



DEPARTMENT OF ENVIRONMENTAL PROTECTION

ANGUS S. KING, JR.
GOVERNOR

EDWARD O. SULLIVAN
COMMISSIONER

PIONEER PLASTICS CORPORATION)
 ANDROSCOGGIN COUNTY) DEPARTMENTAL
 AUBURN, MAINE) FINDINGS OF FACT AND ORDER
 A-448-72-K-A/R) AIR EMISSION LICENSE

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

I. REGISTRATION

A. Introduction

Pioneer Plastics Corporation (Pioneer) operates a manufacturing plant in Auburn, Maine. The principal products are Pionite, a decorative laminate used for counter tops and furniture, and low pressure decorative laminates, a melamine coated paper used as a decorative surface for particle board, and other substrates. Pioneer also manufactures specialty resins both for resale and use in the production of Pionite and low pressure laminates.

B. Emission Equipment

Pioneer is authorized to operate the following air emission units and its associated equipment.

Fuel Burning Equipment

Equipment	Date of Construction	Maximum Capacity (MMBtu/hr)	Fuel Type, % Sulfur	Maximum Firing Rate	Stack #
Boiler #4	1975	55.5	#6 oil, 2.0%	370 gal/hr	1
Boiler #6	1981	96.6	#6 oil, 0.7%	645 gal/hr	1
		96.8	Natural Gas	92,000 scf/hr	1
Boiler #7	1985	2.79	Natural Gas	2657 scf/hr	2
Boiler #8	1994	5.0	Natural Gas	4855 scf/hr	2
Fire Pump	1970	2.1	Diesel Fuel	15.2 gal/hr	4
Space Heater	1987	0.07	Propane Gas	0.77 gal/hr	3

Serving Maine People & Protecting Their Environment

AUGUSTA
 STATE HOUSE STATION 17
 AUGUSTA, MAINE 04333-0017
 (207) 297-7699 FAX (207) 297-7325
 OFFICE LOCATED AT RAY BUILDING HOSPITAL STREET

PORTLAND
 312 CANCO ROAD
 PORTLAND, ME 04103
 (207) 522-4300 FAX (207) 822-6303

BANGOR
 105 HOBAN ROAD
 BANGOR, ME 04401
 (207) 941-4570 FAX (207) 941-4584

PRESQUE ISLE
 1235 CENTRAL DRIVE, SKIDAWAY BEACH
 PRESQUE ISLE, ME 04769
 (207) 764-6477 FAX (207) 764-6577

Incineration

Equipment	Date of Construction	Maximum Capacity (MMBtu/hr)	Fuel Type, % Sulfur	Maximum Firing Rate (i.e. gal/hr)	Stack #
VOC Incinerator (Class VII)	1982	39.5 (from #6 oil)	#6 oil, 2.0%, Type 5 Waste	263 gal/hr	1

Process Equipment/Operations

Equipment	Description	Control Equipment/Technology
Urea Reactor K1	Melamine/Urea Resin Production	None
Melamine Reactor K2	Melamine/Urea Resin Production	None
Urea Reactor K3 / Resin Blender	Melamine/Urea Resin Production and Phenolic Resin Blending	Incinerator
Polyester Reactor #1 K4	Polyester Resin Production and Blending	Incinerator, Wet Scrubber
Polyester Reactor #2 K5	Polyester Resin Production and Blending	Incinerator, Wet Scrubber
Letdown Reactor K6	Polyester Resin Production and Blending	Incinerator, Wet Scrubber
Pilot Reactor K7	Polyester Resin Production	Incinerator, Wet Scrubber
Polyester Reactor #3 K8	Polyester Resin Production and Blending	Incinerator, Wet Scrubber
2 Grinders	Polyester Resin Crushing	Cartridge/Bag Filters
Paper Impregnator P1	Phenolic Impregnation and Sheeting of Paper	Incinerator
Paper Impregnator P4	Phenolic Impregnation of Paper	Incinerator
Paper Impregnator P5	Phenolic Impregnation of Paper	Incinerator
Paper Coater C3	Polyester Coating of Substrates	Incinerator
Paper Coater C4	Polyester Coating of Substrates	Incinerator
Paper Treater M1	Melamine Coating of Paper	Low solvent coatings
Paper Treater M3	Melamine Coating of Paper	Low solvent coatings
Paper Treater M4	Melamine Coating of Paper	Low solvent coatings
Paper Treater M5	Melamine Coating of Paper	Low solvent coatings
Paper Treater M6	Melamine Coating of Paper	Low solvent coatings

II. BEST PRACTICAL TREATMENT

A. Introduction

In order to receive an air emission license under Chapter 115 of the Air Regulations, the applicant must control emissions from each air emission source to a level considered by the Department to represent Best Practical Treatment (BPT). Emissions from existing sources undergoing a license renewal are receiving BPT if those emissions are being controlled by an air pollution control apparatus installed less than 15 years prior to the date of the license application approval, or an accepted BPT analysis shows that those emissions are being controlled in a manner consistent with emission controls commonly used in sources of similar age and design in similar industries. BPT also includes the control technology requirements to license: 1) new sources and modifications (LAER/BACT); and 2) sources located in or whose emissions significantly impact a designated nonattainment area (RACT).

The BPT analysis for Pioneer's sources which are currently licensed and controlled, or whose emissions are being controlled in a manner consistent with emissions controls commonly used in sources of similar age and design in similar industries is discussed in section II.B below. The BPT analysis for Pioneer's sources which are subject to control technology requirements for the first time under this license renewal are discussed in sections II.C, D, E and F below. These control technology requirements include the Best Available Control Technology (BACT) requirements which apply to the Boiler #6 modification, and the Reasonably Available Control Technology (RACT) requirements as outlined in the Department's Air Regulations implementing the Clean Air Act Amendments of 1990. The BACT requirements are discussed in II.C below. The facility's sources which are subject to NOx RACT requirements under Chapter 138 of the Air Regulations are discussed in II.D below. The facility's sources which are subject to VOC RACT requirements under Chapter 134 of the Air Regulations are discussed in section II.E below. The solvent degreaser which is subject to the operating standards of Chapter 130 of the Air Regulations is discussed in II.F below. The Department's BPT finding is made in Section II.G.

- B. BPT For Sources Currently Licensed and Controlled, Or Whose Emissions Are Being Controlled In A Manner Consistent With Emission Controls Commonly Used In Sources of Similar Age and Design in Similar Industries.
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1. 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 not subject to New Source Performance Standards (NSPS) for Small Industrial Steam Generating Units, Subpart Dc, because the boiler was constructed prior to June 9, 1989 and has not been modified or reconstructed since that date.
2. Incinerator
The Incinerator was manufactured by Hirt in 1982. The Incinerator has a separate heat recovery component for the production of steam. The maximum heat input capacity from #6 fuel oil fired in the Incinerator is 39.5 MMBtu/hr. The Incinerator was first licensed on November 10, 1981 in Air Emission license #1996, after preliminary engineering work on the Incinerator had been completed. The Incinerator was installed at the facility in 1983.
3. Boiler #7
Boiler #7 is a 2.79 MMBtu/hr natural gas boiler manufactured in 1985 by Power Flame and installed by Pioneer in 1985. Boiler #7 was first licensed on September 17, 1993 in Amendment 3 to Air Emission License #2472.
4. Boiler #8
Boiler #8 is a 5.0 MMBtu/hr natural gas boiler installed by Pioneer in 1994. Boiler #8 was licensed on September 17, 1993 in Amendment 3 to Air Emission License #2472.
5. Diesel Engine (Fire Pump)
The Fire Pump is driven by a Cummins NT280 diesel engine. The Fire Pump was installed in 1970.
6. Space Heater
The Space Heater burns propane gas and was installed in 1987.
7. Resin Production - K4, K5, K6, K7, and K8, VOC Emissions
K4, K5, K6, K7, and K8 are reactors used to manufacture polyester resins. K4, K5, K6 and K8 are also used to blend polyester resins after the manufacturing process is complete. Odors from these processes were subject to citizen complaints in the early 1980s and, as a result, Air Emissions License #2472, issued on July 10, 1985, required the facility to acquire, install and operate a wet scrubber. BPT was determined as 90% control of VOC emissions. The Wet Scrubber System, installed in 1987,

undesirable. The combined effect of the two systems could produce a flame considerably longer and wider than the current flame, resulting in flame impingement on the boiler tubes and the furnace walls, thereby shortening boiler life. Overall, this scenario was estimated by Pioneer to be at the cost of \$2,300 to \$3,000 per ton of NOx reduced.

Pioneer then evaluated a low NOx burner system by itself, and estimated the overall cost-effectiveness of this option to be approximately \$1,300 per ton of NOx reduced. Pioneer has proposed BACT for NOx emissions as either replacing the existing burner with a low NOx burner, or optimizing the existing combustion equipment in order to meet NOx performance which is equivalent to a low NOx burner.

Following the submittal of the BACT analysis, Pioneer elected to optimize the existing combustion equipment to comply with BACT. During the first quarter of 1995, Pioneer optimized the existing equipment 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 NOx levels. Second, improvements were made to the combustion control system to reduce overcorrections which were occurring to air/fuel ratios during load changes. These improvements reduced excess air levels and corresponding NOx 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 NOx emissions.

CO and VOC

CO and VOC emissions from industrial boilers are generally controlled by employing good combustion practices. Maintaining proper excess air levels throughout the boiler firing range is critical to minimizing CO and VOC emissions. The existing combustion controls on Boiler #6 have the proper excess air levels automatically programmed, and the oxygen trim system adjusts the fuel/air ratio to maintain the excess air setpoint; therefore, Pioneer has proposed that the existing system represents BACT for CO and VOC emissions.

Based on the BACT analysis submitted to the Department on November 22, 1994, the Department finds that Boiler #6 is meeting BACT.

D. NOx RACT, Chapter 138

BPT for sources located in or whose emissions significantly impact a designated nonattainment area requires a demonstration that emissions are receiving Reasonably Available Control Technology (RACT) as defined in Chapter 100 of

the Air Regulations. RACT is a method of treatment that is reasonably available as a retrofit to existing processes or equipment considering the existing state of technology, current federal guidelines for determining the degree of emission reduction achievable and the type and unique character of the affected sources. Pioneer is located in Androscoggin County which is currently designated a moderate nonattainment area for ozone. Because Pioneer has the potential to emit greater than 100 tons per year of NOx, it is subject to Chapter 138 (NOx RACT) of the Air Regulations.

Pioneer submitted a NOx RACT application on February 2, 1995, and submitted supplemental information on May 23, 1995 at the Department's request. The NOx RACT application and supplemental information contains Pioneer's NOx RACT analysis/proposal which is summarized below.

At the time the NOx RACT application was filed, the following NOx emitting equipment was considered to be subject to Chapter 138 since each piece of equipment had the potential to emit 10 tons per year or more of NOx:

<u>Emission Unit</u>	<u>Potential NOx</u>	<u>Calendar Year 1994 Actual NOx</u>
Boiler 4	146 tons/yr	6.8 tons/yr
Boiler 6	254 "	36.9 "
Incinerator	63 "	26.9 "
Diesel Engine (Fire Pump)	38 "	0.06 "

As discussed below (see Section II.D.4.), this License contains restrictions which limit the potential NOx emissions from the Diesel Engine to less than 10 tons per year, thereby exempting the Diesel Engine from NOx RACT requirements. Upon issuance of this License, only Boiler #4, Boiler #6 and the Incinerator are subject to the requirements of Chapter 138.

RACT for NOx Emissions

1. Boiler #4

Pioneer operates Boiler #4 primarily in the winter months to produce auxiliary steam to meet peak steam demands. Boiler #4 is also a standby boiler in the event that Boiler #6 is not available. Boiler #4 has the potential to emit less than 20 tons per month of NOx at maximum capacity. Pioneer has proposed to limit NOx emissions from Boiler #4 to 0.60 lbs/MMBtu and to limit annual consumption of #6 fuel oil in Boiler #4 to 2,200,000 gallons.

~~This fuel limit, in conjunction with the 0.60 lbs/MMBtu limit results in potential NOx emissions less than 100 tons per year. By limiting the potential emission in this fashion, Boiler #4 meets the definition of an "auxiliary/standby boiler". NOx RACT requirements for an auxiliary/standby boiler are contained in Section 3(M) of Chapter 138 which requires an annual tuneup and recordkeeping.~~

2. The Incinerator

The Incinerator is considered a "miscellaneous source" subject to an alternative RACT determination under Chapter 138.

The Incinerator uses a #6 oil-fired burner to heat the incoming VOC-laden air stream to a temperature range of 1250 to 1400°F in which the VOCs are oxidized. The NOx emitted from the Incinerator is produced by the oil burner in two forms; through oxidation of nitrogen in the #6 oil (fuel NOx) as well as oxidation of molecular nitrogen contained in the air stream fed to the Incinerator (thermal NOx). Neither the fume-laden air stream nor the liquid polyester distillate contain significant amounts of bound nitrogen.

The application of combustion modifications and post-combustion controls to reduce NOx were considered by Pioneer. The combustion modifications which are commonly applied to conventional boilers to lower NOx aim to lower the flame temperature, such as low NOx burners or overfire air. However, a combustion modification of this nature would have an adverse effect on the destruction efficiency of the Incinerator as the VOC oxidation rate is a function of the flame intensity and temperature. The VOCs that are being controlled are comprised of HAP emissions, thereby aggravating the negative environmental impact of trading VOC reductions for NOx reductions.

In addition, Pioneer evaluated post combustion NOx controls and the possibility of firing natural gas in the Incinerator. However, given the small quantity of actual NOx being emitted, the costs were determined by Pioneer to be uneconomical.

Pioneer has proposed that the most practical way to reduce NOx emissions from the Incinerator would be to lower the heat input requirements from the #6 oil burner, thereby reducing fuel oil consumption. This can be accomplished by reducing the flow rate of the VOC-laden air fed to the Incinerator. Pioneer has tightened up leaks which have been found at expansion joints in the duct work, as well as replaced switches which control the flow of exhaust from the coaters to the ventilation system. In addition,

Pioneer performs annual internal inspections of the duct work, and adjusts the burner components to maintain good combustion efficiency.

In conclusion, Pioneer determined that the Incinerator as configured and operated employs RACT by not compromising the Incinerator's VOC destruction efficiency.

3. Boiler #6

Boiler #6 meets the definition of a "Mid-Size" boiler as outlined in Section 2 of Chapter 138. The RACT standards for mid-size boilers which are located in moderate nonattainment areas requires compliance with a NOx emission limit of 0.30 lb/MMBtu (firing oil) unless the facility installs low NOx burners or equivalent strategies. As described in section 2(C) of this license, Pioneer has optimized the existing combustion equipment to achieve NOx performance equivalent to a low NOx burner. Therefore, Pioneer has proposed that the BACT requirements as specified in this license, meet the requirements of NOx RACT for Boiler #6.

4. Diesel Engine (Fire Pump)

The Diesel Engine (Fire Pump) is classified as a "miscellaneous source" subject to an alternative RACT determination under Chapter 138. The Fire Pump is used by Pioneer to supply water to the facility's sprinkler system in the event of a fire. The Diesel Engine is test-fired periodically, but usually never operates more than 50 hours per year. Pioneer has elected to satisfy the alternative RACT requirement by limiting the potential NOx emissions from the Diesel Engine to less than ten tons per year. By doing so, the Diesel Engine is exempt from NOx RACT requirements pursuant to Section 1.B.1. of Chapter 138. In order to limit NOx emissions from the Diesel Engine to less than 10 tons per year, operation of the Diesel Engine will be limited to 2,292 hours per year.

Based on the NOx RACT application submitted to the Department on February 2, 1995, and the supplemental information submitted on May 23, 1995, the Department finds that Pioneer meets the requirements of NOx RACT as specified in Chapter 138.

E. Non-CTG VOC RACT, Chapter 134

As discussed above in section II.D, BPT for sources located in a designated non-attainment area requires a demonstration that emissions are receiving RACT. Under the pre-1990 amended Clean Air Act, major sources covered by an EPA Control Technique Guideline (CTG) document were subject to RACT.

In summary the applicant has made a demonstration that the facility in its current or proposed configuration will not cause or contribute to a violation of MAAQS or Class I and Class II increments.

ORDER

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

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

The Department hereby grants Air Emission License A-448-72-K-A/R, subject to the following standard conditions (1)-(11) and specific conditions (12)-(24):

- (1) Employees and authorized representatives of the Department shall be allowed access to the premises of the licensee during business hours, or any time during which any of the licensed emissions units are in operation, and at such other times as the Commissioner deems necessary for the purpose of performing tests, collecting samples, conducting inspections or examining records relating to emissions.
 - (2) The licensee shall acquire a new or amended emission license prior to commencing construction of a modification.
 - (3) The licensee shall comply with all applicable ambient air quality standards, emission standards, Department regulations and orders.
 - (4) The licensee shall maintain sufficient records to accurately document compliance with emission standards, including visible emission, and license conditions and shall maintain such records for a minimum of 6 years. The records shall be submitted to the Department upon written request.
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- (5) The licensee shall maintain records of malfunctions, failures, downtime, and any other change in operation of air pollution control apparatus or the emissions unit itself that would affect emissions. The licensee shall notify the Department within two working days (48 hrs.) of such occasions. Within 5 working days, the licensee shall submit a written report describing the cause, duration, remedial action, and steps to be taken to prevent recurrence of such malfunctions, failures or downtimes.
 - (6) Approval to construct shall become invalid if the source has not commenced construction within 18 months after receipt of such approval or if construction is discontinued for a period of 18 months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology requirements or the ambient air quality impact analysis, or both.
 - (7) The licensee shall perform stack testing and submit a written report within 90 days of receipt of notice to test from the Department, 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. Such testing shall be conducted in accordance with 40 CFR Part 60 or other method approved or required by the Department. The licensee shall install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing.
 - (8) The licensee shall establish and maintain a continuing program for best management practices for suppression of fugitive particulate matter during any periods of construction, renovation, or normal operation which may result in fugitive dust and submit a description of the program upon request by the Department.
 - (9) The licensee shall maintain sufficient records and annually report to the Department, in a specified format, fuel use, operating rates, use of materials and other information necessary to accurately update the State's emission inventory.
 - (10) The granting of this permit is dependent upon and limited to the proposals and plans contained in the application and supporting documents submitted and affirmed to by the applicant. Any variation from the plans, proposals, and supporting documents must be reviewed and approved by the Department prior to implementation.
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(11) Within 60 days receipt of a notification to test from the Department or EPA, or pursuant to any other requirement of this license to perform stack testing, the licensee shall perform stack testing in accordance with the Department's air emission compliance test protocol, and demonstrate compliance with the applicable emission standards. All testing performed pursuant to this condition shall be conducted under circumstances representative of the facility's normal process and operating conditions. Test results indicating emissions in excess of the applicable standards shall be evidence of emission violations subject to enforcement action for each operating day from the date of the test until compliance is demonstrated under normal and representative process and operating conditions. For any emission source whose stack test results yield an emission rate greater than the applicable standard, the licensee shall, within 30 days following receipt of such test results, retest the noncomplying emission source. Any such retesting shall be performed under circumstances representative of the facility's normal process and operating conditions.

(12) Boiler #4

a. Boiler #4 shall not exceed the following emission limitations:

<u>Pollutant</u>	<u>lb/MMBtu</u>	<u>lb/hr</u>	<u>TPY</u>
PM	0.20	11.1	33
PM ₁₀	0.20	11.1	33
SO ₂	2.23	123.8	368
NO _x	0.60	33.3	99
CO	0.40	22.2	66
VOC	0.01	0.6	2

- b. The maximum heat input capacity of Boiler #4 shall not exceed 55.5 MMBtu/hr.
- c. Boiler #4 shall not exceed a fuel use cap of 2,200,000 gallons/year (12 month rolling total) of fuel oil.
- d. The sulfur content of the fuel oil fired in Boiler #4 shall not exceed 2.0% by weight.
- e. Pioneer shall perform an annual tune-up on Boiler #4, which includes the following:
1. A tune-up procedure file must be kept on-site and made available to the Department upon request;
 2. An oxygen/carbon monoxide curve or an oxygen/smoke curve must be kept on file;

3. Once the optimum excess oxygen setting has been determined, the owner or operator of a source must periodically verify that the setting remains at that value; and
 4. If the minimum oxygen level found is substantially higher than the value provided by the combustion unit manufacturer, the owner or operator must improve the fuel and air mixing, thereby allowing operation with less air.
- f. Visible emissions from Boiler #4 shall not exceed 30% opacity except for 15 minutes in any continuous 3 hour period.

(13) Incinerator

- a. The Incinerator shall not exceed the following emission limitations:

<u>Pollutant</u>	<u>lb/hr</u>	<u>TPY</u>
PM	11.9	52.1
PM ₁₀	11.9	52.1
SO ₂	88.1	385.9
NO _x	23.7	103.8
CO	60.0	262.8
VOC	30.0	131.4

Note: Condition (22) below contains VOC limitations on paper coating operations which include provisions on the Incinerator (i.e., minimum combustion temperature and VOC limitations).

- b. The maximum heat input capacity of the Incinerator from fuel oil firing shall not exceed 39.5 MMBtu/hr.
- c. The sulfur content of the fuel oil fired in the Incinerator shall not exceed 2.0% by weight.
- d. Visible emissions from the Incinerator shall not exceed 20% opacity (six minute average).
- e. Particulate emissions from the Incinerator shall not exceed 0.2 gr/dscf corrected to 12% CO₂ without the contribution of CO₂ from auxiliary fuel. The contribution of CO₂ from the fuel oil fired in the Incinerator shall be included when correcting for CO₂.

- f. Compliance with the NOx and particulate matter emission limits shall be based on a stack test conducted in accordance with the appropriate EPA test method (40 CFR, Part 60, Appendix A or another method approved by the Department) by May 31, 1996 and by May 31st and every year thereafter.

Pioneer shall prepare a report for the required stack testing, including a description of the test procedures, test results, and source operations and submit the report to the Department within 30 days of the test.

Pioneer may apply to amend the license to reduce the frequency of emission stack testing upon successful compliance demonstration of two consecutive annual stack tests.

- g. Pioneer shall perform annual internal inspections of the duct work and the burner components to maintain good combustion efficiency and maintain records of these inspections. In addition, Pioneer shall inspect the seals around access doors, inspection doors, and blowout doors on an annual basis.

(14) Boiler #6

- a. Boiler #6 shall not exceed the following emission limitations while firing fuel oil:

<u>Pollutant</u>	<u>lb/MMBtu</u>	<u>lb/hr</u>
PM	0.15	14.5
PM ₁₀	0.15	14.5
SO ₂	0.73	70.7
NO _x	0.47	45.5
CO	0.17	16.5
VOC	0.01	1.0

- b. The maximum heat input capacity of Boiler #6 from fuel oil firing shall not exceed 96.6 MMBtu/hr.
- c. The sulfur content of the fuel oil fired in Boiler #6 shall not exceed 0.7% by weight.
- d. Pioneer shall burn natural gas whenever gas is available at the interruptable gas rate, except where gas cannot be used due to maintenance or construction activities. Pioneer will provide written notice to the Department when maintenance or construction activities interfere with the burning of natural gas.

- e. Boiler #6 shall not exceed the following emission limitations while firing natural gas:

<u>Pollutant</u>	<u>lb/MMBtu</u>	<u>lb/hr</u>
PM	0.02	1.9
PM ₁₀	0.02	1.9
SO ₂	0.01	1.0
NO _x	0.15	14.5
CO	0.17	16.5
VOC	0.01	1.0

- f. The maximum heat input capacity of Boiler #6 from natural gas firing shall not exceed 96.8 MMBtu/hr.
- g. Total annual emissions from Boiler #6 may not exceed:

<u>Pollutant</u>	<u>TPY</u>
PM	27.7
PM ₁₀	27.7
SO ₂	135.3
NO _x	86.6
CO	98.3
VOC	6.9

- h. Visible emissions from Boiler #6 shall not exceed 30% opacity except for 15 minutes in any continuous 3 hour period.
- i. Consumption of natural gas and fuel oil in Boiler #6 during any 12 month rolling total shall not exceed limits determined by the following equations:
1. $\text{scf NG limit} = (1.11 \times 10^9) - (451.92 \times \text{gallons of fuel oil used})$; and
 2. $\text{gallons of fuel oil limit} = (2.45 \times 10^6) - (2.21 \times 10^{-3} \times \text{scf NG used})$
- j. Compliance with the particulate matter emission limits (lb/MMBtu and lb/hr, for fuel oil firing only) shall be based on a stack test conducted in accordance with the appropriate EPA test method (40 CFR, Part 60, Appendix A or another method approved by the Department) by May 31, 1996.

Pioneer shall prepare a report for the required stack testing, including a description of the test procedures, test results, and source operations and submit the report to the Department within 30 days of the test.

- k. Compliance with the NO_x emission limits (lb/MMBtu and lb/hr, for fuel oil firing only) shall be based on a stack test conducted in accordance with the appropriate EPA test methods (40 CFR, Part 60, Appendix A) by May 31, 1996 and by May 31st and every year thereafter.

Pioneer shall prepare a report for the required stack testing, including a description of the test procedures, test results, and source operations and submit the report to the Department within 30 days of the test.

Pioneer may apply to amend the license to reduce the frequency of emission stack testing upon successful compliance demonstration of two consecutive annual stack tests.

- (15) Visible emissions from the combined stack (stack #1) for Boilers #4 and #6 and the Incinerator, shall not exceed 30% opacity for more than 20 minutes in any continuous 3 hour period.
- (16) Boilers #7 and #8
- a. Boilers #7 and #8 shall not exceed the following emission limitations:

Pollutant	lb/MMBtu-each	Boiler #7	Boiler #8	TPY-total
		lb/hr	lb/hr	
PM	0.02	0.06	0.10	0.7
PM ₁₀	0.02	0.06	0.10	0.7
SO ₂	0.01	0.03	0.05	0.4
NO _x	0.20	0.56	1.0	6.8
CO	0.40	1.12	2.0	13.7
VOC	0.01	0.03	0.05	0.4

- b. The maximum heat input capacities of Boilers #7 and #8 shall not exceed 2.79 and 5.0 MMBtu/hr, respectively.
- c. Boilers #7 and #8 shall fire natural gas only, except for any related pilot light which may fire propane gas.
- d. Visible emissions from the combined stack (stack #2), for Boilers #7 and #8, shall not exceed 10% opacity except for 5 minutes in any continuous 1 hour period.

(17) Diesel Engine (Fire Pump)

- a. Pioneer shall limit NOx emissions from the Diesel Engine to less than 10 tons per year.
- b. Pioneer shall not operate the Diesel Engine for more than 2,292 hours in any 12 month rolling period. To provide means for determining compliance with this limit, Pioneer shall either maintain a meter on the engine which automatically displays cumulative operating time, or manually record periods of operation in a log book.
- c. Visible emissions from the Fire Pump shall not exceed 30% opacity except for 15 minutes in any continuous 3 hour period.

(18) Reactors

- a. At all times that K3, K4, K5, K6, K7, and K8 are on-line, Pioneer shall vent the emissions from the main outlet vent on each reactor to the Incinerator for destruction, except such emissions may be vented to the Wet Scrubber system for up to 300 hours a year.
- b. Pioneer shall maintain a log detailing the period of time in hours and minutes, that such emissions receive control by the use of the wet scrubber system. Pioneer shall maintain such records for a minimum of 6 years and shall be submitted to the Bureau of Air Quality Control upon request.
- c. Visible emissions from K1, K2, K3, K4, K5, K6, K7 and K8 shall be limited to 20% opacity except for 5 minutes in any 1 hour period.
- d. Particulate emissions from K1, K2, K3, K4, K5, K6, K7 and K8 shall be limited to the applicable limitation from Table 105A or the formula in Section 4 of Chapter 105.

(19) Routers, Table Saws and Sanders

- a. Visible emissions from each of the respective Pioneer routing, cutting and sanding baghouses shall be limited to 10% opacity except for 5 minutes in any 1 hour period.
- b. Particulate emissions from the routers, table saws and sanders shall be limited to the applicable limitation from Table 105A or the formula in Section 4 of Chapter 105.

3. Supply a solvent spray that is a solid fluid stream (not a fine, atomized, or shower-type spray) at a pressure that does not exceed ten psig;
4. Minimize the drafts across the top of the cold cleaning degreaser such that whenever the cover is open, the cold cleaning degreaser is not exposed to drafts greater than forty meters per minute (131.2 feet per minute), as measured between one and two meters (3.28 and 6.56 feet) upwind, and at the same elevation as the tank lip; and
5. Not operate the cold cleaning degreaser upon the occurrence of any visible solvent leak until such leak is repaired.

(24) The term of this license shall be five years from the signature date below.

DONE AND DATED IN AUGUSTA, MAINE THIS 23rd DAY OF August 1995.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Edward O. Sullivan
EDWARD O. SULLIVAN, COMMISSIONER

PLEASE NOTE THE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application June 8, 1987

Date of application acceptance June 17, 1987

Date filed with the Board of Environmental Protection N/A

This Order prepared by Kim Hibbard, Bureau of Air Quality Control