# MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY AIR QUALITY DIVISION

November 19, 2015

PERMIT TO INSTALL 80-06A

ISSUED TO Wayne State University

LOCATED AT 5454 Cass Avenue Detroit, Michigan

IN THE COUNTY OF Wayne

TRIS PENINSULAM

# STATE REGISTRATION NUMBER M0239

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:

September 14, 2015	
DATE PERMIT TO INSTALL APPROVED: November 19, 2015	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	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	со	Carbon Monoxide
CEM	Continuous Emission Monitoring	CO <sub>2</sub> e	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 ar	Degrees Fahrenheit Grains
EU	Emission Unit	HAP	Hazardous Air Pollutant
FG	Flexible Group	Ha	Mercury
GACS	Gallons of Applied Coating Solids	hr	Hour
GC	General Condition	HP	Horsepower
GHGs	Greenhouse Gases	H <sub>2</sub> S	Hydrogen Sulfide
HVLP	High Volume Low Pressure*	kW	Kilowatt
ID	Identification	lb	Pound
IRSL	Initial Risk Screening Level	m	Meter
ITSL	Initial Threshold Screening Level	ma	Milligram
LAER	Lowest Achievable Emission Rate	mm	Millimeter
MACT	Maximum Achievable Control Technology	MM	Million
MAERS	Michigan Air Emissions Reporting System	MW	Megawatts
MAP	Malfunction Abatement Plan	NMOC	Non-methane Organic Compounds
MDEQ	Michigan Department of Environmental	NOx	Oxides of Nitrogen
	Quality	ng	Nanogram
MSDS	Material Safety Data Sheet	PM	Particulate Matter
NA	Not Applicable	PM10	Particulate Matter equal to or less than 10
NAAQS	National Ambient Air Quality Standards	1 1110	microns in diameter
NESHAP	National Emission Standard for Hazardous Air Pollutants	PM2.5	Particulate Matter equal to or less than 2.5 microns in diameter
NSPS	New Source Performance Standards	pph	Pounds per hour
NSR PS	New Source Review Performance Specification	ppm	Parts per million
PSD	Prevention of Significant Deterioration	ppmv	Parts per million by weight
PTF	Permanent Total Enclosure	ppinw	Paulos per minior by weight
PTI	Permit to Install	psia	Pounds per square inch dauge
RACT	Reasonable Available Control Technology	scf	Standard cubic feet
ROP	Renewable Operating Permit	SOC	Seconds
SC	Special Condition	SO <sub>2</sub>	Sulfur Dioxide
SCR	Selective Catalytic Reduction		Toxic Air Contaminant
SNCR	Selective Non-Catalytic Reduction	Temp	Temperature
SRN	State Registration Number	тыс	
TEQ		tov	
USEPA/FPA	United States Environmental Protection	ιμα	Microgram
2021/021/0	Agency	μy um	Micrometer or Micron
VE	Visible Emissions	VOC	Volatile Organic Compounds
		yr	Year

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

#### GENERAL CONDITIONS

- 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 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.
- 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)	Installation Date / Modification Date	Flexible Group ID
EU504B2	Natural gas fired boiler with a maximum heat input capacity of 0.42 MMBtu/hr (Thompson Home)	10/19/2007	FG3
EU642B3A	Natural gas fired boiler with a maximum heat input capacity of 0.42 MMBtu/hr. (Beecher House)	11/7/2007	FG3
EU642B3B	Natural gas fired boiler with a maximum heat input capacity of 0.42 MMBtu/hr (Beecher House)	11/7/2007	FG3
EU203B4A	Natural gas fired boiler with a maximum heat input capacity of 0.63 MMBtu/hr (6050 Cass)	1/7/2008	FG3
EU203B4B	Natural gas fired boiler with a maximum heat input capacity of 0.63 MMBtu/hr (6050 Cass)	1/7/2008	FG3
EU141B5	Natural gas fired boiler with a maximum heat input capacity of 1.26 MMBtu/hr (5900 Second Street)	10/31/2007	FG3
EU620B6A	Natural gas fired boiler with a maximum heat input capacity of 1.26 MMBtu/hr (Bonstelle Theatre)	11/1/2007	FG3
EU620B6B	Natural gas fired boiler with a maximum heat input capacity of 1.26 MMBtu/hr (Bonstelle Theatre)	11/1/2007	FG3
EU68B7	Natural gas fired boiler with a maximum heat input capacity of 0.50 MMBtu/hr (Simons Building)	10/19/2007	FG3
EU060B8A	Natural gas fired boiler with a maximum heat input capacity of 3.35 MMBtu/hr (University Services F,P, & M)	10/15/2007	FG2
EU060B8B	Natural gas fired boiler with a maximum heat input capacity of 3.35 MMBtu/hr. (University Services F,P, & M)	10/15/2007	FG2
EU629B9A	Natural gas fired boiler with a maximum heat input capacity of 5.10MMBtu/hr (Elliman)	12/21/2007	FG1
EU629B9B	Natural gas fired boiler with a maximum heat input capacity of 5.10MMBtu/hr (Elliman)	12/21/2007	FG1
EU629B9C	Natural gas fired boiler with a maximum heat input capacity of 5.10MMBtu/hr (Elliman)	12/21/2007	FG1
EU080B10A	Natural gas fired boiler with a maximum heat input capacity of 4.19 MMBtu/hr (Matthaei Building).	10/19/2007	FG2

Emission Unit ID	Emission Unit Description (Process Equipment & Control Devices)	Installation Date / Modification Date	Flexible Group ID
EU080B10B	Natural gas fired boiler with a maximum heat input capacity of 4.19 MMBtu/hr (Matthaei Building).	10/19/2007	FG2
EU609B11A	Natural gas fired boiler with a maximum heat input capacity of 8.17 MMBtu/hr (Mott).	12/20/2007	FG1
EU609B11B	Natural gas fired boiler with a maximum heat input capacity of 8.17 MMBtu/hr (Mott).	12/20/2007	FG1
EU609B11C	Natural gas fired boiler with a maximum heat input capacity of 8.17 MMBtu/hr (Mott).	12/20/2007	FG1
EU637B12A	Natural gas fired boiler with a maximum heat input capacity of 8.17 MMBtu/hr (110 East Warren).	12/6/2007	FG1
EU637B12B	Natural gas fired boiler with a maximum heat input capacity of 8.17 MMBtu/hr (110 East Warren).	12/6/2007	FG1
EU050B13A	Natural gas fired boiler with a maximum heat input capacity of 1.68 MMBtu/hr (Shapero Hall)	10/24/2007	FG2
EU050B13B	Natural gas fired boiler with a maximum heat input capacity of 1.68 MMBtu/hr (Shapero Hall)	10/24/2007	FG2
EU050B13C	Natural gas fired boiler with a maximum heat input capacity of 1.68 MMBtu/hr (Shapero Hall)	10/24/2007	FG2
EU155B14A	Natural gas fired boiler with a maximum heat input capacity of 8.17 MMBtu/hr (Manoogian)	10/23/2007	FG1
EU155B14B	Natural gas fired boiler with a maximum heat input capacity of 8.17 MMBtu/hr (Manoogian)	10/23/2007	FG1
EU090B15A	Natural gas fired boiler with a maximum heat input capacity of 6.12 MMBtu/hr (Engineering Building)	10/25/2007	FG1
EU090B15B	Natural gas fired boiler with a maximum heat input capacity of 6.12 MMBtu/hr (Engineering Building)	10/25/2007	FG1
EU090B15C	Natural gas fired boiler with a maximum heat input capacity of 6.12 MMBtu/hr (Engineering Building)	10/25/2007	FG1
EU090B15D	Natural gas fired boiler with a maximum heat input capacity of 6.12 MMBtu/hr (Engineering Building)	10/25/2007	FG1
EU026B16A	Natural gas fired boiler with a maximum heat input capacity of 6.12 MMBtu/hr (Cluster "C", Purdy Library)	1/2/2008	FG1
EU026B16A	Natural gas fired boiler with a maximum heat input capacity of 6.12 MMBtu/hr (Cluster "C", Purdy Library)	1/2/2008	FG1
EU507B17A	Natural gas fired boiler with a maximum heat input capacity of 8.17 MMBtu/hr (University Towers)	11/2/2007	FG1

Emission Unit ID	Emission Unit Description (Process Equipment & Control Devices)	Installation Date / Modification Date	Flexible Group ID
EU507B17B	Natural gas fired boiler with a maximum heat input capacity of 8.17 MMBtu/hr (University Towers)	11/2/2007	FG1
EU507B17C	Natural gas fired boiler with a maximum heat input capacity of 8.17 MMBtu/hr (University Towers)	11/2/2007	FG1
EU-140B18A	Natural gas fired boiler with a maximum heat input capacity of 2.00 MMBtu/hr (Education Building)	10/23/2007	FG2
EU-140B18B	Natural gas fired boiler with a maximum heat input capacity of 2.00 MMBtu/hr (Education Building)	10/23/2007	FG2
EU-140B18C	Natural gas fired boiler with a maximum heat input capacity of 2.00 MMBtu/hr (Education Building)	10/23/2007	FG2
EU-140B18D	Natural gas fired boiler with a maximum heat input capacity of 2.00 MMBtu/hr (Education Building)	10/23/2007	FG2
EU071B19A	Natural gas fired boiler with a maximum heat input capacity of 6.12 MMBtu/hr (5057 Woodward)	10/24/2007	FG1
EU071B19B	Natural gas fired boiler with a maximum heat input capacity of 6.12 MMBtu/hr (5057 Woodward)	10/24/2007	FG1
EU499B20A	Natural gas fired boiler with a maximum heat input capacity of 3.35 MMBtu/hr (Rackham)	10/22/2007	FG2
EU499B20B	Natural gas fired boiler with a maximum heat input capacity of 3.35 MMBtu/hr (Rackham)	10/22/2007	FG2
EU189B29A	Natural gas fired boiler with a maximum heat input capacity of 0.63 MMBtu/hr (Hillberry Theatre)	11/7/2007	FG3
EU189B29B	Natural gas fired boiler with a maximum heat input capacity of 0.63 MMBtu/hr (Hillberry Theatre)	11/7/2007	FG3
EU189B29C	Natural gas fired boiler with a maximum heat input capacity of 0.63 MMBtu/hr (Hillberry Theatre)	11/7/2007	FG3
EU001B21A	Natural gas fired boiler with a maximum heat input capacity of 10.26 MMBtu/hr. (Old Main)	10/19/2007	FG1 FGNSPSDc
EU001B21B	Natural gas fired boiler with a maximum heat input capacity of 10.26 MMBtu/hr. (Old Main)	10/19/2007	FG1 FGNSPSDc
EU016B22A	Natural gas fired boiler with a maximum heat input capacity of 8.17 MMBtu/hr. (Cluster B, State Hall).	1/3/2008	FG1
EU016B22B	Natural gas fired boiler with a maximum heat input capacity of 8.17 MMBtu/hr. (Cluster B, State Hall).	1/3/2008	FG1

Emission Unit ID	Emission Unit Description (Process Equipment & Control Devices)	Installation Date / Modification Date	Flexible Group ID
EU067B23A	Natural gas fired boiler with a maximum heat input capacity of 4.19 MMBtu/hr. (Cluster G, 5425 Woodward)	10/22/2007	FG2
EU067B23B	Natural gas fired boiler with a maximum heat input capacity of 4.19 MMBtu/hr. (Cluster G, 5425 Woodward)	10/22/2007	FG2
EU510B24A	Natural gas fired boiler with a maximum heat input capacity of 2.51 MMBtu/hr. (Cluster H, Skillman 510)	10/19/2007	FG2
EU510B24B	Natural gas fired boiler with a maximum heat input capacity of 2.51 MMBtu/hr. (Cluster H, Skillman 510)	10/19/2007	FG2
EU992B30A	Natural gas fired boiler with a maximum heat input capacity of 6.57 MMBtu/hr. (Metropolitan Center)	12/6/2007	FG1
EU992B30B	Natural gas fired boiler with a maximum heat input capacity of 6.57 MMBtu/hr. (Metropolitan Center)	12/6/2007	FG1
EU992B30C	Natural gas fired boiler with a maximum heat input capacity of 6.57 MMBtu/hr. (Metropolitan Center)	12/6/2007	FG1
EU007B25A	Natural gas fired boiler with a maximum heat input capacity of 10.26 MMBtu/hr. (Cluster A, Chemistry-007)	12/26/2007	FG1 FGNSPSDc
EU007B25B	Natural gas fired boiler with a maximum heat input capacity of 10.26 MMBtu/hr. (Cluster A, Chemistry-007)	12/26/2007	FG1 FGNSPSDc
EU007B25C	Natural gas fired boiler with a maximum heat input capacity of 10.26 MMBtu/hr. (Cluster A, Chemistry-007)	12/26/2007	FG1 FGNSPSDc
EU007B25D	Natural gas fired boiler with a maximum heat input capacity of 10.26 MMBtu/hr. (Cluster A, Chemistry-007)	12/26/2007	FG1 FGNSPSDc
EU048B26A	Natural gas fired boiler with a maximum heat input capacity of 8.17 MMBtu/hr. (Cluster E, Cohn – 048)	1/4/2008	FG1
EU048B26B	Natural gas fired boiler with a maximum heat input capacity of 8.17 MMBtu/hr. (Cluster E, Cohn – 048)	1/4/2008	FG1
EU166B27A	Natural gas fired boiler with a maximum heat input capacity of 4.19 MMBtu/hr. (Cluster F, Manufacturing Engineering 166)	12/27/2007	FG2
EU166B27B	Natural gas fired boiler with a maximum heat input capacity of 4.19 MMBtu/hr. (Cluster F, Manufacturing Engineering 166)	12/27/2007	FG2
EU166B27C	Natural gas fired boiler with a maximum heat input capacity of 4.19 MMBtu/hr. (Cluster F, Manufacturing Engineering 166)	12/27/2007	FG2

Emission Unit ID	Emission Unit Description (Process Equipment & Control Devices)	Installation Date / Modification Date	Flexible Group ID
EU038B28A	Natural gas fired boiler with a maximum heat input capacity of 4.19 MMBtu/hr. (Cluster D, Schaver Music – 038)	1/2/2008	FG2
EU038B28B	Natural gas fired boiler with a maximum heat input capacity of 4.19 MMBtu/hr. (Cluster D, Schaver Music – 038)	1/2/2008	FG2
EU036B31A	Natural gas fired boiler with a maximum heat input capacity of 2.00 MMBtu/hr. (Reuther Library)	11/1/2007	FG2
EU036B31B	Natural gas fired boiler with a maximum heat input capacity of 2.00 MMBtu/hr. (Reuther Library)	11/1/2007	FG2
EU036B31C	Natural gas fired boiler with a maximum heat input capacity of 0.63 MMBtu/hr. (Reuther Library)	11/1/2007	FG2
EU608B35A	Natural gas fired boiler with a maximum heat input capacity of 2.51 MMBtu/hr. (Shiffman Library-Ed Commons)	4/19/2009	FG2
EU608B35B	Natural gas fired boiler with a maximum heat input capacity of 2.51 MMBtu/hr. (Shiffman Library-Ed Commons)	4/19/2009	FG2
EU003A1	Natural gas fired boiler with a maximum heat input capacity of 10.5 MMBtu/hr. (Physics)	1989	FG4
EU003A2	Natural gas fired boiler with a maximum heat input capacity of 10.5 MMBtu/hr. (Physics)	1989	FG4
EU028A3	Natural gas fired boiler with a maximum heat input capacity of 1.01 MMBtu/hr. (Rand)	1980	FG4
EU062A4	Natural gas fired boiler with a maximum heat input capacity of 2.07 MMBtu/hr. (Academic Administration)	1995	FG4
EU062A5	Natural gas fired boiler with a maximum heat input capacity of 2.07 MMBtu/hr. (Academic Administration)	1995	FG4
EU062A6	Natural gas fired boiler with a maximum heat input capacity of 2.07 MMBtu/hr. (Academic Administration)	1995	FG4
EU070A7	Natural gas fired boiler with a maximum heat input capacity of 1.01 MMBtu/hr. (5035 Woodward)		FG4
EU082A8	Natural gas fired boiler with a maximum heat input capacity of 1.80 MMBtu/hr. (Welcome Center)	2002	FG4
EU082A9	Natural gas fired boiler with a maximum heat input capacity of 1.80 MMBtu/hr. (Welcome Center)	2002	FG4
EU082A10	Natural gas fired boiler with a maximum heat input capacity of 1.80 MMBtu/hr. (Welcome Center)	2002	FG4

Emission Unit ID	Emission Unit Description (Process Equipment & Control Devices)	Installation Date / Modification Date	Flexible Group ID
EU089A11	Natural gas fired boiler with a maximum heat input capacity of 24.50 MMBtu/hr. (Bio Sciences)	1990	FG1 FGNSPSDc
EU089A12	Natural gas fired boiler with a maximum heat input capacity of 24.50 MMBtu/hr. (Bio Sciences)	1990	FG1 FGNSPSDc
EU089A13	Natural gas fired boiler with a maximum heat input capacity of 6.28 MMBtu/hr. (Bio Sciences)	1990	FG4
EU130A14	Natural gas fired boiler with a maximum heat input capacity of 1.50 MMBtu/hr. (Faculty Admin.)	1988	FG4
EU130A15	Natural gas fired boiler with a maximum heat input capacity of 1.50 MMBtu/hr. (Faculty Admin.)	1988	FG4
EU193A16	Natural gas fired boiler with a maximum heat input capacity of 6.30 MMBtu/hr. (Computer Services Center)	1988	FG4
EU193A17	Natural gas fired boiler with a maximum heat input capacity of 6.30 MMBtu/hr. (Computer Services Center)	1988	FG4
EU195A18	Natural gas fired boiler with a maximum heat input capacity of 0.40 MMBtu/hr. (Custodial)	1960	FG4
EU603A20	Natural gas fired boiler with a maximum heat input capacity of 32.66 MMBtu/hr. (Applebaum/Pharmacy)	2004	FG7 FGNSPSDc
EU609A21	Natural gas fired boiler with a maximum heat input capacity of 0.51 MMBtu/hr. (Mott)		FG4
EU115A27	Natural gas fired boiler with a maximum heat input capacity of 1.26 MMBtu/hr (N. Residence)		FG4
EU115A28	Natural gas fired boiler with a maximum heat input capacity of 1.26 MMBtu/hr (N. Residence)		FG4
EU115A29	Natural gas fired boiler with a maximum heat input capacity of 1.26 MMBtu/hr (N. Residence)		FG4
EU115A30	Natural gas fired boiler with a maximum heat input capacity of 1.26 MMBtu/hr (N. Residence)		FG4
EU085A31	Natural gas fired boiler with a maximum heat input capacity of 1.26 MMBtu/hr. (Bookstore)	Before 1990	FG4
EU085A32	Natural gas fired boiler with a maximum heat input capacity of 1.26 MMBtu/hr. (Bookstore)	Before 1990	FG4
EU136A33	Natural gas fired boiler with a maximum heat input capacity of 12.85 MMBtu/hr. (Chatsworth Tower)	2005	FG1 FGNSPSDc

Emission Unit ID	Emission Unit Description (Process Equipment & Control Devices)	Installation Date / Modification Date	Flexible Group ID
EU136A34	Natural gas fired boiler with a maximum heat input capacity of 12.85 MMBtu/hr. (Chatsworth Tower)	2005	FG1 FGNSPSDc
EU136A35	Natural gas fired boiler with a maximum heat input capacity of 12.85 MMBtu/hr. (Chatsworth Tower)	2005	FG1 FGNSPSDc
EU136A36	Natural gas fired boiler with a maximum heat input capacity of 12.85 MMBtu/hr. (Chatsworth Tower)	2005	FG1 FGNSPSDc
EU127A37	Natural gas fired boiler with a maximum heat input capacity of 2.07 MMBtu/hr. (The Towers)	2005	FG4
EU127A38	Natural gas fired boiler with a maximum heat input capacity of 2.07 MMBtu/hr. (The Towers)	2005	FG4
EU127A39	Natural gas fired boiler with a maximum heat input capacity of 2.07 MMBtu/hr. (The Towers)	2005	FG4
EU127A40	Natural gas fired boiler with a maximum heat input capacity of 2.07 MMBtu/hr. (The Towers)	2005	FG4
EUGEN2	Onan diesel fired generator with a rated capacity of 350 kW. (Faculty Admin.)	12/1/1988	FG6
EUGEN3	Generac diesel fired generator with a rated capacity of 505 kW. (S. Residence)	10/14/2002	FG6
EUGEN5	Kohler diesel fired generator with a rated capacity of 1000 kW. (Mott)	5/1/2003	FG6
EUGEN6	Cummins diesel fired generator with a rated capacity of 350 kW. (5425 Woodward)	1994	FG6
EUGEN7	Onan natural gas fired generator with a rated capacity of 100 kW. (Scott)	1991	FG5
EUGEN8	Onan natural gas fired generator with a rated capacity of 85 kW. (110 East Warren)	1985	FG5
EUGEN9	Onan natural gas fired generator with a rated capacity of 85 kW. (110 East Warren)	1972	FG5
EUGEN10	Kohler natural gas fired generator with a rated capacity of 55 kW. (WDET Transmitter Tower)	1996	FG5
EUGEN11	Kohler diesel fired generator with a rated capacity of 300 kW. (University Towers)	2000	FG6
EUGEN13	Generac natural gas fired generator with a rated capacity of 150 kW. (Engineering Building)	2003	FG5
EUGEN14	Generac natural gas fired generator with a rated capacity of 200 kW. (The Towers)	9/1/2005	FG5
EUGEN15	Generac natural gas fired generator with a rated capacity of 200 kW. (The Towers)	5/1/2014	FG5

Emission Unit ID	Emission Unit Description (Process Equipment & Control Devices)	Installation Date / Modification Date	Flexible Group ID
EUGEN16	Generac natural gas fired generator with a rated capacity of 200 kW. (The Towers)	9/1/2005	FG5
EUGEN17	Generac natural gas fired generator with a rated capacity of 200 kW. (The Towers)	9/1/2005	FG5
EUGEN18	Caterpillar diesel fired generator with a rated capacity of 2000 kW. (Chemistry)	9/1/2005	FG6
EUGEN19	Caterpillar diesel fired generator with a rated capacity of 2000 kW. (Chemistry)	9/1/2005	FG6
EUGEN20	Caterpillar diesel fired generator with a rated capacity of 1500 kW. (BioSciences)	10/1/2005	FG6
EUGEN21	Caterpillar diesel fired generator with a rated capacity of 1500 kW. (Lande)	10/1/2005	FG6
EUGEN22	Caterpillar diesel fired generator with a rated capacity of 2000 kW. (Scott Hall)	5/1/2006	FG6
EUGEN23	Caterpillar diesel fired generator with a rated capacity of 2000 kW. (Scott Hall)	5/1/2006	FG6
EUGEN40	Caterpillar diesel fired generator with a rated capacity of 2500 kW. (Pharmacy Building)	TBD	FG-NSPSIIII
EUGEN41	Cummins diesel fired generator with a rated capacity of 1000 kW. (Physics Building)	TBD	FG-NSPSIIII
EUGEN42	Cummins diesel fired generator with a rated capacity of 2000 kW. (Engineering Building)	TBD	FG-NSPSIIII
EUGEN43	Cummins diesel fired generator with a rated capacity of 2000 kW. (Elliman Building)	TBD	FG-NSPSIIII
EUGEN44	Cummins diesel fired generator with a rated capacity of 1500 kW. (IBio Building)	TBD	FG-NSPSIIII
EUGEN45	Cummins diesel fired generator with a rated capacity of 1500 kW. (IBio Building)	TBD	FG-NSPSIIII
EUMOTTINCINANIM	0.9 MMBtu/hr capacity incinerator, natural gas fired. (Mott)		FGINCIN
EUSCINCINAM	1.5 MMBtu/hr gas fired incinerator. (Scott)		FGINCIN
EUSCINCINHUM	1.5 MMBtu/hr gas fired incinerator. (Scott)		FGINCIN
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.			

# 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
FG1	Natural gas fired boilers	See EU Table
FG2	Natural gas fired boilers	See EU Table
FG3	Natural gas fired boilers	See EU Table
FG4	Natural gas fired boilers	See EU Table
FG5	Natural gas fired generators	See EU Table
FG6	Diesel fuel fired generators	See EU Table
FG-NSPSIIII	Diesel fuel fired generators subject to NSPS IIII	See EU Table
FG7	Natural gas fired boilers	See EU Table
FGNSPSDc	Natural gas fired boiler larger than 10 MMBtu/hr	See EU Table
FGINCIN	Natural gas fired batch incinerators	See EU Table
FGFACILITY	All process equipment at the facility including	Entire Facility
	equipment covered by other permits, grand-fathered	
	equipment and exempt equipment.	

#### The following conditions apply to: FG1

## DESCRIPTION: All emission units in FG1

**Emission Units:** 

## **POLLUTION CONTROL EQUIPMENT:**

#### I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. NOx	0.035 lb/MMBtu	Test Protocol	FG1	GC 13	R336.1205(3)
2. CO	0.040 lb/MMBtu	Test Protocol	FG1	GC 13	R336.1205(3)

#### II. MATERIAL LIMITS

NA

## III. PROCESS/OPERATIONAL RESTRICTIONS

NA

## IV. DESIGN/EQUIPMENT PARAMETERS

NA

## V. TESTING/SAMPLING

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

#### VI. MONITORING/RECORDKEEPING

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

NA

## VII. <u>REPORTING</u>

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.SV9ABC	32	54	40 CFR 52.21 (c) and (d), R336.1225
2.SV11A	16	84	40 CFR 52.21 (c) and (d), R336.1225
3.SV11B	16	84	40 CFR 52.21 (c) and (d), R336.1225
4.SV11C	16	84	40 CFR 52.21 (c) and (d), R336.1225
5.SV12AB	22	95.25	40 CFR 52.21 (c) and (d), R336.1225
6.SV14A	16	96	40 CFR 52.21 (c) and (d), R336.1225
7.SV14B	16	96	40 CFR 52.21 (c) and (d), R336.1225
8.SV15A	16	65	40 CFR 52.21 (c) and (d), R336.1225
9.SV15B	16	65	40 CFR 52.21 (c) and (d), R336.1225
10. SV15C	16	65	40 CFR 52.21 (c) and (d), R336.1225
11. SV15D	16	65	40 CFR 52.21 (c) and (d), R336.1225
12. SV16AB	24	51	40 CFR 52.21 (c) and (d), R336.1225
13. SV17A	18	23	40 CFR 52.21 (c) and (d), R336.1225
14. SV17B	18	23	40 CFR 52.21 (c) and (d), R336.1225
15. SV17C	18	23	40 CFR 52.21 (c) and (d), R336.1225
16. SV19AB	24	65.33	40 CFR 52.21 (c) and (d), R336.1225
17. SV22AB	28	56	40 CFR 52.21 (c) and (d), R336.1225
18. SV30ABC	28	88	40 CFR 52.21 (c) and (d), R336.1225

Stac	ck & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
19. 5	SV26A	16	55	40 CFR 52.21 (c) and (d), R336.1225
20. 5	SV26B	16	55	40 CFR 52.21 (c) and (d), R336.1225

## IX. OTHER REQUIREMENTS

NA

## Footnotes:

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

## The following conditions apply to: FG2

**DESCRIPTION:** All emission units in FG2

**Emission Units:** 

## POLLUTION CONTROL EQUIPMENT:

## I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. NOx	0.12 lb/MMBtu	Test Protocol	FG2	GC 13	R336.1205(3)
2. CO	0.150 lb/MMBtu	Test Protocol	FG2	GC 13	R336.1205(3)

## II. MATERIAL LIMITS

1. The permittee shall only combust natural gas in FG2. [R336.1201(3)]

# III. PROCESS/OPERATIONAL RESTRICTIONS

NA

# 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))

NA

# VII. <u>REPORTING</u>

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. SV8A	12	46.5	40 CFR 52.21 (c) and (d), R336.1225
2. SV8B	12	46.5	40 CFR 52.21 (c) and (d), R336.1225
3. SV10AB	18	46	40 CFR 52.21 (c) and (d), R336.1225
4. SV13A	8	76	40 CFR 52.21 (c) and (d), R336.1225
5. SV13B	8	76	40 CFR 52.21 (c) and (d), R336.1225
6. SV13C	8	76	40 CFR 52.21 (c) and (d), R336.1225
7. SV18ABCD	**	*	40 CFR 52.21 (c) and (d), R336.1225
8. SV20AB	18	27	40 CFR 52.21 (c) and (d), R336.1225
9. SV23A	14	26	40 CFR 52.21 (c) and (d), R336.1225
10. SV23B	14	26	40 CFR 52.21 (c) and (d), R336.1225
11. SV24AB	16	23	40 CFR 52.21 (c) and (d), R336.1225
12. SV27A	14	57.33	40 CFR 52.21 (c) and (d), R336.1225
13. SV27B	14	57.33	40 CFR 52.21 (c) and (d), R336.1225
14. SV27C	14	57.33	40 CFR 52.21 (c) and (d), R336.1225
15. SV28A	12	60.33	40 CFR 52.21 (c) and (d), R336.1225
16. SV28B	12	60.33	40 CFR 52.21 (c) and (d), R336.1225
17. SV31ABC	12	58	40 CFR 52.21 (c) and (d), R336.1225
18. SV35A	14	60	40 CFR 52.21 (c) and (d), R336.1225
19. SV35B	14	60	40 CFR 52.21 (c) and (d), R336.1225

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements		
* Ground level discharge point ** Release point is an 8' X 15' grate (equivalent diameter of 148 inches)					

## IX. OTHER REQUIREMENTS

NA

## Footnotes:

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

#### The following conditions apply to: FG3

**DESCRIPTION:** All emission units in FG3

**Emission Units:** 

## POLLUTION CONTROL EQUIPMENT:

#### I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. NOx	0.175 lb/MMBtu	Test Protocol	FG3	GC 13	R336.1205(3)
2. CO	0.150 lb/MMBtu	Test Protocol	FG3	GC 13	R336.1205(3)

#### II. MATERIAL LIMITS

1. The permittee shall only combust natural gas in FG3. [R336.1201(3)]

## III. PROCESS/OPERATIONAL RESTRICTIONS

NA

## IV. DESIGN/EQUIPMENT PARAMETERS

NA

## V. TESTING/SAMPLING

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

# VI. MONITORING/RECORDKEEPING

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

NA

## VII. <u>REPORTING</u>

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. SV2	6	57.25	40 CFR 52.21 (c) and (d), R336.1225
2. SV3AB	12	38	40 CFR 52.21 (c) and (d), R336.1225
3. SV4AB	12	45	40 CFR 52.21 (c) and (d), R336.1225
4. SV5	12	50	40 CFR 52.21 (c) and (d), R336.1225
5. SV6AB	14	78	40 CFR 52.21 (c) and (d), R336.1225
6. SV7 *	6	15	40 CFR 52.21 (c) and (d), R336.1225
7. SV29ABC	14	65	40 CFR 52.21 (c) and (d), R336.1225
* SV7 is discharged in a h	norizontal direction not vertica	ally upwards to the ambi	ent air

## IX. OTHER REQUIREMENTS

NA

#### Footnotes:

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

## The following conditions apply to: FG4

**DESCRIPTION:** All emission units in FG4

**Emission Units:** 

#### **POLLUTION CONTROL EQUIPMENT:**

#### I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. NOx	0.100 lb/MMBtu	Test Protocol	FG4	GC 13	R336.1205(3)
2. CO	0.084 lb/MMBtu	Test Protocol	FG4	GC 13	R336.1205(3)

#### II. MATERIAL LIMITS

2. The permittee shall only combust natural gas in FG4. [R336.1201(3)]

## III. PROCESS/OPERATIONAL RESTRICTIONS

NA

#### 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))

NA

#### VII. <u>REPORTING</u>

# 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. SV003-A1-2	24	25.8	40 CFR 52.21 (c) and (d), R336.1225
2. SV028-A3	10	37.83	40 CFR 52.21 (c) and (d), R336.1225
3. SV062-A4-6	27	59.97	40 CFR 52.21 (c) and (d), R336.1225
4. SV070-A7	48	68.42	40 CFR 52.21 (c) and (d), R336.1225
5. SV082-A8	15	83.59	40 CFR 52.21 (c) and (d), R336.1225
6. SV082-A9	15	83.59	40 CFR 52.21 (c) and (d), R336.1225
7. SV082-A10	15	83.59	40 CFR 52.21 (c) and (d), R336.1225
8. SV089-A13	34	108.10	40 CFR 52.21 (c) and (d), R336.1225
9. SV130-A14-15	16	52.44	40 CFR 52.21 (c) and (d), R336.1225
10. SV193-A16-17	24	50	40 CFR 52.21 (c) and (d), R336.1225
11. SV195-A18	10	50.10	40 CFR 52.21 (c) and (d), R336.1225
12. SV609-A21	12	83	40 CFR 52.21 (c) and (d), R336.1225
13. SV612-A22-25	24	173.14	40 CFR 52.21 (c) and (d), R336.1225
14. SV115-A27-30	24	65.35	40 CFR 52.21 (c) and (d), R336.1225
15. SV085-A31-32	20	37.64	40 CFR 52.21 (c) and (d), R336.1225
16. SV127-A37	15	24.08	40 CFR 52.21 (c) and (d), R336.1225
17. SV127-A38	15	24.08	40 CFR 52.21 (c) and (d), R336.1225
18. SV127-A39	15	19.33	40 CFR 52.21 (c) and (d), R336.1225
19. SV127-A40	15	19.33	40 CFR 52.21 (c) and (d), R336.1225

## IX. OTHER REQUIREMENTS

NA

## Footnotes:

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

## The following conditions apply to: FG5

**DESCRIPTION:** All emission units in FG5 (natural gas-fired generators)

#### **Emission Units:**

#### **POLLUTION CONTROL EQUIPMENT:**

## I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating	Equipment	Testing / Monitoring	Underlying Applicable	
		Scenario		Method	Requirements	
1. NOx	1.64 pph	Test Protocol	EUGEN7	GC 13	R336.1205(3)	
2. CO	8.41 pph	Test Protocol	EUGEN7	GC 13	R336.1205(3)	
3. NOx	2.30 pph*	Test Protocol	EUGEN8, EUGEN9	GC 13	R336.1205(3)	
4. CO	3.77 pph*	Test Protocol	EUGEN8, EUGEN9	GC 13	R336.1205(3)	
5. NOx	1.49 pph	Test Protocol	EUGEN10	GC 13	R336.1205(3)	
6. CO	2.44 pph	Test Protocol	EUGEN10	GC 13	R336.1205(3)	
7. NOx	3.06 pph	Test Protocol	EUGEN13	GC 13	R336.1205(3)	
8. CO	29.56 pph	Test Protocol	EUGEN13	GC 13	R336.1205(3)	
9. NOx	7.77 pph*	Test Protocol	EUGEN14 EUGEN15 EUGEN16 EUGEN17	GC 13	R336.1205(3)	
10. CO	0.59 pph*	Test Protocol	EUGEN14 EUGEN15 EUGEN16 EUGEN17	GC 13	R336.1205(3)	
* Emission limitati	Emission limitation applies to each emission unit separately.					

## II. MATERIAL LIMITS

1. The permittee shall only combust natural gas in FG5. [R336.1201(3)]

#### III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall not operate each generator in FG5 for more than 500 hours per year. [R336.1201(3)]

#### 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 maintain the following records:
  - Operating hours of each generator, compiled on a calendar month period.
  - NOx emissions, (lbs or tons), calculated on a calendar month period.
  - CO emissions, (lbs or tons), calculated on a calendar month period

All of the above records shall be maintained in a format acceptable to the District Supervisor, and shall be maintained for a period of at least five years. **[R336.1205(3)]** 

2. The permittee shall calculate NOx and CO emissions in accordance with Appendix A of this document [R336.201(3)]

## VII. <u>REPORTING</u>

## 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. SVGEN7	6	168.0	40 CFR 52.21 (c) and (d), R336.1225
2. SVGEN8	6	52.00	40 CFR 52.21 (c) and (d), R336.1225
3. SVGEN9	6	52.00	40 CFR 52.21 (c) and (d), R336.1225
4. SVGEN10	3	6.7	40 CFR 52.21 (c) and (d), R336.1225
5. SVGEN13	5	53.6	40 CFR 52.21 (c) and (d), R336.1225
6. SVGEN14-15	5	11.6	40 CFR 52.21 (c) and (d), R336.1225
7. SVGEN16-17	5	17.0	40 CFR 52.21 (c) and (d), R336.1225

#### IX. OTHER REQUIREMENTS

NA

**Footnotes:** <sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

## The following conditions apply to: FG6

**DESCRIPTION:** All emission units in FG6 (diesel-fired generators)

**Emission Units:** 

**POLLUTION CONTROL EQUIPMENT:** 

## I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements		
1. NOx	11.37 pph	Test Protocol	EUGEN2	GC 13	R336.1205(3)		
2. CO	0.45 pph	Test Protocol	EUGEN2	GC 13	R336.1205(3)		
3. NOx	10.47 pph	Test Protocol	EUGEN3	GC 13	R336.1205(3)		
4. CO	0.90 pph	Test Protocol	EUGEN3	GC 13	R336.1205(3)		
5. NOx	46.19 pph	Test Protocol	EUGEN5	GC 13	R336.1205(3)		
6. CO	9.95 pph	Test Protocol	EUGEN5	GC 13	R336.1205(3)		
7. NOx	10.91 pph	Test Protocol	EUGEN6	GC 13	R336.1205(3)		
8. CO	1.77 pph	Test Protocol	EUGEN6	GC 13	R336.1205(3)		
9. NOx	13.86 pph	Test Protocol	EUGEN11	GC 13	R336.1205(3)		
10. CO	2.99 pph	Test Protocol	EUGEN11	GC 13	R336.1205(3)		
11. NOx	59.95 pph*	Test Protocol	EUGEN18 EUGEN19	GC 13	R336.1205(3)		
12. CO	1.21 pph*	Test Protocol	EUGEN18 EUGEN19	GC 13	R336.1205(3)		
13. NOx	56.45 pph	Test Protocol	EUGEN20	GC 13	R336.1205(3)		
14. CO	12.31pph	Test Protocol	EUGEN20	GC 13	R336.1205(3)		
15. NOx	39.10 pph	Test Protocol	EUGEN21	GC 13	R336.1205(3)		
16. CO	12.96 pph	Test Protocol	EUGEN21	GC 13	R336.1205(3)		
17. NOx	59.95 pph*	Test Protocol	EUGEN22 EUGEN23	GC 13	R336.1205(3)		
18. CO	1.21 pph*	Test Protocol	EUGEN22 EUGEN23	GC 13	R336.1205(3)		
* Emission limitat	Emission limitation applies to each emission unit separately.						

## II. MATERIAL LIMITS

- 1. The permittee shall only combust diesel fuel in FG6. [R336.1201(3)]
- 2. The Sulfur content of the diesel fuel used in EUGEN2 through EUGEN23 of FG6 shall not exceed 0.05% by weight. [40 CFR 52.21 (c) and (d)]

## III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall not operate EUGEN2 through EUGEN23 of FG6 for more than 500 hours per year, per engine. [R336.1201(3)].

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

NA

#### V. TESTING/SAMPLING

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

#### VI. MONITORING/RECORDKEEPING

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

- 1. The permittee shall maintain the following records:
  - Operating hours of each generator, compiled on a calendar month period.
  - NOx emissions, (lbs or tons), calculated on a calendar month period.
  - CO emissions, (lbs or tons), calculated on a calendar month period
  - Fuel usage, compiled on a monthly basis.
  - Fuel receipts indicating the sulfur content of the diesel fuel.

All of the above records shall be maintained in a format acceptable to the District Supervisor, and shall be maintained for a period of at least five years [R336.1205(3)]

2. The permittee shall calculate NOx and CO emissions in accordance with Appendix A of this document [R336.201(3)]

## VII. <u>REPORTING</u>

# 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.	SVGEN2	6.0	7.65	40 CFR 52.21 (c) and (d), R336.1225
2.	SVGEN3	8	11.4	40 CFR 52.21 (c) and (d), R336.1225
3.	SVGEN5	6	11.8	40 CFR 52.21 (c) and (d), R336.1225
4.	SVGEN6	12.0	52.4	40 CFR 52.21 (c) and (d), R336.1225
5.	SVGEN11	5.0	11.80	40 CFR 52.21 (c) and (d), R336.1225
6.	SVGEN18-19	18.0	14.00	40 CFR 52.21 (c) and (d), R336.1225
7.	SVGEN20	15.0	13.10	40 CFR 52.21 (c) and (d), R336.1225
8.	SVGEN21	15.0	13.20	40 CFR 52.21 (c) and (d), R336.1225
9.	SVGEN22	18.0	64.00	40 CFR 52.21 (c) and (d), R336.1225
10.	SVGEN23	18.0	64.00	40 CFR 52.21 (c) and (d), R336.1225

## IX. OTHER REQUIREMENTS

NA

**Footnotes:** <sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

#### The following conditions apply to: FG-NSPSIIII

**DESCRIPTION:** All emission units in FG-NSPSIIII (diesel-fired generators)

Emission Units: EUGEN40, EUGEN41, EUGEN42, EUGEN43, EUGEN44, EUGEN45

#### **POLLUTION CONTROL EQUIPMENT:**

# I. <u>EMISSION LIMITS</u>

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. NOx	42.62 pph	Test Protocol	EUGEN40	SC V.1, V.2	R336.1205(3)
2. CO	3.36 pph	Test Protocol	EUGEN40	SC V.1, V.2	R336.1205(3)
3. NOx	13.14 pph	Test Protocol	EUGEN41	SC V.1, V.2	R336.1205(3)
4. CO	2.17 pph	Test Protocol	EUGEN41	SC V.1, V.2	R336.1205(3)
5. NOx	34.14 pph	Test Protocol	EUGEN42	SC V.1, V.2	R336.1205(3)
6. CO	1.16 pph	Test Protocol	EUGEN42	SC V.1, V.2	R336.1205(3)
7. NOx	34.14 pph	Test Protocol	EUGEN43	SC V.1, V.2	R336.1205(3)
8. CO	1.16 pph	Test Protocol	EUGEN43	SC V.1, V.2	R336.1205(3)
9. NOx	20.56 pph	Test Protocol	EUGEN44	SC V.1, V.2	R336.1205(3)
10. CO	4.40 pph	Test Protocol	EUGEN44	SC V.1, V.2	R336.1205(3)
11. NOx	20.56 pph	Test Protocol	EUGEN45	SC V.1, V.2	R336.1205(3)
12. CO	4.40 pph	Test Protocol	EUGEN45	SC V.1, V.2	R336.1205(3)
13. NOx + HC	6.4 g/kW-hr	Test Protocol	FG-NSPSIIII	SC V.1, V.2	40 CFR 60.4202
14. CO	3.5 g/kw-hr	Test Protocol	FG-NSPSIIII	SC V.1, V.2	40 CFR 60.4202

#### II. MATERIAL LIMITS

- 1. The permittee shall only combust diesel fuel in FG-NSPSIIII. [R336.1201(3)]
- The Sulfur content of the diesel fuel used in the FG-NSPSIIII engines shall not exceed 15 ppm (0.0015 percent) by weight and a minimum Centane index of 40 or a maximum aromatic content of 35 volume percent. (40 CFR 60.4207, 40 CFR 80.510(b))

## III. PROCESS/OPERATIONAL RESTRICTIONS

- 1. The permittee shall not operate EUGEN40 through EUGEN45 for more than 500 hours per year, per engine. [R336.1201(3)].
- 2. The permittee may operate EUGEN40 through EUGEN45 for no more than 100 hours, per engine, per calendar year for the purpose of necessary 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. Permittee may petition the Department for approval of additional hours to be used for maintenance checks and readiness testing. 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 internal combustion engines beyond 100 hours per calendar year. FG-NSPSIIII may operate up to 50 hours per engine per calendar year in non-emergency situations, but those 50 hours are counted towards the 100 hours per calendar year provided for maintenance and testing. The 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply non-emergency power as part of a financial arrangement with another entity. (40 CFR 60.4211(f))
- 2. If the permittee has purchased a certified engines, according to procedures specified in 40 CFR Part 60 Subpart IIII, for the same model year and maximum engine power, the permittee shall meet the following requirements for FG-NSPSIIII:
  - a) Operate and maintain the certified engine and control device according to the manufacturer's emissionrelated written instructions;

- b) Change only those emission-related settings that are permitted by the manufacturer; and
- c) Meet the requirements as specified in 40 CFR 89, 94, and/or 1068, as they apply to you.

If you do not operate and maintain the certified engine and control device according to the manufacturer's emission-related written instructions, the engine may be considered a non-certified engine. (40 CFR 60.4211(a))

 If the permittee purchased non-certified engines or a certified engine operating in a non-certified manner, the permittee shall keep a maintenance plan for EUGEN40 through EUGEN45 and shall, to the extent practicable, maintain and operate each engine in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR 60.4211(g)(3))

#### IV. DESIGN/EQUIPMENT PARAMETERS

- 1. The permittee shall equip and maintain EUGEN40 through EUGEN45 with non-resettable hours meters to track the operating hours. **(40 CFR 60.4209)**
- 2. The nameplate capacity of EUGEN40 shall not exceed 2500 kW, as certified by the equipment manufacturer. (40 CFR 60.4202, 40 CFR 89.112(a))
- 3. The nameplate capacity of EUGEN41 shall not exceed 1000 kW, as certified by the equipment manufacturer. (40 CFR 60.4202, 40 CFR 89.112(a))
- 4. The nameplate capacity of EUGEN42 and EUGEN43 shall not exceed 2000 kW, as certified by the equipment manufacturer. (40 CFR 60.4202, 40 CFR 89.112(a))
- 5. The nameplate capacity of EUGEN44 and EUGEN45 shall not exceed 1500 kW, as certified by the equipment manufacturer. (40 CFR 60.4202, 40 CFR 89.112(a))

#### V. TESTING/SAMPLING

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

- 1. The permittee shall conduct an initial performance test for EUGEN40 through EUGEN45 within one year after startup of the engine to demonstrate compliance with the emission limits in 40 CFR 60.4205 unless the engines have been certified by the manufacturer and the permittee operates and maintains the engine as required by 40 CFR Part 60 Subpart IIII. (40 CFR 60.4211, 40 CFR Part 60 Subpart IIII)
- 2. If a performance test is required in order to certify compliance with the emission limits in 40 CFR 60.4205, the performance tests shall be conducted according to 40 CFR 60.4212. No less than 30 days prior to testing, a complete test plan shall be submitted to the AQD. The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. After initial performance testing, subsequent performance testing shall be conducted every 8,760 hours of engine operation or 3 years, whichever comes first. (40 CFR 60.4211, 40 CFR 60.4212, 40 CFR Part 60 Subpart IIII)

#### VI. MONITORING/RECORDKEEPING

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

- 1. The permittee shall maintain the following records:
  - Operating hours of each generator, compiled on a calendar month period.
  - NOx emissions, (lbs or tons), calculated on a calendar month period.
  - CO emissions, (lbs or tons), calculated on a calendar month period
  - Fuel usage, compiled on a monthly basis.

All of the above records shall be maintained in a format acceptable to the District Supervisor, and shall be maintained for a period of at least five years **[R336.1205(3)]** 

- 2. The permittee shall calculate NOx and CO emissions in accordance with Appendix A of this document [R336.201(3)]
- 3. For each engine, the permittee shall keep, in a satisfactory manner, records of testing required in SC V.1 OR manufacturer certification documentation indicating that FG-NSPSIIII meets the applicable requirements contained in the federal Standards of Performance for New Stationary Sources 40 CFR Part 60 Subpart IIII. If either engine of FG-NSPSIIII becomes uncertified then the permittee must also keep records of a maintenance plan and maintenance activities. The permittee shall keep all records on file and make them available to the Department upon request. (40 CFR 60.4211)
- 4. The permittee shall monitor and record the total hours of operation and the hours of operation during nonemergencies for each engine of EUGEN40 through EUGEN45, on a monthly and 12-month rolling time period basis, in a manner acceptable to the District Supervisor, Air Quality Division. The permittee shall document how many hours are spent for emergency operation of each engine, including what classified the operation as emergency and how many hours are spent for non-emergency operation. (40 CFR 60.4211, 40 CFR 60.4214)
- The permittee shall keep, in a satisfactory manner, fuel supplier certification records or fuel sample test data, for each delivery of diesel fuel oil used in EUGEN40 through EUGEN45, demonstrating that the fuel meets the requirement of 40 CFR 80.510(b). The certification or test data shall include the name of the oil supplier or laboratory, the sulfur content, and cetane index or aromatic content of the fuel oil. (R 336.1402(1), 40 CFR 80.510(b))

## VII. <u>REPORTING</u>

1. The permittee shall submit a notification specifying whether EUGEN40 through EUGEN45 will be operated in a certified or a non-certified manner to the AQD District Supervisor, in writing, within 30 days following the initial startup of the engine and within 30 days of switching the manner of operation. **(40 CFR Part 60 Subpart IIII)** 

## 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.	SVGEN40	20	15.3	40 CFR 52.21 (c) and (d), R336.1225			
2.	SVGEN41	85.4 *	20.9	40 CFR 52.21 (c) and (d), R336.1225			
3.	SVGEN42	18	15.25	40 CFR 52.21 (c) and (d), R336.1225			
4.	SVGEN43	18	15.75	40 CFR 52.21 (c) and (d), R336.1225			
5.	SVGEN44	15	6.5	40 CFR 52.21 (c) and (d), R336.1225			
6.	SVGEN45	15	6.5	40 CFR 52.21 (c) and (d), R336.1225			
* R inc	* Release point is upward through a rectangular vent screen at generator top (equivalent diameter is 85.4 inches)						

## IX. OTHER REQUIREMENTS

NA

**Footnotes:** <sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

#### The following conditions apply to: FG7

**DESCRIPTION:** All emission units in FG7

**Emission Units:** 

#### POLLUTION CONTROL EQUIPMENT:

#### I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. NOx	0.070 lb/MMBtu	Test Protocol*	FG7	GC 13	R336.1205(3)
2. CO	0.150 lb/MMBtu	Test Protocol*	FG7	GC 13	R336.1205(3)
Test Protocol will specify the averaging period					

#### II. MATERIAL LIMITS

NA

#### III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall only combust natural gas in FG7. [R336.1201(3)]

#### 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))

NA

#### VII. <u>REPORTING</u>

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:

#### IX. OTHER REQUIREMENTS

NA

#### Footnotes:

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

## The following conditions apply to: FGINCIN

#### **DESCRIPTION:** Incinerators

**Emission Units:** 

## **POLLUTION CONTROL EQUIPMENT:**

## I. EMISSION LIMITS

NA

#### II. MATERIAL LIMITS

- 1. The total annual feed rate of EUMOTTINCINANIM shall not exceed 6 tons per year. Compliance with this condition shall be demonstrated by special conditions 8.4. [R336.1201(3)]
- 2. The total annual feed rate of EUSCINCIN shall not exceed 22 tons per year. Compliance with this condition shall be demonstrated by special condition VI.1. [R336.1201(3)]
- **3.** The total annual feed rate of EUSCINCINHUM shall not exceed 40 tons per year. Compliance with this condition shall be demonstrated by special condition VI.1. **[R336.1201(3)]**

## III. PROCESS/OPERATIONAL RESTRICTIONS

NA

## 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 maintain the following records:
  - The daily amount of waste fed to each incinerator, each day the incinerator(s) is operated.

• Date of operation of each incinerator.

The above records shall be maintained in a format acceptable to the district supervisor and maintained for a period of five years. **[R336.1203(1)]** 

## VII. <u>REPORTING</u>

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:

## IX. OTHER REQUIREMENTS

NA

#### Footnotes:

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

## The following conditions apply to: FGNSPSDc

**DESCRIPTION:** Natural gas fired boilers, each larger than 10 MMBtu/hr

**Emission Units:** 

## POLLUTION CONTROL EQUIPMENT:

## I. EMISSION LIMITS

NA

#### II. MATERIAL LIMITS

## III. PROCESS/OPERATIONAL RESTRICTIONS

The applicant shall only combust natural gas in FGNSPSDc. [R336.1203(3]

## IV. DESIGN/EQUIPMENT PARAMETERS

#### 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 comply with notification and recordkeeping requirements in 40 CFR 60.7 and 60.48c(a), as applicable.

#### VII. <u>REPORTING</u>

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. SV21AB	28	25	40 CFR 52.21 (c) and (d), R336.1225
2. SV25ABCD	36	71	40 CFR 52.21 (c) and (d), R336.1225
3. SV089-A11	34	108.10	40 CFR 52.21 (c) and (d), R336.1225
4. SV089-A12	34	108.10	40 CFR 52.21 (c) and (d), R336.1225
5. SV603-A20	30	109.20	40 CFR 52.21 (c) and (d), R336.1225
6. SV612-A26	24	173.14	40 CFR 52.21 (c) and (d), R336.1225
7. SV136-A33-36	84.63 (equivalent diameter)	130.13	40 CFR 52.21 (c) and (d), R336.1225

## IX. OTHER REQUIREMENTS

NA

#### Footnotes:

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

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

**<u>DESCRIPTION</u>**: All process equipment at the facility including equipment covered by permits, grand-fathered equipment and exempt equipment.

#### POLLUTION CONTROL EQUIPMENT:

#### I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1.NOx	89.9 tons/year	12 month time period as determined at the end of each calendar month	FGFACILITY		R336.1205(3)
2.CO	89.9 tons/year	12 month time period as determined at the end of each calendar month	FGFACILITY		R336.1205(3)

#### II. MATERIAL LIMITS

Material	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Natural Gas	1.45 Billion cubic feet	12 month rolling time period, as determined at the end of each calendar month	FGFACILITY	SC VI.1	R336.1205(3)

## III. PROCESS/OPERATIONAL RESTRICTIONS

NA

## IV. DESIGN/EQUIPMENT PARAMETERS

## 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. Permittee shall calculate the annual NOx and CO for the facility in accordance with the procedures outlined in Appendix A. All NOx and CO calculations shall be compiled no later than 30 calendar days after the end of the previous calendar month. The calculations shall identify each emission unit at the facility with the proper emission unit identifier. If an emission unit is not identified in this permit because it is exempt from permitting requirements, a description of the equipment shall kept on file and made available to the Department upon request and the equipment must be included as a part of the facility emission calculations.[R336.1205(3)]
- 2. The permittee shall keep monthly records of the amount of natural gas combusted at the facility. The data shall be compiled no later than 30 days after the end of the previous calendar month. All records shall be kept on file for a period of at least five years and be made available to the Department upon request. [R336.1203(3), 40 CFR Part 60 Subpart Dc]

## VII. <u>REPORTING</u>

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:

NA

## IX. OTHER REQUIREMENTS

NA

#### Footnotes:

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

#### APPENDIX A. Procedures for Calculating Annual NOx and CO Emissions Procedures for Calculating Annual NOx and CO emissions

The purpose of this appendix is to define the procedures by which annual NOx and CO emissions are calculated. The applicant is required to estimate NOx and CO emissions for the entire facility, which also includes emission units which are grandfathered or exempt from permitting.

#### General Methodology:

Natural gas usage will be measured for each building on Wayne State University Campus. Since each individual boiler may not have a separate fuel measuring device, it will be necessary to assign NOx and CO emission factors to each building for purposes of estimating emissions. These default emission factors may overestimate CO and/or NOx since the most conservative emission factor for all emission units within the building will be used to estimate CO and NOx emissions. In the event that additional natural gas metering is installed within a building, this Appendix may be modified to reflect the additional metering and the methodology for estimating annual NOx and CO emissions may be changed. In the event that additional natural gas fired boilers are installed within a building, this Appendix may be modified to reflect the additional equipment and use the same methodology for estimating annual NOx and CO emissions. Any changes proposed to this Appendix shall be submitted to the AQD district office and approved, in writing, before the change is implemented.

NOx and CO emissions will be calculated on a calendar month frequency and calculated on a rolling 12 month time period basis (tons per year). The NOx and CO emissions shall be compiled and recorded no later than 30 days after the end of the previous calendar month.

In the event that testing is required, the emission factor derived from the testing for that particular flexible group will be used in lieu of the default emission factors listed below.

Building ID	Flexible Groups within Building	CO emission factor, Lbs per million cubic feet of natural gas	NOx Emission Factor, Lbs per million cubic feet of natural gas
110 East Warren	FG1, FG5	40.8	35.7
5035 Woodward	FG4	85.68	102
5057 Woodward	FG1	40.8	35.7
5900 Second Street	FG3	153	178.5
6050 Cass	FG3	153	178.5
Academic Administration	FG4	85.68	102
Applebaum (Pharmacy)	FG7, FG-NSPSIIII	153	71.4
Beecher House	FG3	153	178.5
Bio Sciences	FG1, FG4, FG6	85.68	102
Bonstelle Theater	FG3	153	178.5
Bookstore	FG4	85.68	102
Chatsworth Tower	FG1	40.8	35.7
Cluster 'A' (Chemistry – 007)	FG1	40.8	35.7
Cluster 'B' (State Hall – 016)	FG1	40.8	35.7

# Table A-1. Boiler CO and NOx Emission Factors by Building

Table A-1 (	continued).	<b>Boiler CO</b>	and NOx	Emission	Factors	by Buildina
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Building ID	Flexible Groups within Building	CO emission factor, Lbs per million cubic feet	NOx Emission Factor, Lbs per million cubic feet
Chuster (C) (Durch Library 02C)	F04	of natural gas	of natural gas
Cluster C (Purdy Library – 026)	FG1	40.8	35.7
	FG2	153	122.4
Cluster 'E' (Conn – 048)	FG1	40.8	35.7
166)	FG2	153	122.4
Cluster 'G' (5425 Woodward 067)	FG2	153	122.4
Cluster 'H' (Skillman – 510)	FG2	153	122.4
Computer	FG4, FG5	85.68	102
Custodial	FG4	85.68	102
Education Building	FG2	153	122.4
Education Commons (Shiffman Library)	FG2	153	122.4
Elliman	FG1, FG-NSPSIIII	40.8	35.7
Engineering Building	FG1, FG5, FG- NSPSIIII	40.8	35.7
Faculty Administration	FG4, FG6	85.68	102
Hillberry Theatre	FG3	153	178.5
Manoogian	FG1	40.8	35.7
Matthaei Building	FG2	153	122.4
Metropolitan Center	FG1	40.8	35.7
Mott	FG1, FG4, FG6, FGINCIN	85.68	102
N. Residence	FG4	85.68	102
The Towers (127)	FG4	85.68	102
Old Main	FG1	40.8	35.7
Physics	FG4, FG-NSPSIIII	85.68	102
Rackham	FG2	153	122.4
Rand	FG4	85.68	102
Reuther Library	FG2	153	122.4
Scott	FG4, FG5, FG6, FGINCIN	85.68	102
Shapero Hall	FG2	153	122.4
Simons building	FG3	153	178.5
Thompson Home	FG3	153	178.5
University Services F, P, & M	FG2	153	122.4
University Towers	FG1, FG6, FG5	40.8	35.7
Welcome	FG4	85.68	102

Emergency Generators

For the emergency generators, the permittee will be responsible for maintaining a record of the operating hours of each generator for each calendar month. When a generator is operating, it will be assumed to be operating at its maximum load for the duration of its operation. In order to calculate the emissions from the emergency generators, the permittee will multiply the actual operating hours times its allowable emission rates specified in the special condition Emission Limits tables of FG5 and FG6. Emissions from the generators will be added to the emissions estimated from all other combustion sources.

Any exempt generators must also be included in the emission calculations, even if they are not explicitly included in this permit, in order to account for emissions that need to be included to demonstrate compliance with the facility-wide NOx and CO limitations in FGFACILITY.