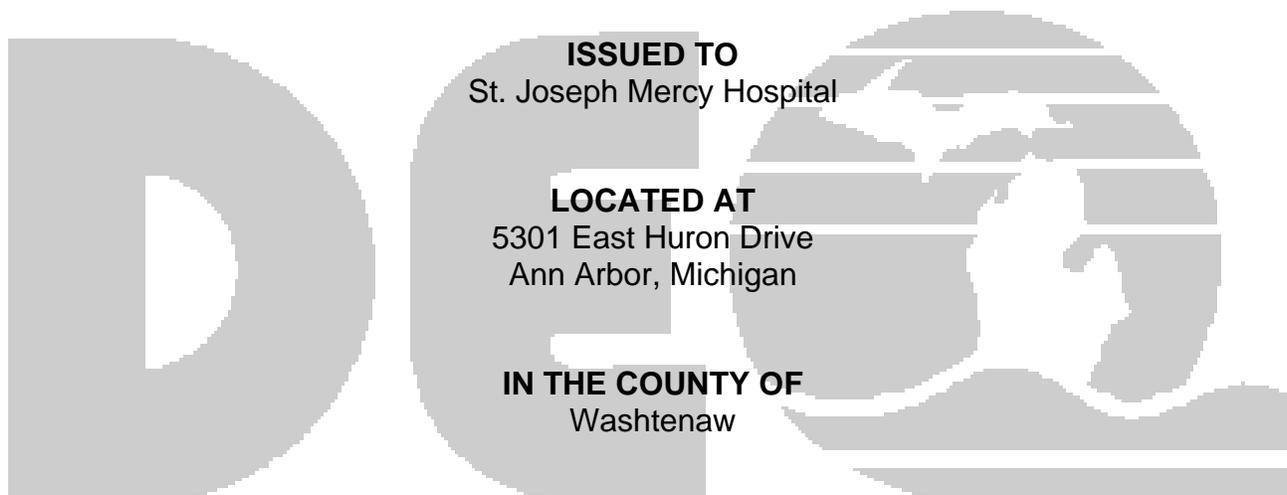


**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION**

December 8, 2009

**PERMIT TO INSTALL
318-74C**



**STATE REGISTRATION NUMBER
M3431**

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: October 29, 2009	
DATE PERMIT TO INSTALL APPROVED: December 8, 2009	SIGNATURE:
DATE PERMIT VOIDED:	SIGNATURE:
DATE PERMIT REVOKED:	SIGNATURE:

PERMIT TO INSTALL

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Common Abbreviations / Acronyms

Common Acronyms		Pollutant/Measurement Abbreviations	
AQD	Air Quality Division	BTU	British Thermal Unit
ANSI	American National Standards Institute	°C	Degrees Celsius
BACT	Best Available Control Technology	CO	Carbon Monoxide
CAA	Clean Air Act	dscf	Dry standard cubic foot
CEM	Continuous Emission Monitoring	dscm	Dry standard cubic meter
CFR	Code of Federal Regulations	°F	Degrees Fahrenheit
COM	Continuous Opacity Monitoring	gr	Grains
EPA	Environmental Protection Agency	Hg	Mercury
EU	Emission Unit	hr	Hour
FG	Flexible Group	H ₂ S	Hydrogen Sulfide
GACS	Gallon of Applied Coating Solids	hp	Horsepower
GC	General Condition	lb	Pound
HAP	Hazardous Air Pollutant	m	Meter
HVLP	High Volume Low Pressure *	mg	Milligram
ID	Identification	mm	Millimeter
LAER	Lowest Achievable Emission Rate	MM	Million
MACT	Maximum Achievable Control Technology	MW	Megawatts
MAERS	Michigan Air Emissions Reporting System	ng	Nanogram
MAP	Malfunction Abatement Plan	NO _x	Oxides of Nitrogen
MDEQ	Michigan Department of Environmental Quality	PM	Particulate Matter
MIOSHA	Michigan Occupational Safety & Health Administration	PM10	PM less than 10 microns diameter
MSDS	Material Safety Data Sheet	PM2.5	PM less than 2.5 microns diameter
NESHAP	National Emission Standard for Hazardous Air Pollutants	pph	Pound per hour
NSPS	New Source Performance Standards	ppm	Parts per million
NSR	New Source Review	ppmv	Parts per million by volume
PS	Performance Specification	ppmw	Parts per million by weight
PSD	Prevention of Significant Deterioration	psia	Pounds per square inch absolute
PTE	Permanent Total Enclosure	psig	Pounds per square inch gauge
PTI	Permit to Install	scf	Standard cubic feet
RACT	Reasonably Available Control Technology	sec	Seconds
ROP	Renewable Operating Permit	SO ₂	Sulfur Dioxide
SC	Special Condition	THC	Total Hydrocarbons
SCR	Selective Catalytic Reduction	tpy	Tons per year
SRN	State Registration Number	µg	Microgram
TAC	Toxic Air Contaminant	VOC	Volatile Organic Compounds
TEQ	Toxicity Equivalence Quotient	yr	Year
VE	Visible Emissions		

* For High Volume Low Pressure (HVLP) applicators, the pressure measured at the HVLP gun air cap shall not exceed ten (10) pounds per square inch gauge (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, 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
EUBOILER1	Cleaver/Brooks Packaged Watertube Boiler, Model DL-68-400-CN-5, 70.7 MM Btu/hr	FGBOILERS
EUBOILER2	Cleaver/Brooks Packaged Watertube Boiler, Model DL-68-400-CN-5, 70.7 MM Btu/hr	FGBOILERS
EUBOILER3	Cleaver/Brooks Packaged Watertube Boiler, Model DL-68-400-CN-5, 70.7 MM Btu/hr	FGBOILERS
EUENGINE1	Diesel fuel-fired reciprocating engine driving a generator to provide emergency electrical power for a hospital. The Cummins engine is rated at 2922 brake horsepower and the driven generator is rated at 2000 kW	FGENGINES
EUENGINE2	Diesel fuel-fired reciprocating engine driving a generator to provide emergency electrical power for a hospital. The Cummins engine is rated at 2922 brake horsepower and the driven generator is rated at 2000 kW	FGENGINES
EUENGINE3	Diesel fuel-fired reciprocating engine driving a generator to provide emergency electrical power for a hospital. The Cummins engine is rated at 2922 brake horsepower and the driven generator is rated at 2000 kW	FGENGINES
EUENGINE4	Diesel fuel-fired reciprocating engine driving a generator to provide emergency electrical power for a hospital. The Cummins engine is rated at 2922 brake horsepower and the driven generator is rated at 2000 kW	FGENGINES

FLEXIBLE GROUP SUMMARY TABLE

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

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGBOILERS	Three Cleaver/Brooks Packaged Watertube Boilers	EUBOILER1, EUBOILER2, EUBOILER3
FGENGINES	Four diesel fuel-fired reciprocating engines driving electric generators	EUENGINE1, EUENGINE2, EUENGINE3, EUENGINE4

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGFACILITY	All process equipment source-wide including equipment covered by other permits, grand-fathered equipment and exempt equipment.	EUBOILER1, EUBOILER2, EUBOILER3, EUENGINE1, EUENGINE2, EUENGINE3, EUENGINE4

The following conditions apply to: FGBOILERS

I. EMISSION LIMITS

NA

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall not burn any fuel in FGBOILERS other than natural gas or #2 fuel oil. [R 336.1205(3)]
2. The sulfur content of all fuel oil used in FGBOILERS shall not exceed 0.5 percent by weight. [R336.1205(3)]

IV. DESIGN/EQUIPMENT PARAMETERS

NA

V. TESTING/SAMPLING

NA

VI. MONITORING/RECORDKEEPING

NA

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:

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVBOILER1	48 ¹	50 ¹	R336.1225
2. SVBOILER2	48 ¹	50 ¹	R336.1225
3. SVBOILER3	48 ¹	50 ¹	R336.1225

IX. OTHER REQUIREMENTS

NA

Footnotes:

¹This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

The following conditions apply to: FGENGINES

I. EMISSION LIMITS

Pollutant	Limit (g/hp-hr)*	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. HC	1.0	Test Protocol	FGENGINES	VI.3.	40 CFR 60.4205(a)
2. NOx	6.9	Test Protocol	FGENGINES	VI.3.	40 CFR 60.4205(a)
3. CO	8.5	Test Protocol	FGENGINES	VI.3.	40 CFR 60.4205(a)
4. PM	0.4	Test Protocol	FGENGINES	VI.3.	40 CFR 60.4205(a)

*Emission limits are based on weighted average per the EPA-approved performance requirements of 40 CFR Part 60 Subpart IIII.

II. MATERIAL LIMITS

Material	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. diesel fuel	136,000 gallons	12-month rolling time period as determined at the end of each calendar month	FGENGINES	SC VI.1.	R 336.1205(3)

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall not operate any engine in FGENGINES for more than 876 hours per 12-month rolling time period as determined at the end of each calendar month. **(R 336.1205(3), R 336.1225)**
2. The permittee shall operate FGENGINES in compliance with the fuel requirements of 40 CFR 60.4207. **(40 CFR Part 60 Subpart IIII)**
3. The permittee shall operate and maintain FGENGINES according to the engine manufacturer's written instructions or alternate procedures approved by the engine manufacturer. **(40 CFR 60.4211(a))**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall equip and maintain each engine in FGENGINES with a non-resettable hour meter. **(40 CFR 60.4209)**

V. TESTING/SAMPLING

NA

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 hours of operation and gallons of diesel fuel used for each engine in FGENGINES on a monthly basis. **(R 336.1205(3))**

2. The permittee shall monitor emissions and operating information for FGEngines in accordance with the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60 Subparts A and IIII. The permittee shall keep records of all source emissions data and operating information on file at the facility and make them available to the Department upon request. **(40 CFR Part 60 Subparts A & IIII)**
3. The permittee shall maintain records of the engine manufacturer data required to comply with the emission standards of 40 CFR 60.4205(a). The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(40 CFR 60.4211(b)(3))**

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:

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVENGINE1	15.25	32	R 336.1225, 52.21(c) and (d)
2. SVENGINE2	15.25	32	R 336.1225, 52.21(c) and (d)
3. SVENGINE3	15.25	34	R 336.1225, 52.21(c) and (d)
4. SVENGINE4	15.25	34	R 336.1225, 52.21(c) and (d)

IX. OTHER REQUIREMENTS

1. The permittee shall meet the applicable requirements of 40 CFR parts 89 and 1068. **(40 CFR 60.4211(a))**

Footnotes:

¹This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

The following conditions apply Source-Wide to: FGFACILITY

I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. SO ₂	89.9 tpy	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	SC VI.1.	R336.1205(3)
2. NO _x	89.9 tpy	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	SC VI.1.	R336.1205(3)
3. each individual HAP	Less than 8.9 tpy.	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	SC VI.1.	R336.1205(3)
3. Aggregate HAPs	Less than 22.4 tpy.	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	SC VI.1.	R336.1205(3)

*This limit is based on an emission factor of the higher of 0.0001 pound NO_x per cubic foot of natural gas, or other factor as determined from testing pursuant to SC 1.5, and an emission factor of the higher of 0.02 pound NO_x per gallon of fuel oil, or other factor as determined from testing pursuant to SC V.1.

II. MATERIAL LIMITS

Material	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. fuel oil and natural gas	2,535,211 units	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	SC VI.1.	R336.1205(3)

Units of fuel used = A + B

A = The gallons of fuel oil used per 12-month rolling time period, as determined at the end of each calendar month.

B = The standard cubic feet of natural gas used per 12-month rolling time period, as determined at the end of each calendar month / 710

III. PROCESS/OPERATIONAL RESTRICTIONS

NA

IV. DESIGN/EQUIPMENT PARAMETERS

NA

V. TESTING/SAMPLING

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall keep monthly natural gas and fuel oil usage records, in a format acceptable to the AQD District Supervisor, indicating the amount of natural gas used, in cubic feet, and fuel oil used, in gallons, on a calendar month basis. The records must indicate the total amount of natural gas and fuel oil used in FGBOILERS and FGENGINES respectively. **[R336.1205(3)]**
2. The permittee shall calculate the SO₂ emission rates from FGFACILITY for each calendar month using the method in Appendix A and C. All records shall be kept on file for a period of at least five years and made available to the Department upon request. **[R336.1205(3)]**
3. The permittee shall calculate the NO_x emission rates from FGFACILITY for each calendar month and 12-month rolling time period, using the method in Appendix B and D. All records shall be kept on file for a period of at least five years and made available to the Department upon request. **[R336.1205(3)]**
4. The permittee shall keep the following information on a monthly basis for FGFACILITY:
 - a) Gallons or pounds of each material used.
 - b) Where applicable, gallons or pounds of each material reclaimed.
 - c) HAP content, in pounds per gallon or pounds per pound, of each material used.
 - d) Individual and aggregate HAP emission calculations determining the monthly emission rate of each in tons per calendar month.
 - e) Individual and aggregate HAP emission calculations determining the annual emission rate of each in tons per 12-month rolling time period as determined at the end of each calendar month.
5. The permittee shall obtain documentation of the sulfur content of each fuel oil delivery, as supplied by the fuel oil vendor, and maintain a copy on file for a period of five years. **[R336.1205(3)]**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

NA

IX. OTHER REQUIREMENTS

NA

APPENDIX A

Applicant shall calculate the SO₂ emissions from FGBOILERS using the following equation:

$$ESO2_{\text{monthly}} = F_{\text{fueloil}} * D * S * 2$$

Where:

“ESO₂monthly” is the emission of SO₂, in pounds, on a monthly basis, and shall be recorded for each calendar month;

“F_{fueloil}” is the fuel oil flow rate, in gallon(s), as recorded by Special Condition No. VI.1. from the FGFACILITY section;

“D” is the density of fuel oil in lbs. per gallon based on the most recent fuel oil supplier’s data, or 7.2 if no data is available;

“S” is the sulfur content of the fuel oil in lb. per lb of fuel oil, or percentage by weight, based on the most recent fuel oil supplier’s data as required in SC No. VI.5. from the FGFACILITY section; and

“2” is the conversion of sulfur to sulfur dioxide.

[R336.1205(3)]

APPENDIX B

Applicant shall calculate the NO_x emissions from FGBOILERS using the following equation:

$$ENOX_{monthly} = (F_{gasflow} * EF_{gas}) + (F_{fueloil} * EF_{oil})$$

Where:

“ENOX_{monthly}” is the emission rate, in pounds, of NO_x on a monthly basis and shall be recorded for each calendar month;

“F_{gasflow}” is the natural gas flow rate in cubic feet as recorded by Special Condition No. VI.1. from the FGFACILITY section;

“F_{fueloil}” is the fuel oil flow rate, in gallon(s), as recorded by Special Condition No. VI.1. from the FGFACILITY section;

“EF_{gas}” is an emission factor for NO_x, from natural gas combustion. This emission factor shall be the higher of 0.0001 pound NO_x per cubic foot of natural gas, or other factor as determined from previous testing.

“EF_{oil}” is an emission factor for NO_x, from fuel oil combustion, This emission factor shall be the higher of 0.02 pound NO_x per gallon of fuel oil, or other factor as determined from previous testing.

ENOX_{annual}, in tons, is the sum of all ENOX_{monthly} for the previous 12 consecutive calendar months / 2000.

ENOX_{annual} shall be recorded each calendar month.

[R336.1205(3)]

APPENDIX C

Applicant shall calculate the SO₂ emissions from FG ENGINES using the following equation:

$$ESO_{2\text{monthly}} = F_{\text{fueloil}} * D * S * 2$$

Where:

“ESO_{2monthly}” is the emission of SO₂, in pounds, on a monthly basis, and shall be recorded for each calendar month;

“F_{fueloil}” is the fuel oil flow rate, in gallon(s), as recorded by Special Condition No. VI.1. from the FGFACILITY section;

“D” is the density of fuel oil in lbs. per gallon based on the most recent fuel oil supplier’s data, or 7.2 if no data is available;

“S” is the sulfur content of the fuel oil in lb. per lb of fuel oil, or percentage by weight, based on the most recent fuel oil supplier’s data as required in SC No. VI.5. from the FGFACILITY section; and

“2” is the conversion of sulfur to sulfur dioxide.

[R336.1205(3)]

APPENDIX D

Applicant shall calculate the NO_x emissions from FGENGINES using the following equation:

$$ENOX_{monthly} = (F_{gasflow} * EF_{gas}) + (F_{dieselfueloil} * EF_{oil})$$

Where:

“ENOX_{monthly}” is the emission rate, in pounds, of NO_x on a monthly basis and shall be recorded for each calendar month;

“F_{gasflow}” is the natural gas flow rate in cubic feet as recorded by Special Condition No. VI.1. from the FGFACILITY section;

“F_{fueloil}” is the fuel oil flow rate, in gallon(s), as recorded by Special Condition No. VI.1. from the FGFACILITY section;

“EF_{gas}” is an emission factor for NO_x, from natural gas combustion. This emission factor shall be the higher of 0.0001 pound NO_x per cubic foot of natural gas, or other factor as determined from previous testing.

“EF_{oil}” is an emission factor for NO_x, from fuel oil combustion, This emission factor shall be the higher of 0.02 pound NO_x per gallon of fuel oil, or other factor as determined from previous testing.

ENOX_{annual}, in tons, is the sum of all ENOX_{monthly} for the previous 12 consecutive calendar months / 2000.

ENOX_{annual} shall be recorded each calendar month.

[R336.1205(3)]