requirements of 40 C.F.R. § 63.2520(e). These reports shall be submitted electronically to the EPA via their electronic reporting tool CEDRI. [40 C.F.R. § 63.2520(a) and Table 11, Row 3]

b. Within 60 days after the date of completing each performance test, Pioneer shall submit the results of any performance test electronically to the EPA via their electronic reporting tool CEDRI. [40 C.F.R. § 63.2520(f)]

Note: Pursuant to Standard Condition (8)(D), Pioneer is also required to submit a copy of the performance test report to the Department within 30 days of completing each performance test.

E. 40 C.F.R. Part 63, Subpart UU

Pioneer shall continuously comply with all applicable requirements of the most current version of *National Emission Standards for Equipment Leaks – Control Level 2 Standards*, 40 C.F.R. Part 63, Subpart UU, including, but not limited to, those listed in this air emission license. This regulation is used to demonstrate compliance with requirements contained in 40 C.F.R. Part 63, Subpart OOO, Subpart EEEE, and Subpart FFFF as addressed elsewhere in this license.

1. Equipment Identification

   a. Equipment subject to Subpart UU shall be identified. Identification of the equipment does not require physical tagging of the equipment. For example, the equipment may be identified on a plant site plan, in log entries, by designation of process unit or affected facility boundaries by some form of weatherproof identification, or by other appropriate methods. [40 C.F.R. § 63.1022(a)]

   b. In addition to the general identification requirements in the paragraph above, equipment subject to any of the provisions of 40 C.F.R. §§ 63.1023 through 63.1034 shall be specifically identified as described below.

      (1) Except for inaccessible, ceramic, or ceramic-lined connectors as described in 40 C.F.R. § 63.1027(e)(2) and instrumentation systems identified as described below, identify the connectors subject to the requirements of this subpart. Connectors need not be individually identified if all connectors in a designated area or length of pipe subject to the provisions of this subpart are identified as a group, and the number of connectors subject is indicated.

      (2) Identify the equipment that is equipped with a closed vent system and control device under the provisions of § 63.1026(e)(3) (pumps in light liquid service), § 63.1028(e)(3) (agitators), § 63.1030(d) (pressure relief devices in gas and vapor service), § 63.1031(e) (compressors), or § 63.1037(a) (alternative for enclosed-vented process units).

      (3) Identify the pressure relief devices equipped with rupture disks.

      (4) Identify instrumentation systems subject to the provisions of 40 C.F.R. § 63.1029. Individual components in an instrumentation system need not be identified.

      (5) Identify, either by list, location (area or group), or other method, of equipment in organic HAP service less than 300 hours per calendar year within a process unit or affected facilities subject to the provisions of Subpart UU.

      [40 C.F.R. § 63.1022(b)]

   c. Pioneer shall record the identity of equipment designated as unsafe-to-monitor and the planned schedule for monitoring this equipment. Pioneer shall record the identity of equipment designated as difficult-to-monitor, the planned schedule for monitoring this equipment, and an explanation why the equipment

is unsafe or difficult-to-monitor. This record must be kept at the plant and be available for review by an inspector. [40 C.F.R. § 63.1022(c)(3)]

d. Pioneer shall have a written plan that requires monitoring of the unsafe-to-monitor equipment as frequently as practical during safe-to-monitor times, but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in 40 C.F.R. § 63.1024 if a leak is detected. [40 C.F.R. § 63.1022(c)(4)(i)]

e. Pioneer shall have a written plan that requires monitoring of the difficult-to-monitor equipment at least once per calendar year and repair of the equipment according to the procedures in 40 C.F.R. § 63.1024 if a leak is detected. [40 C.F.R. § 63.1022(c)(4)(ii)]

f. The identity of connectors designated as unsafe-to-repair and an explanation why the connector is unsafe-to-repair shall be recorded. [40 C.F.R. § 63.1022(d)(2)]

2. Monitoring Methods

a. Instrument monitoring shall comply with Method 21 of 40 C.F.R. Part 60, Appendix A, (EPA Method 21) as specified in 40 C.F.R. § 63.1023(b).

b. Pioneer may elect to adjust or not to adjust the instrument readings for background. If Pioneer elects not to adjust instrument readings for background, Pioneer shall monitor the equipment according to the procedures specified in 40 C.F.R. §§ 63.1023(b)(1) through (5). In such cases, all instrument readings shall be compared directly to the applicable leak definition for the monitored equipment to determine whether there is a leak. If Pioneer elects to adjust instrument readings for background, Pioneer shall monitor the equipment according to the procedures specified in 40 C.F.R. §§ 63.1023(c)(1) through (4). [40 C.F.R. § 63.1023(c)]

c. Sensory monitoring shall consist of visual, audible, olfactory, or any other detection method used to determine a potential leak to the atmosphere. [40 C.F.R. § 63.1023(d)]

3. Leak Repair

a. Pioneer shall repair each leak detected as soon as practical, but not later than 15 calendar days after it is detected, except as described below under “Delay of Repair” and “Unsafe-to-Repair.” A first attempt at repair shall be made no later than five calendar days after the leak is detected. First attempt at repair for pumps includes, but is not limited to, tightening the packing gland nuts and/or

ensuring that the seal flush is operating at design pressure and temperature. First attempt at repair for valves includes, but is not limited to, tightening the bonnet bolts, and/or replacing the bonnet bolts, and/or tightening the packing gland nuts, and/or injecting lubricant into the lubricated packing. [40 C.F.R. § 63.1024(a)]

b. When each leak is detected, a weatherproof and readily visible identification shall be attached to the leaking equipment. [40 C.F.R. § 63.1022(e)(1)]

c. The leak identification on a valve in gas/vapor or light liquid service may be removed after it has been monitored as specified in 40 C.F.R. § 63.1025(d)(2), and no leak has been detected during that monitoring. The leak identification on a connector in gas/vapor or light liquid service may be removed after it has been monitored as specified in 40 C.F.R. § 63.1027(b)(3)(iv) and no leak has been detected during that monitoring. [40 C.F.R. § 63.1024(c)(1)]

d. The leak identification on equipment other than a valve or connector in gas/vapor or light liquid service that is subject to the provisions of 40 C.F.R. § 63.1027(b)(3)(iv), may be removed after it is repaired. [40 C.F.R. § 63.1024(c)(2)]

e. Delay of Repair

Delay of repair is allowed for any of the conditions specified below. Pioneer shall maintain a record of the facts that explain any delay of repairs and, where appropriate, why the repair was technically infeasible without a process unit shutdown.

(1) Delay of repair of equipment for which leaks have been detected is allowed if repair within 15 days after a leak is detected is technically infeasible without a process unit or affected facility shutdown. Repair of this equipment shall occur as soon as practical, but no later than the end of the next process unit or affected facility shutdown, except as provided in paragraph (5) below.

(2) Delay of repair of equipment for which leaks have been detected is allowed for equipment that is isolated from the process and that does not remain in regulated material service.

(3) Delay of repair for valves, connectors, and agitators is allowed if the following provisions are met:

(i) Pioneer determines that emissions of purged material resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair, and
(ii) When repair procedures are affected, the purged material is collected and destroyed or collected and routed to a process.

(4) Delay of repair for pumps is allowed if the requirements of 40 C.F.R. §§ 63.1024(d)(i) and (ii) are met.

(5) Delay of repair beyond a process unit or affected facility shutdown will be allowed for a valve if valve assembly replacement is necessary during the process unit or affected facility shutdown, and valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the second process unit or affected facility shutdown will not be allowed unless the third process unit or affected facility shutdown occurs sooner than six months after the first process unit or affected facility shutdown.

[40 C.F.R. § 63.1024(d)]

f. Unsafe-to-Repair

Any connector that is designated as unsafe-to-repair is exempt from the leak repair requirements of 40 C.F.R. § 63.1027(d), and paragraph (a) of this section.

4. Valves

Pioneer shall comply with the following requirements for valves in gas and vapor service and in light liquid service.

a. Pioneer shall monitor valves using EPA Method 21. A leak is defined as an instrument reading of 500 ppm or greater. [40 C.F.R. §§ 63.1025(b)(1) and (2)]

b. Pioneer shall monitor each valve once each quarter, except as provided below:

(1) At process units with less than 1% leaking valves, Pioneer may elect to monitor each valve once every two quarters.

(2) At process units with less than 0.5% leaking valves, Pioneer may elect to monitor each valve once every four quarters.

(3) At process units with less than 0.25% leaking valves, Pioneer may elect to monitor each valve once every two years.

[40 C.F.R. § 63.1025(b)(3)]

h. Pioneer shall keep a record of the monitoring schedule for each process unit. [40 C.F.R. § 63.1025(b)(3)(vi)]

i. If a leak is discovered, Pioneer shall repair the leak using the procedures for leak repair outlined above. [40 C.F.R. § 63.1025(d)(1)]

j. After a leak has been repaired, the valve shall be monitored at least once within the first three months after its repair in accordance with 40 C.F.R. § 63.1025(d)(2).

k. Exemptions

(1) Any valve that is vented to a closed vent system that is sent to a control device (i.e., Boiler #5/TO or RTO #1) is exempt from the monitoring requirements above. [40 C.F.R. §§ 63.1025(b) and 63.1037(a)]

(2) Any valve that is designated as unsafe-to-monitor is exempt from the monitoring requirements above. Pioneer shall monitor the valve according to the written plan specified in 40 C.F.R. § 63.1022(c)(4). [40 C.F.R. § 63.1025(e)(1)]

(3) Any valve that is designated as difficult-to-monitor is exempt from the monitoring requirements above except for the requirement to re-monitor within the first three months after its repair in accordance with 40 C.F.R. § 63.1025(d)(2). Pioneer shall monitor the valve according to the written plan specified in 40 C.F.R. § 63.1022(c)(4). [40 C.F.R. § 63.1025(e)(2)]

5. Pumps in Light Liquid Service

Pioneer shall comply with the following requirements for pumps in light liquid service.

a. Pioneer shall monitor each pump using EPA Method 21. A leak is defined as an instrument reading of 5,000 ppm or greater for pumps handling polymerizing monomers and 1,000 ppm for all other pumps. [40 C.F.R. §§ 63.1026(b)(1) and (2)]

b. For pumps to which a 1,000 ppm leak definition applies, repair is not required unless an instrument reading of 2,000 ppm or greater is detected. [40 C.F.R. § 63.1026(b)(3)]

c. If a leak is discovered, Pioneer shall repair the leak using the procedures for leak repair outlined above unless otherwise specified above or as specified for leaks identified by visual indication of liquids dripping as described below. [40 C.F.R. § 63.1026(d)]

d. Pioneer shall check each pump by visual inspection each calendar week for indications of liquids dripping form the pump seal. Pioneer shall document that the inspection was conducted and the date of the inspection. If there are indications of liquids dripping from the pump seal at the time of the weekly inspection, Pioneer shall either:

(1) Monitor the pump using EPA Method 21. If the instrument reading indicates a leak, Pioneer shall repair the leak using the procedures for leak repair outlined above.

or

(2) Pioneer shall eliminate the visual indications of liquids dripping from the pump seal.

[40 C.F.R. § 63.1026(b)(4)]

e. If, when calculated on a six-month rolling average basis, at least the greater of 10% of the pumps in a process unit or three pumps in a process unit leak, Pioneer shall implement a quality improvement program for pumps that complies with the requirements of 40 C.F.R. § 63.1035. [40 C.F.R. § 63.1026(c)(1)]

f. Any pump that is designated as unsafe-to-monitor is exempt from the monitoring requirements above. Pioneer shall monitor the pump according to the written plan specified in 40 C.F.R. § 63.1022(c)(4). [40 C.F.R. § 63.1026(e)(6)]

6. Connectors

The following requirements apply to connectors in gas an vapor service and in light liquid service for equipment subject to Subpart UU through Subpart OOO (Reactors K1 and K2). [40 C.F.R. §§ 63.1027(b)]

a. Pioneer shall monitor connectors using EPA Method 21. A leak is defined as an instrument reading of 500 ppm or greater. [40 C.F.R. §§ 63.1027(b)(1) and (2)]

b. Pioneer shall monitor each connector on the following schedule based on the monitoring results from the preceding monitoring period:

(1) If the percentage of leaking connectors in the process unit was greater than or equal to 0.5%, Pioneer shall monitor within 12 months (1 year).

(2) If the percentage of leaking connectors in the process unit was greater than or equal to 0.25% but less than 0.5%, Pioneer shall monitor within 4 years. Pioneer may comply with the requirements of this paragraph by monitoring at least 40% of the connectors within 2 years of the start of the monitoring period, provided all connectors have been monitored by the end of the 4-year monitoring period.

(3) If the percentage of leaking connectors in the process unit was less than 0.25%, Pioneer shall monitor at least 50% of the connectors within 4 years of the start of the monitoring period and either of the following (as applicable):

(i) If the percentage of leaking connectors calculated from the monitoring results in the first 4 years is greater than or equal to 0.35% of the monitored connectors, Pioneer shall monitor as soon as practical, but within the next 6 months, all connectors that have not yet been monitored during the monitoring period. At the conclusion of monitoring, a new monitoring period shall be started based on the percentage of leaking connectors of the total monitored connectors.

(ii) If the percentage of leaking connectors calculated from the monitoring results in the first 4 years is less than 0.35% of the monitored connectors, Pioneer shall monitor all connectors that have not yet been monitored within 8 years of the start of the monitoring period.

[40 C.F.R. § 63.1027(b)(3)]

c. If, during the monitoring conducted pursuant to the paragraph above, a connector is found to be leaking, it shall be re-monitored once within 90 days after repair to confirm that it is not leaking. [40 C.F.R. § 63.1027(b)(3)(iv)]

d. Pioneer shall keep a record of the start date and end date of each monitoring period for each process unit. [40 C.F.R. § 63.1027(b)(3)(v)]

e. If a leak is discovered, Pioneer shall repair the leak using the procedures for leak repair outlined above. [40 C.F.R. § 63.1027(d)]

f. Exemptions

(1) Any connector that is vented to a closed vent system that is sent to a control device (i.e., Boiler #5/TO or RTO #1) is exempt from the monitoring requirements above. [40 C.F.R. § 63.1037(a)]

(2) Any connector that is designated as unsafe-to-monitor is exempt from the monitoring requirements above. Pioneer shall monitor the connector according to the written plan specified in 40 C.F.R. § 63.1022(c)(4). [40 C.F.R. § 63.1027(e)(1)]

(3) Any connector that is inaccessible or that is ceramic or ceramic-lined is exempt from the monitoring requirements, the leak repair requirements, and the recordkeeping and reporting requirements. An inaccessible connector is one that is any of the following:

(i) Buried;
(ii) Insulated in a manner that prevents access to the connector by a monitor probe;
(iii) Obstructed by equipment or piping that prevents access to the connector by a monitor probe;
(iv) Unable to be reached from a wheeled scissor-lift or hydraulic-type scaffold that would allow access to connectors up to 7.6 meters (25 feet) above the ground;
(v) Inaccessible because it would require elevating the monitoring personnel more than 2 meters (7 feet) above a permanent support surface or would require the erection of scaffold; or
(vi) Not able to be accessed at any time in a safe manner to perform monitoring. Unsafe access includes, but is not limited to, the use of a wheeled scissor-lift on unstable or uneven terrain, the use of a motorized man-lift basket in areas where an ignition potential exists, or access would require near proximity to hazards such as electrical lines, or would risk damage to equipment.

[40 C.F.R. § 63.1027(e)(2)(i)]

g. If any inaccessible, ceramic or ceramic-lined connector is observed by visual, audible, olfactory, or other means to be leaking, the visual, audible, olfactory, or other indications of a leak to the atmosphere shall be eliminated as soon as practical. [40 C.F.R. § 63.1027(e)(2)(ii)]

7. Agitators

The following requirements apply to agitators in gas an vapor service and in light liquid service for equipment subject to Subpart UU through Subpart OOO (Reactors K1 and K2) or Subpart FFFF (Reactors K4 – K8). [40 C.F.R. §§ 63.1028(c)(1)]

a. Pioneer shall monitor agitators using EPA Method 21. A leak is defined as an instrument reading of 10,000 ppm or greater. [40 C.F.R. §§ 63.1028(c)(1) and (2)]

b. If a leak is discovered using EPA Method 21 monitoring, Pioneer shall repair the leak using the procedures for leak repair outlined above. [40 C.F.R. § 63.1028(d)]

c. Each agitator seal shall be checked by visual inspection each calendar week for indications of liquids dripping from the agitator seal. Pioneer shall document that the inspection was conducted and the date of the inspection. [40 C.F.R. § 63.1028(c)(3)(i)]

d. If the visual inspection indicates there are liquids dripping from the agitator seal, Pioneer shall do one of the following prior to the next required inspection:

(1) Pioneer shall monitor the agitator seal using EPA Method 21 to determine if there is a leak of regulated material. If an instrument reading of 10,000 ppm or greater is measured, a leak is detected, and Pioneer shall repair the leak using the procedures for leak repair outlined above.
or
(2) Pioneer shall eliminate the indications of liquids dripping from the agitator seal.

[40 C.F.R. § 63.1028(c)(3)(ii)]

e. Exemptions

(1) Each agitator that is vented to a closed vent system that is sent to a control device (i.e., Boiler #5/TO or RTO #1) is exempt from the monitoring requirements above. [40 C.F.R. §§ 63.1028(c)(1), 63.1028(e)(3) and 63.1037(a)]

(2) Each agitator equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the monitoring requirements above provided the requirements specified in 40 C.F.R. §§ 63.1028(e)(1)(i) through (iv) are met. [40 C.F.R. § 63.1028(e)(1)] The phrase "(except

during periods of startup, shutdown, or malfunction)" is redacted from § 63.1028(e)(1)(i)(A) pursuant to 40 C.F.R. § 63.2480(f)(7).

(3) Any agitator that is designed with no externally actuated shaft penetrating the agitator housing is exempt from the monitoring requirements above. [40 C.F.R. § 63.1028(e)(2)]

(4) Any agitator seal that is designated as a difficult-to-monitor agitator seal is exempt from the monitoring requirements above, and Pioneer shall monitor the agitator seal according to the written plan specified in 40 C.F.R. § 63.1022(c)(4). [40 C.F.R. § 63.1028(e)(5)]

(5) Any agitator seal that is obstructed by equipment or piping that prevents access to the agitator by a monitor probe is exempt from the monitoring requirements above. [40 C.F.R. § 63.1028(e)(6)]

(6) Any agitator seal that is designated as an unsafe-to-monitor agitator seal is exempt from the monitoring requirements above, and Pioneer shall monitor the agitator seal according to the written plan specified in 40 C.F.R. § 63.1022(c)(4). [40 C.F.R. § 63.01028(e)(7)]

8. Heavy Liquid Service, Pressure Relief Devices in Liquid Service, and Instruments

Pioneer shall comply with the following requirements for pumps, valves, connectors, and agitators in heavy liquid service, pressure relief devices in liquid service, and instrumentation systems. [40 C.F.R. § 63.1029(b)(1)]

a. If evidence of a potential leak to the atmosphere is found by visual, audible, olfactory, or any other detection method, Pioneer shall monitor the item using EPA Method 21 within five calendar days, unless the potential leak is repaired. Repaired shall mean that the visual, audible, olfactory, or other indications of a leak to the atmosphere have been eliminated; that no bubbles are observed at potential leak sites during a leak check using soap solution; or that the system will hold a test pressure.

A leak is defined as an instrument reading of 10,000 ppm or greater for agitators, 5,000 ppm or greater for pumps handling polymerizing monomers, or 2,000 ppm or greater for all other pumps, or 500 ppm or greater for valves, connectors, instrumentation systems, and pressure relief devices.

[40 C.F.R. §§ 63.1029(b) and (c)]

b. If a leak is discovered using EPA Method 21 monitoring, Pioneer shall repair the leak using the procedures for leak repair outlined above. [40 C.F.R. § 63.1029(b)(2)]

c. Exemptions

Each unit subject to this section that is vented to a closed vent system that is sent to a control device (i.e., Boiler #5/TO or RTO #1) is exempt from the monitoring requirements above. [40 C.F.R. §§ 63.1029(b)(1) and 63.1037(a)]

9. Sampling Connections

Pioneer shall comply with the following requirements for sampling connection systems.

a. Each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed vent system, except as follows:

(1) Each unit subject to this section that is vented to a closed vent system that is sent to a control device (i.e., Boiler #5/TO or RTO #1) is exempt from these requirements. [40 C.F.R. §§ 63.1032(b) and 63.1037(a)]

(2) In-situ sampling systems and sampling systems without purges are exempt from these requirements. [40 C.F.R. § 63.1032(d)]

[40 C.F.R. § 63.1032(b)]

b. Each closed-purge, closed-loop, or closed vent system shall meet the following applicable requirements:

(1) The system shall return the purged process fluid directly to a process line that is part of a closed vent system that is sent to a control device (i.e., Boiler #5/TO or RTO #1); or

(2) The system is designed and operated to capture and transport all the purged process fluid to a closed vent system that is sent to a control device (i.e., Boiler #5/TO or RTO #1); or

(3) Pioneer shall collect, store, and transport the purged process fluid to a waste management or treatment system as described in 40 C.F.R. § 63.01032(c)(4).

[40 C.F.R. § 63.1032(c)]

c. Containers that are part of a closed purge system shall be covered or closed when not being filled or emptied. [40 C.F.R. § 63.1032(c)(5)]

10. Open-Ended Valves or Lines

Pioneer shall comply with the following requirements for open-ended valves or lines.

a. Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as follows:

(1) Each unit subject to this section that is vented to a closed vent system that is sent to a control device (i.e., Boiler #5/TO or RTO #1) is exempt from these requirements. [40 C.F.R. §§ 63.1033(b)(1) and 63.1037(a)]

(2) Open-ended valves or lines in an emergency shutdown system that are designed to open automatically in the event of a process upset are exempt from these requirements. [40 C.F.R. § 63.1033(c)]

(3) Open-ended valves or lines containing materials that would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system are exempt from these requirements. [40 C.F.R. § 63.1033(d)]

b. The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line, or during maintenance. [40 C.F.R. § 63.1033(b)(1)]

c. Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed. [40 C.F.R. § 63.1033(b)(2)]

d. When a double block and bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with the requirement to seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line, or during maintenance. [40 C.F.R. § 63.1033(b)(3)]

11. Recordkeeping Requirements

Pioneer shall maintain the records required by 40 C.F.R. § 63.1038 including, but not limited to, the following:

a. Pioneer shall keep general and specific equipment identification if the equipment is not physically tagged and Pioneer is electing to identify the equipment subject to this subpart through written documentation such as a log or other designation. [40 C.F.R. § 63.01038(b)(1)]

b. Pioneer shall keep a written plan as specified in § 63.1022(c)(4) for any equipment that is designated as unsafe- or difficult-to-monitor. [40 C.F.R. § 63.01038(b)(2)]

c. Pioneer shall maintain a record of the identity and an explanation as specified in § 63.1022(d)(2) for any equipment that is designated as unsafe-to-repair. [40 C.F.R. § 63.1038(b)(3)]

d. As specified in § 63.1022(e), Pioneer shall maintain the identity of compressors operating with an instrument reading of less than 500 parts per million. [40 C.F.R. § 63.1038(b)(4)]

e. Pioneer shall keep records associated with the determination that equipment is in heavy liquid service. [40 C.F.R. § 63.1038(b)(5)]

f. When each leak is detected, the following information shall be recorded and kept pursuant to the referencing subpart, except for the information for connectors complying with the eight-year monitoring period allowed under 40 C.F.R. § 63.1027(b)(3)(iii) shall be kept five years beyond the date of its last use. Note: All records must be kept for a period of six years pursuant to Standard Condition (6).

(1) The date of first attempt to repair the leak;

(2) The date of successful repair of the leak;

(3) Maximum instrument reading measured by EPA Method 21 at the time the leak is successfully repaired or determined to be nonrepairable;

(4) “Repair delayed” and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak; and

(5) Dates of process unit or affected facility shutdowns that occur while the equipment is unrepaired.

[40 C.F.R. § 63.1023(e)(2) and § 63.1024(f)]

g. Pioneer may develop a written procedure that identifies the conditions that justify a delay of repair. The written procedures may be part of a separate document that is maintained at the plant site. In such cases, reasons for delay of repair may be documented by citing the relevant sections of the written procedure. [40 C.F.R. § 63.1024(f)(4)(i)]

h. If delay of repair was caused by depletion of stocked parts, there must be documentation that the spare parts were sufficiently stocked on-site before depletion and the reason for depletion. [40 C.F.R. § 63.1024(f)(4)(ii)]

i. Pioneer shall maintain the following records for valves:

(1) The monitoring schedule for each process unit; and

(2) The valve subgrouping records specified in § 63.1025(b)(4)(iv), if applicable.

[40 C.F.R. § 63.1038(c)(1)]

j. Pioneer shall maintain the following records for pumps:

(1) Documentation of pump visual inspections;

(2) Documentation of dual mechanical seal pump visual inspections; and

(3) For the criteria as to the presence and frequency of drips for dual mechanical seal pumps, records of the design criteria and explanations and any changes and the reason for the changes.

[40 C.F.R. § 63.1038(c)(2)]

k. Pioneer shall maintain records of the monitoring schedule for connectors. [40 C.F.R. § 63.1038(c)(3)]

l. Pioneer shall maintain the following records for agitators:

(1) Documentation of agitator seal visual inspections;

(2) For the criteria as to the presence and frequency of drips for agitators, records of the design criteria and explanations and any changes and the reason for the changes.

[40 C.F.R. § 63.1038(c)(4)]

m. Pioneer shall maintain records for any Quality Improvement Program in accordance with 40 C.F.R. § 63.1038(c)(7).

12. Reporting Requirements

Pioneer shall report the information specified in of 40 C.F.R. § 63.1039(b) in the periodic report specified by the referencing subpart (i.e., Subparts OOO, EEEE, or FFFF). [40 C.F.R. § 63.1039(b)]

F. 40 C.F.R. Part 63, Subpart SS

Pioneer shall continuously comply with all applicable requirements of the most current version of *National Emission Standards for Closed Vent Systems, Control Devices, Recovery Devices and Routing to a Fuel Gas System or a Process*, 40 C.F.R. Part 63, Subpart SS, including, but not limited to, those listed in this air emission license. This regulation is used to demonstrate compliance with requirements contained in 40 C.F.R. Part 63, Subpart UU, Subpart OOO, Subpart EEEE, and Subpart FFFF as addressed elsewhere in this license

1. Closed Vent Systems

a. Each closed vent system shall be designed and operated to collect the regulated material vapors from the emission point, and to route the collected vapors to a control device. [40 C.F.R. § 63.983(a)(1)]

b. Closed vent systems shall be operated at all times when emissions are vented to, or collected by, them. [40 C.F.R. § 63.983(a)(2)]

c. Pioneer shall comply with one of the following for each closed vent system that contains bypass lines that could divert a vent stream to the atmosphere:

(1) Properly install at the entrance to any bypass line, maintain, and operate a flow indicator capable of taking periodic readings; or

(2) Secure the bypass line valve in the non-diverting position with a car-seal or a lock-and-key type configuration.

[40 C.F.R. § 63.983(a)(3) as modified by § 63.2450(e)(4)]

d. Pioneer shall conduct annual inspections of the closed vent system in accordance with the requirements of 40 C.F.R. § 63.983(b)(1) – (3).

e. Leaks in the closed vent system shall be repaired in accordance with the requirements of 40 C.F.R. § 63.983(d)(1) or (2), as applicable.

f. Delay of repair of a closed vent system for which leaks have been detected is allowed if repair within 15 days after a leak is detected is technically infeasible or unsafe without a closed vent system shutdown, as defined in § 63.981, or if Pioneer determines that emissions resulting from immediate repair would be greater than the emissions likely to result from delay of repair. Repair of such equipment shall be completed as soon as practical, but not later than the end of the next closed vent system shutdown. [40 C.F.R. § 63.983(d)(3)]

g. For each bypass line, Pioneer shall either:

(1) If a flow indicator is used, take a reading at least once every 15 minutes; or

(2) If the bypass line valve is secured in the non-diverting position, visually inspect the seal or closure mechanism at least once every month to verify that the valve is maintained in the non-diverting position, and the vent stream is not diverted through the bypass line.

[40 C.F.R. § 63.983(b)(4)]

2. Control Devices and Monitoring

a. Pioneer shall operate and maintain either Boiler #5/TO or RTO #1 to control emissions from the closed vent system such that the monitored temperature, as described below, remains above the temperature established at the most recent performance test. As of the date of this license, those temperatures are 1,413.6 ºF on a 3-hour average basis for Boiler #5/TO and above 1,517.3 ºF on a 3-hour average basis for RTO #1 based on a performance test conducted in August 2023. [40 C.F.R. § 63.985(a)]

b. Boiler #5/TO and RTO #1 shall be operated at all times when emissions are vented to them. [40 C.F.R. §§ 63.986(a)(2) and 63.988(a)(2)]

c. When Boiler #5/TO is being used to control emissions, the vent stream shall be introduced into the flame zone of the boiler. [40 C.F.R. § 63.988(a)(3)]

d. When Boiler #5/TO is being used to control emissions from the aggregate batch vent stream or Reactor K3, a temperature monitoring device shall be installed in the fire box. [40 C.F.R. §§ 63.985(c)(2) and 63.988(c)(3)]

e. When RTO #1 is being used to control emissions from the aggregate batch vent stream or Reactor K3, a temperature monitoring device shall be installed in the fire box or in the ductwork immediately downstream of the fire box in a position before any substantial heat exchange occurs. [40 C.F.R. §§ 63.985(c)(2) and 63.988(c)(1)]

f. The temperature monitoring devices used in Boiler #5/TO and RTO #1 shall be operated in maintained pursuant to 40 C.F.R. § 63.996(c), except for § 63.996(c)(2)(ii) (following an SSM plan) pursuant to § 63.2346(l).

3. Recordkeeping Requirements

a. Pioneer shall keep a record of the procedure used for calibrating the temperature monitoring devices in RTO #1 and Boiler #5/TO. [40 C.F.R. § 63.998(c)(1)(i)]

b. For the temperature monitoring devices in RTO #1 and Boiler #5/TO, Pioneer shall keep records of the date and time of the completion of calibration checks and all maintenance performed on the temperature monitoring devices. [40 C.F.R. §§ 63.998(c)(1)(ii) and 63.2450(k)(1)(ii)]

c. Pioneer shall keep continuous records of the output of the temperature monitoring devices on RTO #1 and Boiler #5/TO during all times each unit is used as a control device for the aggregate batch vent stream. Records shall be maintained as specified in 40 C.F.R. § 63.998(b), except for references to periods of startup, shutdown, or malfunction do not apply pursuant to §§ 63.2346(l) and 63.2450(e)(4). [40 C.F.R. §§ 63.998(c)(2)(i) and 63.998(d)(2)(i)]

d. Pioneer shall keep records of the daily average value of each temperature monitoring device. [40 C.F.R. § 63.998(c)(2)(ii)]

e. Pioneer shall keep records of periods of operation during which the temperature monitoring device parameter boundaries are exceeded. Parameter boundaries are established through an initial or subsequent performance test. [40 C.F.R. § 63.998(c)(2)(iii)]

f. Pioneer shall keep the following records for the closed vent systems:

(1) The identification of all parts of the closed vent system that are designated as unsafe or difficult to inspect, an explanation of why the equipment is

unsafe or difficult to inspect, and the plan for inspecting the equipment; [40 C.F.R. § 63.998(d)(1)(i)]

(2) For each closed vent system that contains bypass lines that could divert a vent stream away from the control device and to the atmosphere, Pioneer shall keep a record of either of the following, as applicable:

(i) Hourly records of whether the flow indicator specified under § 63.983(a)(3)(i) was operating and whether a diversion was detected at any time during the hour, as well as records of the times of all periods when the vent stream is diverted from the control device or the flow indicator is not operating; or
(ii) Where a seal mechanism is used to comply with § 63.983(a)(3)(ii), hourly records of flow are not required. In such cases, Pioneer shall record that the monthly visual inspection of the seals or closure mechanisms has been done, and shall record the occurrence of all periods when the seal mechanism is broken, the bypass line valve position has changed, or the key for a lock-and-key type lock has been checked out, and records of any car-seal that has been broken.

[40 C.F.R. § 63.998(d)(1)(ii)]

(3) For a closed vent system, when a leak is detected, Pioneer shall keep a record of the following:

(i) The instrument and the equipment identification number and the operator name, initials, or identification number;
(ii) The date the leak was detected and the date of the first attempt to repair the leak;
(iii) The date of successful repair of the leak;
(iv) The maximum instrument reading measured by the procedures in § 63.983(c) after the leak is successfully repaired or determined to be nonrepairable;
(v) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 days after discovery of the leak. Pioneer may develop a written procedure that identifies the conditions that justify a delay of repair. In such cases, reasons for delay of repair may be documented by citing the relevant sections of the written procedure; and
(vi) Copies of the Periodic Reports as specified in § 63.999(c), if records are not maintained on a computerized database capable of generating summary reports from the records.

[40 C.F.R. § 63.998(d)(1)(iii)]

(4) For each instrumental or visual inspection conducted in accordance with § 63.983(b)(1) for closed vent systems during which no leaks are detected, Pioneer shall record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. [40 C.F.R. § 63.998(d)(1)(iv)]

(5) Pioneer shall record occurrences and the cause of periods when the monitored temperature in Boiler #5/TO or RTO #1, as applicable, was below the temperature established at the most recent performance test during any operating time when it was being used as a control device pursuant to Subpart SS. This information shall be reported in the Periodic Report. [40 C.F.R. § 63.998(d)(5)]

4. Reporting Requirements

Pioneer shall include the information outlined in 40 C.F.R. § 63.999(c), as applicable, in the semiannual report required by this license.

G. 40 C.F.R. Part 63, Subpart OOOO

Pioneer shall continuously comply with all applicable requirements of the most current version of *National Emission Standards for Hazardous Air Pollutant Emissions: Printing, Coating, and Dyeing of Fabrics and Other Textiles*, 40 C.F.R. Part 63, Subpart OOOO, including, but not limited to, those listed in this air emission license.

1. Treaters

a. Pioneer shall limit organic HAP emissions from Treaters M1, M4, M5, and M7 to no more than 0.12 kg of organic HAP per kg of solids applied. [40 C.F.R. § 63.4290 and Table 1, Row 2]

b. All thinning and cleaning material as purchased shall contain no organic HAP. [40 C.F.R. § 63.4291(a)(1)]

"No organic HAP" means no organic HAP listed in Table 5 of Subpart OOOO is present at 0.1% by mass or more and no organic HAP not listed in Table 5 of Subpart OOOO is present at 1.0% by mass or more. [40 C.F.R. § 63.4371]

2. Impregnators and Coater C4

Pioneer shall reduce uncontrolled organic HAP emissions to the atmosphere from Impregnators P4, P5, and P9 and Coater C4 by achieving at least 97%, by weight, organic HAP overall control efficiency. [40 C.F.R. § 63.4290 and Table 1, Row 2]

3. Compliance Demonstration

Pioneer may apply the following compliance requirements to individual lines or to multiple lines as a group. [40 C.F.R. § 63.4291(a)]

a. Treaters

For Treaters M1, M4, M5, and M7, compliance with the emission standards shall be demonstrated by monthly recordkeeping which confirms that the organic HAP content, as purchased, of each coating applied is less than or equal to 0.12 kg of organic HAP per kg of solids applied and that any thinning or cleaning materials contain no organic HAP. [40 C.F.R. §§ 63.4322(a) and (d) and 63.4312(c)(1)(i)]

The application of any regulated material that does not meet the standards above is a deviation from the emissions limitation and must be reported in the semiannual report. [40 C.F.R. § 63.4322(b)]

b. Impregnators and Coater C4

(1) For Impregnators P4, P5, and P9 and Coater C4, Pioneer shall perform the calculations described in 40 C.F.R. § 63.4351(d) on a monthly basis. [40 C.F.R. § 63.4352(a)]

If Pioneer fails to meet an organic HAP overall control efficiency of at least 97% for any month, this is a deviation that must be reported in the semiannual report. [40 C.F.R. § 63.4352(b)]

(2) The average temperature in the firebox of Boiler #5/TO in any 3-hour block period shall not fall below the temperature limit established in the most recent performance test. This limit applies during all operating times. [40 C.F.R. § 63.4292(b) and Table 2]

4. Monitoring

a. Pioneer shall install, operate, and maintain a compliance parameter monitoring system (CPMS) to monitor the firebox temperature of the control device (Boiler #5/TO) used to control emissions from Impregnators P4, P5, and P9 and Coater C4. The temperature monitoring equipment shall be installed, operated, and maintained according to the manufacturer's specifications. The calibration of the chart recorder, data logger, or temperature indicator must be verified every three months or the chart recorder, data logger, or temperature indicator must be replaced. A thermocouple is considered part of the temperature

indicator for purposes of performing periodic calibration and verification checks. [40 C.F.R. § 63.4364(c)(1)]

b. The temperature monitoring device shall be equipped with a continuous recorder with an accuracy of +/- 1 percent of the temperature being monitored in degrees Celsius (°C) or +/- 1°C, whichever is greater. The thermocouple or temperature sensor must be installed in the combustion chamber at a location in the combustion zone. [40 C.F.R. § 63.4364(c)(2)]

c. Data from the firebox temperatures CPMS shall be collected and averages determined pursuant to 40 C.F.R. §§ 63.4364(a)(1) – (8). [40 C.F.R. § 63.4364(a)]

d. Pioneer shall develop a site-specific monitoring plan for the capture systems containing the information in 40 C.F.R. §§ 63.4364(e)(1) and (2) and monitor the capture system in accordance with the plan. The monitoring plan shall be made available for inspection by the Department upon request. [40 C.F.R. § 63.4364(e) and Table 2, Row 3]

Any deviation from the operating parameter value or range of values which are monitored according to the plan will be considered a deviation from the operating limit.

e. The site-specific monitoring plan for the capture systems shall be reviewed at least annually. [40 C.F.R. § 63.4364(e)(5)]

5. Work Practice Plan

a. Pioneer shall develop and implement a work practice plan to minimize organic HAP emissions from the storage, mixing, and conveying of regulated materials used in, and waste materials generated by, Impregnators P4, P5, and P9 and Coater C4. [40 C.F.R. § 63.4293(b)]

b. The work practice plan shall specify practices and procedures to ensure that, at a minimum, the following elements are implemented:

(1) All organic-HAP-containing regulated materials and waste materials shall be stored in closed containers.

(2) Spills of organic-HAP-containing regulated materials, and waste materials shall be minimized.

(3) Organic-HAP-containing regulated materials and waste materials shall be conveyed from one location to another in closed containers or pipes.

(4) Mixing vessels which contain organic-HAP-containing regulated materials shall be closed except when adding to, removing, or mixing the contents.

(5) Emissions of organic HAP shall be minimized during cleaning of web coating/printing or dyeing/finishing storage, mixing, and conveying equipment.

[40 C.F.R. § 63.4293(b)]

6. Recordkeeping Requirements

a. Pioneer shall maintain the following records:

(1) A copy of each notification and report submitted to comply with 40 C.F.R. Part 63, Subpart OOOO, and the documentation supporting each notification and report. [40 C.F.R. § 63.4312(a)]

(2) A current copy of information provided by materials suppliers or manufacturers, such as manufacturer's formulation data or test data used to determine the mass fraction of organic HAP for coating, thinning, and cleaning materials; and the mass fraction of solids for coating materials. If Pioneer conducted testing to determine mass fraction of organic HAP of coating materials or the mass fraction of solids of coating materials, Pioneer must keep a copy of the complete test report. If Pioneer uses information provided by the manufacturer or supplier of the material that was based on testing, Pioneer must keep the summary sheet of results provided by the manufacturer or supplier. Pioneer is not required to obtain the test report or other supporting documentation from the manufacturer or supplier. [40 C.F.R. § 63.4312(b)]

(3) The following records on a monthly basis:

(i) A record of the web coating operations on which each compliance option was used (e.g., compliant material option or organic HAP overall control efficiency option) and the time period (beginning and ending dates) for which each option was used; For each month, a record of all required calculations for the compliance options used. [40 C.F.R. § 63.4312(c)(1)]

(ii) For Treaters M1, M4, M5, and M7, a record of the calculation of the organic HAP content, as purchased, for each coating and printing material applied; [40 C.F.R. § 63.4312(c)(1)(i)]

(4) The records required to show continuous compliance with each operating limit specified in Table 2 (i.e., average firebox temperature and capture system monitoring); [40 C.F.R. § 63.4312(j)(3)]

(5) The data and documentation used to determine used to support a determination that the capture system meets the criteria in Method 204 of appendix M to 40 C.F.R. part 51 for a PTE and has a capture efficiency of 100 percent; [40 C.F.R. § 63.4312(j)(4)]

(6) Records of each add-on control device performance test; [40 C.F.R. § 63.4312(j)(6)(i)]

(7) Records of the operation conditions during the add-on control device performance test showing that the performance test was conducted under representative operating conditions; [40 C.F.R. § 63.4312(j)(6)(ii)]

(8) Records of the data and calculations used to establish the emission capture and add-on control device operating limits (i.e., average firebox temperature and capture system monitoring) and to document compliance with the operating limits as specified in Table 2; [40 C.F.R. § 63.4312(j)(7)]

(9) A record of the work practice plan and documentation that Pioneer is implementing the plan on a continuous basis; [40 C.F.R. § 63.4312(j)(8)]

(10) A record of the name and mass of each regulated material applied; [40 C.F.R. § 63.4312(d)]

(11) A record of the mass fraction of organic HAP for each regulated material applied; [40 C.F.R. § 63.4312(e)] and

(12) A record of the mass fraction of coating solids for each coating material applied. [40 C.F.R. § 63.4312(f)]

(13) The following records for each deviation from an emission limitation:

(i) The date, time, and duration of the deviation;

(ii) A list of the affected sources or equipment for which the deviation occurred and the cause of the deviation;

(iii) An estimate of the quantity of each regulated pollutant emitted over any applicable emission limit or any applicable operating limit, and a description of the method used to calculate the estimate; and

(iv) A record of actions taken to minimize emissions in accordance with 40 C.F.R. § 63.4300(b) and any corrective actions taken to return the affected unit to its normal or usual manner of operation.

[40 C.F.R. § 63.4312(i)]

b. Pioneer's records shall be in a form suitable and readily available for expeditious review. Where appropriate, the records may be maintained as electronic spreadsheets or as a database. Any records required to be maintained by Subpart OOOO that are in reports that were submitted electronically via the EPA's CEDRI may be maintained in electronic format. This ability to maintain electronic copies does not affect the requirement to make records, data, and reports available upon request to the Department or the EPA as part of an on-site compliance evaluation. [40 C.F.R. § 63.4313(a)]

c. Pioneer shall keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. [40 C.F.R. § 63.4313(b)] Note: All records must be kept for a period of six years pursuant to Standard Condition (6).

d. Pioneer shall keep each record on site for at least two years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. Records may be kept off site for subsequent years. [40 C.F.R. § 63.4313(c)]

7. Reporting Requirements

Pioneer shall submit to the Department and EPA all notifications and reports required by 40 C.F.R. Part 63, Subpart OOOO including, but not limited to, the following:

a. Pioneer shall prepare and submit to EPA and the Department a compliance report every six months which contains the information contained in §§ 63.4311(a)(3)(i) through (v) and 63.4311(a)(4) through (8), as applicable. [40 C.F.R. §§ 63.4311(a) and 63.4311(a)(3)]

b. Each semi-annual compliance report shall cover the reporting period of January 1 through June 30 or July 1 through December 31 (as applicable). Each semi-annual compliance report shall be postmarked or delivered no later than July 31 or January 31 (respectively). [40 C.F.R. §§ 63.4311(a)(1)(ii) and (iii)]

c. If Pioneer submits a semiannual compliance report pursuant to Subpart OOOO along with, or as part of, the semiannual monitoring report required by 40 C.F.R. Part 70 (i.e., this Title V license) and the semiannual compliance report

includes all required information concerning deviations from any emission limitation in Subpart OOOO, its submission shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a semiannual compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the Department. [40 C.F.R. § 63.4311(a)(2)]

d. Semi-annual compliance reports shall be submitted electronically to the EPA via their electronic reporting tool CEDRI. [40 C.F.R. § 63.4311(f)]

8. General Requirements

a. The web coating operations shall be in compliance with the applicable emission limits in 40 C.F.R. Part 63, Subpart OOOO, Table 1, and work practice standards at all times. [40 C.F.R. §§ 63.4300(a)(1), (a)(3)(i) and (a)(3)(iii)]

b. For Impregnators P4, P5, and P9 and Coater C4, Pioneer shall be in compliance with the operating limits for emission capture systems and add-on control devices for all averaging time periods. [40 C.F.R. § 63.4300(a)(3)(ii)]

c. Pioneer shall operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the owner or operator to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether a source is operating in compliance with operation and maintenance requirements will be based on information available to the Department and EPA that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the affected source. [40 C.F.R. § 63.4300(b)]

H. 40 C.F.R. Part 63, Subpart ZZZZ

Pioneer shall continuously comply with all applicable requirements of the most current version of *National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines* 40 C.F.R. Part 63, Subpart ZZZZ, including, but not limited to, those listed in this air emission license.

1. Pioneer shall meet the following operational limitations for Generator #2 and Fire Pump #1:

a. Change the oil and filter every 500 hours of operation or annually, whichever comes first;

b. Inspect the air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and
c. Inspect the hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

Records shall be maintained documenting compliance with the operational limitations.
[40 C.F.R. § 63.6602 and Table 2(c); and 06-096 C.M.R. ch. 140, BPT]

2. Pioneer shall meet the following operational limitations for Generator #1:

a. Change the oil and filter every 500 hours of operation or annually, whichever comes first;
b. Inspect the spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and
c. Inspect the hoses and belts every 500 hours or operation or annually, whichever comes first, and replace as necessary.

Records shall be maintained documenting compliance with the operational limitations.
[40 C.F.R. § 63.6602 and Table 2(c); and 06-096 C.M.R. ch. 140, BPT]

3. Oil Analysis Program Option
Pioneer has the option of utilizing an oil analysis program which complies with the requirements of § 63.6625(i) in order to extend the specified oil change requirement. If this option is used, Pioneer must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 C.F.R.§ 63.6625(i)]

4. Non-Resettable Hour Meter
A non-resettable hour meter shall be installed and operated on each engine.
[40 C.F.R. § 63.6625(f)]

5. Maintenance, Testing, and Non-Emergency Operating Situations

a. The engines shall each be limited to 100 hours/year for maintenance checks and readiness testing. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not include peak shaving, 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). These limits are based on a calendar year. Compliance shall be demonstrated by records (electronic or written logs) of all engine operating hours. [40 C.F.R. § 63.6640(f) and 06-096 C.M.R. ch. 140, BPT]

b. Pioneer shall keep records that include maintenance conducted on the engines and the hours of operation of each engine recorded through the non-resettable hour meter. Documentation shall include the number of hours each unit operated for emergency purposes, the number of hours each unit operated for non-emergency purposes, and the reason each engine was in operation during each time. [40 C.F.R. §§ 63.6655(e) and (f)]

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

7. Startup Idle and Startup Time Minimization
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.
[40 C.F.R. § 63.6625(h) & 40 C.F.R. Part 63, Subpart ZZZZ Table 2c]

(36) **Parts Washers**

Parts washers at Pioneer are subject to *Solvent Cleaners*, 06-096 C.M.R. ch. 130.

A. Pioneer shall keep records of the amount of solvent added to each parts washer. [06-096 C.M.R. ch. 140, BPT]

B. The following are exempt from the requirements of 06-096 C.M.R. ch. 130 [06-096 C.M.R. ch. 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 subject to 06-096 C.M.R. ch. 130.
1. Pioneer shall attach a permanent conspicuous label to each unit summarizing the following operational standards [06-096 C.M.R. ch. 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 parts washer.
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 material used to clean spills shall then be immediately stored in covered containers.
h. Work area fans shall not blow across the opening of the washer 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.
3. Each parts washer**(s)** shall be equipped with a cover that shall be closed at all times except during cleaning of parts or the addition or removal of solvent
[06-096 C.M.R. ch. 130]

(37) **General Process Sources**

1. Visible emissions from any general process source not elsewhere described shall not exceed 20% on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 4(B)(4)]

2. Visible emissions from any baghouse not elsewhere described shall not exceed 10% on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 4(B)(3)]

(38) **Fugitive Emissions**

1. Pioneer shall not cause emissions of any fugitive dust during any period of construction, reconstruction, or operation without taking reasonable precautions. Such reasonable precautions shall be included in the facility's continuing program of best management practices for suppression of fugitive particulate matter. See 06-096 C.M.R. ch. 101, § 4(C) for a list of potential reasonable precautions.

2. Pioneer shall not cause or allow visible emissions within 20 feet of ground level, measured as any level of opacity and not including water vapor, beyond the legal boundary of the property on which such emissions occur. Compliance with this standard shall be determined pursuant to 40 C.F.R. Part 60, Appendix A, Method 22.

[06-096 C.M.R. ch. 101, § 4(C)]

(39) **Performance Test Protocol**

For any performance testing required by this license, Pioneer shall submit to the Department a performance test protocol, as outlined in the Department's Performance Testing Guidance, at least 30 days prior to the scheduled date of the performance test. [06-096 C.M.R. ch. 140, BPT] **Enforceable by State-only**

(40) **Parameter Monitor General Requirements**
[06-096 C.M.R. chs. 140 and 117]

A. Parameter monitors required by this license shall be installed, operated, maintained, and calibrated in accordance with manufacturer recommendations or as otherwise required by the Department.

B. Parameter monitors required by this license shall continuously monitor data at all times the associated emissions unit is in operation. "Continuously" with respect to the operation of parameter monitors required by this license means providing equally spaced data points with at least one valid data point in each successive 15-minute period. A minimum of three valid 15-minute periods constitute a valid hour.

C. Each parameter monitor must record accurate and reliable data. If any parameter monitor is recording 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. The Department may include in that enforcement action any period of time that the parameter monitor was not recording accurate and reliable data during that quarter unless the licensee can demonstrate to the Department's satisfaction that the failure of the system to record such data was due to the performance of established quality assurance and quality control procedures or unavoidable malfunctions.

Enforceable by State-only

(41) **Compliance Assurance Monitoring (CAM) – General Requirements**

A. The licensee shall operate and monitor all emission units and their associated control equipment in accordance with the approved CAM Plan. [40 C.F.R. Part 64]

B. Any excursion shall be reported in semiannual reports. If excursions occur, the licensee must also certify intermittent compliance with the emission limits for the control device monitored in the annual compliance certification. [40 C.F.R. Part 64]

C. Upon detecting an excursion, the licensee shall restore normal operation of the control equipment as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. [40 C.F.R. § 64.7(d)]

D. Prior to making any changes to the approved CAM plan, the licensee shall notify the Department and, if necessary, submit a proposed license modification application to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters. [40 C.F.R. § 64.7(e)]

E. Any change of the target level shall be submitted in a letter to the Department for written approval. [06-096 C.M.R. ch. 140, BPT]

(42) **Semiannual Reporting** [06-096 C.M.R. ch. 140]

Note: This semiannual report is separate from, and in addition to, any semiannual report required by specific NSPS or NESHAP regulations.

A. The licensee shall submit to the Department semiannual reports which are due on **January 31st** and **July 31st** of each year. The facility's designated responsible official must sign this report.
B. The semiannual report shall be considered on-time if the postmark of the submittal is on or before the due date or if the report is received by the Department within seven calendar days of the due date.
C. Each semiannual report shall include a summary of the periodic and CAM monitoring required by this license.
D. All instances of deviations from license requirements and the corrective action taken must be clearly identified and provided to the Department in summary form for each six-month interval.

(43) **Annual Emission Statements**

A. In accordance with *Emission Statements*, 06-096 C.M.R. ch. 137, Pioneer shall annually report to the Department, in a format prescribed by the Department, the information necessary to accurately update the State's emission inventory. The emission statement shall be submitted as specified by the date in 06-096 C.M.R. ch. 137.

B. Pioneer shall maintain records sufficient to complete and submit the annual emission statement as required by 06-096 C.M.R. ch. 137.

C. Every third year, or as requested by the Department, Pioneer shall report to the Department emissions of hazardous air pollutants as required pursuant to 06-096 C.M.R. ch. 137, § (3)(C). The next report is due no later than May 15, 2027, for emissions occurring in calendar year 2026. Pioneer shall pay the annual air quality

surcharge, calculated by the Department based on these reported emissions of hazardous air pollutants, by the date required in Title 38 M.R.S. § 353-A(3). [38 M.R.S. § 353-A (1-A)]

(44) **General Applicable State Regulations**

The licensee is subject to the State regulations listed below.

Origin and Authority	Requirement Summary	Enforceability
06-096 C.M.R. ch. 102	Open Burning	-
06-096 C.M.R. ch. 109	Emergency Episode Regulations	-
06-096 C.M.R. ch. 110	Ambient Air Quality Standards	-
06-096 C.M.R. ch. 116	Prohibited Dispersion Techniques	-
38 M.R.S. § 585-B, §§5	Mercury Emission Limit	Enforceable by State-only

(45) **Units Containing Ozone Depleting Substances**

When repairing or disposing of units containing ozone depleting substances, the licensee shall comply with the standards for recycling and emission reduction pursuant to 40 C.F.R. Part 82, Subpart F, except as provided for motor vehicle air conditioning units in Subpart B. Examples of such units include refrigerators and any size air conditioners that contain CFCs. [40 C.F.R. Part 82, Subpart F]

(46) **Asbestos Abatement**

When undertaking Asbestos abatement activities, Pioneer shall comply with the *Standard for Asbestos Demolition and Renovation,* 40 C.F.R. Part 61, Subpart M.

(47) **Risk Management Plan**

Pioneer is subject to all applicable requirements of *Risk Management Plan*, 40 C.F.R. Part 68.

(48) **Expiration of a Part 70 License**

A. Pioneer shall submit a complete Part 70 renewal application at least six but no more than 18 months prior to the expiration of this air license.

B. Pursuant to Title 5 M.R.S. §10002, and 06-096 C.M.R. ch. 140, the Part 70 license shall not expire and all terms and conditions shall remain in effect until the Department takes final action on the renewal application of the Part 70 license. An existing source submitting a complete renewal application under 06-096 C.M.R. ch. 140 prior to the expiration of the Part 70 license will not be in violation of operating without a Part 70 license. **Enforceable by State-only**

(49) **New Source Review**

Pioneer is subject to all previous New Source Review (NSR) requirements summarized in this Part 70 air emission license, and the NSR requirements remain in effect even if this 06-096 C.M.R. ch. 140 Air Emissions License, A-448-70-F-R/A, expires.

DONE AND DATED IN AUGUSTA, MAINE THIS 2nd DAY OF FEBRUARY, 2026.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____ for _____
MELANIE LOYZIM, COMMISSIONER

The term of this license shall be five (5) years from the signature date above.

[Note: If a complete renewal application, as determined by the Department, is submitted at least six but no more than 18 months prior to expiration of the facility's Part 70 license, then pursuant to Title 5 M.R.S. §10002, all terms and conditions of the Part 70 license shall remain in effect until the Department takes final action on the Part 70 license renewal application.]

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 6/9/2020
Date of application acceptance: 6/11/2020

This Order prepared by Lynn Muzzey, Bureau of Air Quality.