# MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY AIR QUALITY DIVISION

August 19, 2009

### **PERMIT TO INSTALL**

No. 158-09

#### **ISSUED TO**

Providence Hospital and Medical Centers - Providence Park Hospital

## **LOCATED AT**

47601 Grand River Avenue Novi, Michigan 48374

## IN THE COUNTY OF Oakland

## STATE REGISTRATION NUMBER

N8273

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: 7/13/2009				
DATE PERMIT TO INSTALL APPROVED: 8/19/2009	SIGNATURE:			
DATE PERMIT VOIDED:	SIGNATURE:			
DATE PERMIT REVOKED:	SIGNATURE:			

# PERMIT TO INSTALL 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	СО	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 <sub>2</sub> 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 <sub>x</sub>	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	
NESHA P	National Emission Standard for Hazardous Air Pollutants	pph	Pound per hour	
NSPS NSR PS	New Source Performance Standards New Source Review Performance Specification	ppmv ppmw	Parts per million Parts per million by volume 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 <sub>2</sub>	Sulfur Dioxide	
SC	Special Condition	THC	Total Hydrocarbons	
SCR	Selective Catalytic Reduction	tpy	Tons per year	
SRN TAC	State Registration Number Toxic Air Contaminant	μg VOC	Microgram Volatile Organic Compounds	
TEQ	Toxicity Equivalence Quotient		Year	
VE	Visible Emissions	yr	i cai	

<sup>\*</sup> 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 AQD District Supervisor shall be notified, in writing, of a change in ownership or operational control of the stationary source or emission unit(s) authorized by this Permit to Install pursuant to R 336.1219. The notification shall include all of the information required by R 336.1219(1)(a) and (b). In addition, a new owner or operator must submit a written statement pursuant to R 336.1219(1)(c), agreeing to and accepting the terms and conditions of this Permit to Install, and shall notify the AQD District Supervisor of any change in the contact person for this Permit to Install. (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	
EUGEN1	Cummins 1500 kW diesel generator to provide backup power for hospital	FGGENERATORS	
EUGEN2	Cummins 2250 kW diesel generator to provide backup power for hospital	FGGENERATORS	
EUGEN3	Cummins 2250 kW diesel generator to provide backup power for hospital	FGGENERATORS	
Changes to the equipment described in this table are subject to the requirements of R 336.1201, except as			

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	
FGGENERATORS	Three diesel fueled backup generators (one 1500 kW and two 2250 kW)	EUGEN1, EUGEN2, EUGEN3	

#### The following conditions apply to: FGGENERATORS

**<u>DESCRIPTION</u>**: Three diesel fueled backup generators (one 1500 kW and two 2250 kW)

Emission Units: EUGEN1, EUGEN2, EUGEN3

## **POLLUTION CONTROL EQUIPMENT:**

## I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. NO <sub>x</sub>	26.8 pph	Test Method	EUGEN1	SC V.1	R 336.1205(1)(a)
2. NO <sub>x</sub>	55.2 pph	Test Method	EUGEN2	SC V.1	R 336.1205(1)(a)
3. NO <sub>x</sub>	55.2 pph	Test Method	EUGEN3	SC V.1	R 336.1205(1)(a)

## II. MATERIAL LIMITS

1. The permittee shall burn only diesel fuel in FGGENERATORS. (R 336.1224, R 336.1225)

- The sulfur content of the diesel fuel used in FGGENERATORS shall not exceed 15 ppmw. (R 336.1205(3), R 336.1401, R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d))
- 3. The combined diesel fuel use for all units included in FGGENERATORS shall not exceed 136,000 gallons per 12-month rolling time period. (R 336.1205(1)(a), R 336.1224, R 336.1225, R 336.1702(a), R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))

#### III. PROCESS/OPERATIONAL RESTRICTIONS

- 1. The permittee shall operate FGGENERATORS in accordance with manufacturer's recommendations for safe and proper operation to minimize emissions during periods of startup, shutdown and malfunction. (R 336.1912)
- 2. The total capacity from all units included in FGGENERATORS shall not exceed 6 MW. (R 336.1205(1)(a))

#### IV. <u>DESIGN/EQUIPMENT PARAMETERS</u>

NA

#### V. TESTING/SAMPLING

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

1. Verification of the NOx emission limit from one or more units of FGGENERATORS, by testing at owner's expense, in accordance with Department requirements may be required. No less than 60 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 the emission factor includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. (R 336.1205(1)(a), R 336.2001, R 336.2003, R 336.2004)

#### VI. MONITORING/RECORDKEEPING

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

- 1. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the fuel use for FGGENERATORS on a monthly basis. (R 336.1205(1)(a), R 336.1224, R 336.1225, R 336.1702(a), R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))
- 2. The permittee shall keep a complete copy of the diesel fuel/No. 2 fuel oil analysis including the sulfur content in percent, as supplied by the vendor, for each shipment of diesel fuel/No. 2 fuel oil received. All records shall be kept on file and made available to the Department upon request. (R 336.1205(3), R 336.1401, R 336.2803, R 336.2804, 40 CFR 52.21 (c) and (d))
- 3. The permittee shall keep, in a satisfactory manner, records of the date, duration, and description of any malfunction, any maintenance performed and any testing results for FGGENERATORS. All records shall be kept on file and made available to the Department upon request. (R 336.1912)
- 4. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period fuel use records for FGGENERATORS. The records must indicate the total amount of fuel used in FGGENERATORS. All records shall be kept on file and made available to the Department upon request. (R 336.1205(1)(a), R 336.1224, R 336.1225, R 336.1702(a), R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))

#### VII. REPORTING

## 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:

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. EUGEN1	NA	NA	R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)
2. EUGEN2	NA	NA	R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)
3. EUGEN3	NA	NA	R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)

## IX. OTHER REQUIREMENTS

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