

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION

April 6, 2017

PERMIT TO INSTALL  
514-95B

ISSUED TO  
Dunn Paper, Inc.

LOCATED AT  
218 Riverview Street  
Port Huron, Michigan

IN THE COUNTY OF  
Saint Clair

STATE REGISTRATION NUMBER  
A6218

The Air Quality Division has approved this Permit to Install, pursuant to the delegation of authority from the Michigan Department of Environmental Quality. This permit is hereby issued in accordance with and subject to Section 5505(1) of Article II, Chapter I, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Pursuant to Air Pollution Control Rule 336.1201(1), this permit constitutes the permittee's authority to install the identified emission unit(s) in accordance with all administrative rules of the Department and the attached conditions. Operation of the emission unit(s) identified in this Permit to Install is allowed pursuant to Rule 336.1201(6).

DATE OF RECEIPT OF ALL INFORMATION REQUIRED BY RULE 203:

**November 15, 2016**

DATE PERMIT TO INSTALL APPROVED:

**April 6, 2017**

SIGNATURE:



DATE PERMIT VOIDED:

SIGNATURE:

DATE PERMIT REVOKED:

SIGNATURE:

**PERMIT TO INSTALL**

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**Common Abbreviations / Acronyms**

<b>Common Acronyms</b>		<b>Pollutant / Measurement Abbreviations</b>	
AQD	Air Quality Division	acfm	Actual cubic feet per minute
BACT	Best Available Control Technology	BTU	British Thermal Unit
CAA	Clean Air Act	°C	Degrees Celsius
CAM	Compliance Assurance Monitoring	CO	Carbon Monoxide
CEM	Continuous Emission Monitoring	CO <sub>2e</sub>	Carbon Dioxide Equivalent
CFR	Code of Federal Regulations	dscf	Dry standard cubic foot
COM	Continuous Opacity Monitoring	dscm	Dry standard cubic meter
Department/ department	Michigan Department of Environmental Quality	°F	Degrees Fahrenheit
EU	Emission Unit	gr	Grains
FG	Flexible Group	HAP	Hazardous Air Pollutant
GACS	Gallons of Applied Coating Solids	Hg	Mercury
GC	General Condition	hr	Hour
GHGs	Greenhouse Gases	HP	Horsepower
HVLP	High Volume Low Pressure*	H <sub>2</sub> S	Hydrogen Sulfide
ID	Identification	kW	Kilowatt
IRSL	Initial Risk Screening Level	lb	Pound
ITSL	Initial Threshold Screening Level	m	Meter
LAER	Lowest Achievable Emission Rate	mg	Milligram
MACT	Maximum Achievable Control Technology	mm	Millimeter
MAERS	Michigan Air Emissions Reporting System	MM	Million
MAP	Malfunction Abatement Plan	MW	Megawatts
MDEQ	Michigan Department of Environmental Quality	NMOC	Non-methane Organic Compounds
MSDS	Material Safety Data Sheet	NO <sub>x</sub>	Oxides of Nitrogen
NA	Not Applicable	ng	Nanogram
NAAQS	National Ambient Air Quality Standards	PM	Particulate Matter
NESHAP	National Emission Standard for Hazardous Air Pollutants	PM <sub>10</sub>	Particulate Matter equal to or less than 10 microns in diameter
NSPS	New Source Performance Standards	PM <sub>2.5</sub>	Particulate Matter equal to or less than 2.5 microns in diameter
NSR	New Source Review	pph	Pounds per hour
PS	Performance Specification	ppm	Parts per million
PSD	Prevention of Significant Deterioration	ppmv	Parts per million by volume
PTE	Permanent Total Enclosure	ppmw	Parts per million by weight
PTI	Permit to Install	psia	Pounds per square inch absolute
RACT	Reasonable Available Control Technology	psig	Pounds per square inch gauge
ROP	Renewable Operating Permit	scf	Standard cubic feet
SC	Special Condition	sec	Seconds
SCR	Selective Catalytic Reduction	SO <sub>2</sub>	Sulfur Dioxide
SNCR	Selective Non-Catalytic Reduction	TAC	Toxic Air Contaminant
SRN	State Registration Number	Temp	Temperature
TEQ	Toxicity Equivalence Quotient	THC	Total Hydrocarbons
USEPA/EPA	United States Environmental Protection Agency	tpy	Tons per year
VE	Visible Emissions	µg	Microgram
		µm	Micrometer or Micron
		VOC	Volatile Organic Compounds
		yr	Year

\*For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 psig.

### GENERAL CONDITIONS

1. The process or process equipment covered by this permit shall not be reconstructed, relocated, or modified, unless a Permit to Install authorizing such action is issued by the Department, except to the extent such action is exempt from the Permit to Install requirements by any applicable rule. **(R 336.1201(1))**
2. If the installation, construction, reconstruction, relocation, or modification of the equipment for which this permit has been approved has not commenced within 18 months, or has been interrupted for 18 months, this permit shall become void unless otherwise authorized by the Department. Furthermore, the permittee or the designated authorized agent shall notify the Department via the Supervisor, Permit Section, Air Quality Division, Michigan Department of Environmental Quality, P.O. Box 30260, Lansing, Michigan 48909-7760, if it is decided not to pursue the installation, construction, reconstruction, relocation, or modification of the equipment allowed by this Permit to Install. **(R 336.1201(4))**
3. If this Permit to Install is issued for a process or process equipment located at a stationary source that is not subject to the Renewable Operating Permit program requirements pursuant to R 336.1210, operation of the process or process equipment is allowed by this permit if the equipment performs in accordance with the terms and conditions of this Permit to Install. **(R 336.1201(6)(b))**
4. The Department may, after notice and opportunity for a hearing, revoke this Permit to Install if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of this permit or is violating the Department's rules or the Clean Air Act. **(R 336.1201(8), Section 5510 of Act 451, PA 1994)**
5. The terms and conditions of this Permit to Install shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by this Permit to Install. If the new owner or operator submits a written request to the Department pursuant to R 336.1219 and the Department approves the request, this permit will be amended to reflect the change of ownership or operational control. The request must include all of the information required by subrules (1)(a), (b), and (c) of R 336.1219 and shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environmental Quality. **(R 336.1219)**
6. Operation of this equipment shall not result in the emission of an air contaminant which causes injurious effects to human health or safety, animal life, plant life of significant economic value, or property, or which causes unreasonable interference with the comfortable enjoyment of life and property. **(R 336.1901)**
7. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the Department. The notice shall be provided not later than two business days after start-up, shutdown, or discovery of the abnormal condition or malfunction. Written reports, if required, must be filed with the Department within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal condition or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5). **(R 336.1912)**
8. Approval of this permit does not exempt the permittee from complying with any future applicable requirements which may be promulgated under Part 55 of 1994 PA 451, as amended or the Federal Clean Air Act.
9. Approval of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.
10. Operation of this equipment may be subject to other requirements of Part 55 of 1994 PA 451, as amended and the rules promulgated thereunder.

11. Except as provided in subrules (2) and (3) or unless the special conditions of the Permit to Install include an alternate opacity limit established pursuant to subrule (4) of R 336.1301, the permittee shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of density greater than the most stringent of the following. The grading of visible emissions shall be determined in accordance with R 336.1303. **(R 336.1301)**
  - a) A six-minute average of 20 percent opacity, except for one six-minute average per hour of not more than 27 percent opacity.
  - b) A visible emission limit specified by an applicable federal new source performance standard.
  - c) A visible emission limit specified as a condition of this Permit to Install.
  
12. Collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in R 336.1370(2). **(R 336.1370)**
  
13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with R 336.2001 and R 336.2003, under any of the conditions listed in R 336.2001. **(R 336.2001)**

### SPECIAL CONDITIONS

#### EMISSION UNIT SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Emission Unit ID	Emission Unit Description (Process Equipment & Control Devices)	Flexible Group ID
EU00001	A 68 MMBtu/hr Combustion Engineering boiler which is capable of firing natural gas, No. 2 fuel oil and No. 6 fuel oil.	FGBOILERS
EU00017	A 94.7 MMBtu/hr Nebraska Power boiler which is capable of firing natural gas and No. 2 fuel oil.	FGBOILERS
Changes to the equipment described in this table are subject to the requirements of R 336.1201, except as allowed by R 336.1278 to R 336.1290.		

**The following conditions apply to:**  
**EU00001**

**DESCRIPTION:** A 68 MMBtu/hr Combustion Engineering boiler which is capable of firing natural gas, No. 2 fuel oil and No. 6 fuel oil.

**Flexible Group ID:** FGBOILERS

**POLLUTION CONTROL EQUIPMENT:** Boiler combustion controls

**I. EMISSION LIMITS**

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. SO <sub>2</sub>	1.56 lb/MMBtu <sup>a</sup>	Test Protocol*	EU00001	SC V.1	R 336.1401, R 336.1205(1)(a) and (b), 40 CFR 52.21(c) and (d)
2. SO <sub>2</sub>	0.37 lb/MMBtu <sup>b</sup>	Test Protocol*	EU00001	SC V.1	R 336.1401, R 336.1205(1)(a) and (b), 40 CFR 52.21(c) and (d)
3. NO <sub>x</sub>	0.36 lb/MMBtu <sup>a</sup>	Test Protocol*	EU00001	SC V.1	R 336.1205(1)(a) and (b)
4. NO <sub>x</sub>	0.143 lb/MMBtu <sup>b</sup>	Test Protocol*	EU00001	SC V.1	R 336.1205(1)(a) and (b)
5. NO <sub>x</sub>	0.098 lb/MMBtu <sup>c</sup>	Test Protocol*	EU00001	SC V.1	R 336.1205(1)(a) and (b)
6. CO	0.036 lb/MMBtu <sup>a&amp;b</sup>	Test Protocol*	EU00001	SC V.1	R 336.1205(1)(a) and (b)
7. CO	0.0824 lb/MMBtu <sup>c</sup>	Test Protocol*	EU00001	SC V.1	R 336.1205(1)(a) and (b)

<sup>a</sup> When firing No. 6 fuel oil.  
<sup>b</sup> When firing No. 2 fuel oil.  
<sup>c</sup> When firing natural gas.  
 \* Test protocol shall specify averaging time

**II. MATERIAL LIMITS**

Material	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Sulfur content of No. 6 fuel oil	1.50 weight percent	At all times	EU00001	SC V.2, SC VI.1, SC VI.3	R 336.1401, R 336.1205(1)(a) and (b), 40 CFR 52.21(c) and (d)
2. Sulfur content of No. 2 fuel oil	0.36 weight percent	At all times	EU00001	SC V.2, SC VI.1, SC VI.3	R 336.1401, R 336.1205(1)(a) and (b), 40 CFR 52.21(c) and (d)

**III. PROCESS/OPERATIONAL RESTRICTIONS**

1. During start-up of EU00001, the permittee shall use the natural gas burners to preheat the combustion zone prior to firing No. 6 fuel oil. **(R 336.1301)**

#### **IV. DESIGN/EQUIPMENT PARAMETERS**

1. The maximum design heat input capacity of EU00001 shall not exceed 68 MMBtu per hour. **(R 336.1205(1)(a) and (b), 40 CFR 52.21 (c) and (d))**
2. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to continuously monitor both the No. 6 fuel oil and No. 2 fuel oil usage rate in EU00001. **(R 336.1205(1)(a) and (b), 40 CFR 52.21 (c) and (d))**
3. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to continuously monitor the natural gas usage rate in EU00001. **(R 336.1205(1)(a) and (b), 40 CFR 52.21 (c) and (d))**

#### **V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. Upon request from the AQD District Supervisor, the permittee may be required to verify SO<sub>2</sub>, NO<sub>x</sub>, and CO emission rates from EU00001 by testing at owner's expense, in accordance with Department requirements. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1401, R 336.1205(1)(a) and (b), 40 CFR 52.21(c) and (d))**
2. Upon request from the AQD District Supervisor, the permittee shall verify the sulfur content of the No. 6 fuel oil and No. 2 fuel oil by testing at owner's expense, in accordance with Department requirements. **(R 336.1401, R 336.1205(1)(a) and (b), 40 CFR 52.21(c) and (d))**

#### **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall monitor and record, in a satisfactory manner, the sulfur content of the fuel oil, and the type of fuel oil burned in EU00001 on a daily basis. **(R 336.1205(1)(a) and (b), 40 CFR 52.21 (c) and (d))**
2. The permittee shall monitor and record, in a satisfactory manner, the amount of No. 6 fuel oil and the amount of No. 2 fuel oil burned in EU00001 on a daily basis, in gallons per day. **(R 336.1205(1)(a) and (b), 40 CFR 52.21 (c) and (d))**
3. The permittee shall keep a complete copy of both the No. 6 and No. 2 fuel oil analysis including the sulfur content in percent, as supplied by the vendor, for each shipment of fuel oil received. The permittee shall keep all records on file at the facility for a period of at least five years and make them available to the Department upon request. **(R 336.1205(1)(a) and (b), R336.1401)**
4. The permittee shall keep monthly No. 6 and No. 2 fuel oil usage records, in a format acceptable to the AQD District Supervisor, indicating the amount of No. 6 and No. 2 fuel oil used in EU00001, in gallons, on a calendar month basis and a 12-month rolling time period basis. The permittee shall keep all records on file at the facility for a period of at least five years and make them available to the Department upon request. **(R 336.1205(1)(a) and (b), 40 CFR 52.21 (c) and (d))**
5. The permittee shall keep natural gas usage records, in a format acceptable to the AQD District Supervisor, indicating the amount of natural gas used in EU00001, in cubic feet, on a calendar month basis and a 12-month rolling time period basis. The permittee shall keep all records on file at the facility for a period of at least five years and make them available to the Department upon request. **(R 336.1205(1)(a) and (b), 40 CFR 52.21 (c) and (d))**

**VII. REPORTING**

NA

**VIII. STACK/VENT RESTRICTIONS**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Diameter/Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. SV00001	64	110	40 CFR 52.21 (c) and (d)

**IX. OTHER REQUIREMENTS**

NA

**The following conditions apply to:**  
**EU00017**

**DESCRIPTION:** A 94.7 MMBtu/hr Nebraska Power boiler which is capable of firing natural gas and No. 2 fuel oil.

**Flexible Group ID:** FGBOILERS

**POLLUTION CONTROL EQUIPMENT:** Low NOx burner and boiler combustion controls

**I. EMISSION LIMITS**

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. SO <sub>2</sub>	0.37 lb/MMBtu <sup>b</sup>	Test Protocol*	EU00017	SC V.1	R 336.1401, R 336.1205(1)(a) and (b), 40 CFR 52.21(c) and (d)
2. NO <sub>x</sub>	0.143 lb/MMBtu <sup>b</sup>	Test Protocol*	EU00017	SC V.1	R 336.1205(1)(a) and (b)
3. NO <sub>x</sub>	0.042 lb/MMBtu <sup>c</sup>	Test Protocol*	EU00017	SC V.1	R 336.1205(1)(a) and (b)
4. CO	0.036 lb/MMBtu <sup>b</sup>	Test Protocol*	EU00017	SC V.1	R 336.1205(1)(a) and (b)
5. CO	0.15 lb/MMBtu <sup>c</sup>	Test Protocol*	EU00017	SC V.1	R 336.1205(1)(a) and (b)
<sup>b</sup> When firing No. 2 fuel oil. <sup>c</sup> When firing natural gas. * Test protocol shall specify averaging time					

6. Visible Emissions from EU00017 shall not exceed 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity. **(40 CFR 60.43c(c))**

**II. MATERIAL LIMITS**

Material	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Sulfur content of No. 2 fuel oil	0.36 weight percent	At all times	EU00017	SC V.2, SC VI.1, SC VI.4	R 336.1401, R 336.1205(1)(a) and (b), 40 CFR 52.21(c) and (d), 40 CFR 60.42c(d) <sup>d</sup> , 40 CFR 60.42c(h)(1) <sup>d</sup>
<sup>d</sup> The sulfur content limit as required in 40 CFR 60.42c(d) is 0.5 weight percent. SC II.1 subsumes the NSPS limit.					

**III. PROCESS/OPERATIONAL RESTRICTIONS**

NA

#### **IV. DESIGN/EQUIPMENT PARAMETERS**

1. The maximum design heat input capacity of EU00017 shall not exceed 94.7 MMBtu per hour. **(R 336.1205(1)(a) and (b), 40 CFR 52.21 (c) and (d), 40 CFR Part 60 Subparts Dc)**
2. The permittee shall not operate EU00017 unless the low NO<sub>x</sub> burner is installed, maintained and operated in a satisfactory manner. **(R 336.1205(1)(a) and (b))**
3. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to continuously monitor the No. 2 fuel oil usage rate in EU00017. **(R 336.1205(1)(a) and (b), 40 CFR 52.21 (c) and (d))**
4. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to continuously monitor the natural gas usage rate in EU00017. **(R 336.1205(1)(a) and (b), 40 CFR 52.21 (c) and (d))**

#### **V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. Upon request from the AQD District Supervisor, the permittee may be required to verify SO<sub>2</sub>, NO<sub>x</sub>, and CO emission rates from EU00017 by testing at owner's expense, in accordance with Department requirements. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1401, R 336.1205(1)(a) and (b), 40 CFR 52.21(c) and (d))**
2. Upon request from the AQD District Supervisor, the permittee shall verify the sulfur content of the No. 2 fuel oil by testing at owner's expense, in accordance with Department requirements. **(R 336.1401, R 336.1205(1)(a) and (b), 40 CFR 52.21(c) and (d))**

#### **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall monitor and record, in a satisfactory manner, the sulfur content of the fuel oil burned in EU00017 on a daily basis. **(R 336.1205(1)(a) and (b), 40 CFR 52.21 (c) and (d))**
2. The permittee shall monitor and record, in a satisfactory manner, the amount of No. 2 fuel oil burned in EU00017 on a daily basis, in gallons per day. **(R 336.1205(1)(a) and (b), 40 CFR 52.21 (c) and (d))**
3. Monitoring and recording of emissions and operating information is required to comply with the Federal Standards of Performance for New Stationary Sources as specified in 40 CFR, Part 60, Subparts A and Dc. All source emissions data and operating data shall be kept on file for a period of at least five years and made available to the Air Quality Division upon request. **(40 CFR Part 60 Subparts A and Dc)**
4. The permittee shall keep a complete copy of the No. 2 fuel oil analysis including the sulfur content in percent, as supplied by the vendor, for each shipment of fuel oil received. Fuel supplier certification shall include the following information:
  - a. The name of the oil supplier;
  - b. A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in §60.41c; and
  - c. The sulfur content or maximum sulfur content of the oil.

The permittee shall keep all records on file at the facility for a period of at least five years and make them available to the Department upon request. **(R 336.1205(1)(a) and (b), R336.1401, 40 CFR 60.42c(h)(1), 40 CFR 60.48c(f))**

5. The permittee shall keep monthly No. 2 fuel oil usage records, in a format acceptable to the AQD District Supervisor, indicating the amount of No. 2 fuel oil used in EU00017, in gallons, on a calendar month basis and a 12-month rolling time period basis. The permittee shall keep all records on file at the facility for a period of at least five years and make them available to the Department upon request. **(R 336.1205(1)(a) and (b), 40 CFR 52.21 (c) and (d), 40 CFR 60 Subpart Dc)**
6. The permittee shall keep natural gas usage records, in a format acceptable to the AQD District Supervisor, indicating the amount of natural gas used in EU00017, in cubic feet, on a calendar month basis and a 12-month rolling time period basis. The permittee shall keep all records on file at the facility for a period of at least five years and make them available to the Department upon request. **(R 336.1205(1)(a) and (b), 40 CFR 52.21 (c) and (d))**

## **VII. REPORTING**

1. The permittee shall submit applicable notifications and reports for EU00017 that are required by 40 CFR 60.48c. **(40 CFR Part 60 Subparts A and Dc, 40 CFR 60.48c)**

## **VIII. STACK/VENT RESTRICTIONS**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Diameter/Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. SV00017	42	75	40 CFR 52.21 (c) and (d)

## **IX. OTHER REQUIREMENTS**

1. The permittee shall comply with the provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60 Subpart A and Subpart Dc, as they apply to EU00017. **(40 CFR Part 60 Subparts A and Dc)**

### FLEXIBLE GROUP SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

<b>Flexible Group ID</b>	<b>Flexible Group Description</b>	<b>Associated Emission Unit IDs</b>
FGBOILERS	Two boilers. EU00001 is capable of firing natural gas, No. 2 fuel oil and No. 6 fuel oil. EU00017 is capable of firing natural gas and No. 2 fuel oil.	EU00001, EU00017
FGFACILITY	All process equipment source-wide including equipment covered by other permits, grand-fathered equipment and exempt equipment.	NA

**The following conditions apply to:**  
**FGBOILERS**

**DESCRIPTION:** Two boilers. EU00001 is capable of firing natural gas, No. 2 fuel oil and No. 6 fuel oil. EU00017 is capable of firing natural gas and No. 2 fuel oil.

**Emission Units:** EU00001, EU00017

**POLLUTION CONTROL EQUIPMENT:** Boiler combustion controls on each boiler, EU00017 also has low NOx burner

**I. EMISSION LIMITS**

<b>Pollutant</b>	<b>Limit</b>	<b>Time Period/ Operating Scenario</b>	<b>Equipment</b>	<b>Testing / Monitoring Method</b>	<b>Underlying Applicable Requirements</b>
1. SO <sub>2</sub>	89 tpy	12-month rolling time period as determined at the end of each calendar month	FGBOILERS	SC VI.3	R 336.1205(1)(a) and (b)
2. NO <sub>x</sub>	45.0 tpy	12-month rolling time period as determined at the end of each calendar month	FGBOILERS	SC VI.3	R 336.1205(1)(a) and (b)
3. CO	81.1 tpy	12-month rolling time period as determined at the end of each calendar month	FGBOILERS	SC VI.3	R 336.1205(1)(a) and (b)

**II. MATERIAL LIMITS**

NA

**III. PROCESS/OPERATIONAL RESTRICTIONS**

1. The permittee shall not fire fuel oil in both EU00001 and EU00017 at the same time. **(40 CFR 52.21 (c) and (d))**
2. The permittee shall not allow the combined number of hours of operation of the boilers in FGBOILERS to exceed 8,760 hours per 12-month rolling time period, as determined at the end of each calendar month. **(R 336.1205(1)(a) and (b))**

**IV. DESIGN/EQUIPMENT PARAMETERS**

NA

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor and make them available by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any recordkeeping, reporting or notification special condition. **(R 336.1205(1)(a) and (b))**
2. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period records of the combined hours of operation for FGBOILERS. **(R 336.1205(1)(a) and (b))**
3. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period SO<sub>2</sub>, NO<sub>x</sub>, and CO emission calculation records for FGBOILERS, as required by Appendix A. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1205(1)(a) and (b))**

**VII. REPORTING**

NA

**VIII. STACK/VENT RESTRICTIONS**

NA

**IX. OTHER REQUIREMENTS**

NA

**The following conditions apply Source-Wide to:**  
**FGFACILITY**

**DESCRIPTION:** All process equipment source-wide including equipment covered by other permits, grand-fathered equipment and exempt equipment.

**I. EMISSION LIMITS**

<b>Pollutant</b>	<b>Limit</b>	<b>Time Period / Operating Scenario</b>	<b>Equipment</b>	<b>Testing / Monitoring Method</b>	<b>Underlying Applicable Requirements</b>
1. SO <sub>2</sub>	99.9 tpy	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	SC VI.3	R 336.1205(1)(a) and (b)
2. NO <sub>x</sub>	99.9 tpy	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	SC VI.3	R 336.1205(1)(a) and (b)
3. CO	99.9 tpy	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	SC VI.3	R 336.1205(1)(a) and (b)

To establish the source-wide potential to emit of FGFACILITY for PTI 514-95B, emissions from all equipment in FGFACILITY were included in the calculations. For all exempt equipment, the potential emissions of SO<sub>2</sub>, NO<sub>x</sub>, and CO were calculated based on each piece of equipment operating at its maximum capacity for all hours of the year.

**II. MATERIAL LIMITS**

<b>Material</b>	<b>Limit</b>	<b>Time Period / Operating Scenario</b>	<b>Equipment</b>	<b>Testing / Monitoring Method</b>	<b>Underlying Applicable Requirements</b>
1. No. 2 Fuel Oil	3,450,000 gal/yr	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	SC VI.2	R 336.1205(1)(a) and (b)
2. No. 6 Fuel Oil	754,000 gal/yr	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	SC VI.2	R 336.1205(1)(a) and (b)

3. The natural gas burned at FGFACILITY shall be pipeline quality natural gas. **(R 336.1205(1)(a) and (b), 40 CFR 52.21(c) and (d))**

**III. PROCESS/OPERATIONAL RESTRICTIONS**

1. The permittee shall not burn No. 2 fuel oil and No. 6 fuel oil during the same 12-month rolling time period in FGFACILITY. **(R 336.1205(1)(a) and (b))**

**IV. DESIGN/EQUIPMENT PARAMETERS**

NA

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor and make them available by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any recordkeeping, reporting or notification special condition. **(R 336.1205(1)(a) and (b))**
2. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period fuel use records for No. 2 fuel oil, No. 6 fuel oil, and natural gas for FGFACILITY. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1205(1)(a) and (b))**
3. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period SO<sub>2</sub>, NO<sub>x</sub>, and CO emission calculation records for FGFACILITY, as required by SC I.1, I.2, I.3 and Appendix A. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1205(1)(a) and (b))**
4. The permittee shall keep, in a satisfactory manner, records showing the annual potential to emit calculations for SO<sub>2</sub>, NO<sub>x</sub>, and CO, in tons per year, for FGFACILITY. The permittee shall update the potential to emit calculation whenever a new permitted or exempt emission unit is installed, or whenever a permitted, exempt, or grandfathered emission unit is modified or removed. Potential to emit calculations shall be based on the maximum operational capacity of the equipment operated for the entire year, except they may account for applicable permit requirements or applicable laws or rules limiting the potential to emit. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1205(1)(a) and (b))**

**VII. REPORTING**

NA

**VIII. STACK/VENT RESTRICTIONS**

NA

**IX. OTHER REQUIREMENTS**

NA

**APPENDIX A**  
**Procedures for Calculating Facility SO<sub>2</sub>, NO<sub>x</sub> and CO Emissions**

The permittee shall demonstrate compliance with the SO<sub>2</sub>, NO<sub>x</sub> and CO emission limits by keeping track of all fuel usage for all fuel-burning equipment at this facility and multiplying that fuel usage by an equipment-specific emission factor for each fuel, and by the heat content of the fuel as follows, unless the permittee obtains the approval of the AQD District Supervisor to use another calculation method:

For No. 2 and No. 6 fuel oil:

$$\text{Emissions} \left( \frac{\text{tons}}{12 \text{ month rolling time period}} \right) =$$
$$\text{Fuel Usage} \left( \frac{\text{gal}}{12 \text{ month rolling time period}} \right) \times \text{Emission Factor} \left( \frac{\text{lb}}{\text{MMBtu}} \right) \times \text{Fuel Heat Content} \left( \frac{\text{MMBtu}}{\text{gal}} \right)$$

For natural gas:

$$\text{Emissions} \left( \frac{\text{tons}}{12 \text{ month rolling time period}} \right) =$$
$$\text{Fuel Usage} \left( \frac{\text{MMscf}}{12 \text{ month rolling time period}} \right) \times \text{Emission Factor} \left( \frac{\text{lb}}{\text{MMBtu}} \right) \times \text{Fuel Heat Content} \left( \frac{\text{MMBtu}}{\text{MMscf}} \right)$$

The permittee shall document the source and date of origin of the emission factors used in the calculations.

**FGBOILERS:**

The emission factors are typically expressed as a mass weight of pollutant per MMBtu. The permittee shall only use emission factors from equipment vendor guarantees or from source specific testing (stack testing) for EU00001 and EU00017. If other emission source values are used, the permittee shall obtain the approval of the AQD District Supervisor before using the emission factors to calculate emissions. The certificate of analysis and/or sulfur testing results for the fuel oil shall be provided to determine a lower SO<sub>2</sub> emission factor.

Heat content of fuel is typically expressed as BTU per gal or BTU per scf. Fuel heat content shall be determined based on fuel analysis or other fuel supplier data. If heat content values are based on another source, the permittee shall obtain the approval of the AQD District Supervisor before using the heat content to calculate emissions.

**All other fuel-burning equipment in FGFACILITY:**

The emission factors are typically expressed as a mass weight of pollutant per MMBtu. The permittee shall use emission factors contained in the most recent AP-42 (Compilation of Air Pollutant Emission Factors) or the most recent FIRE (Factor Information Retrieval) database, if equipment-specific vendor or stack data is not available. If other emission source values are used, the permittee shall obtain the approval of the AQD District Supervisor before using the emission factors to calculate emissions.

Heat content of fuel is typically expressed as BTU per gal or BTU per scf. Fuel heat content shall be determined based on fuel analysis or other fuel supplier data. If heat content values are based on another source, the permittee shall obtain the approval of the AQD District Supervisor before using the heat content to calculate emissions.