

**MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY
AIR QUALITY DIVISION**

October 2, 2020

**PERMIT TO INSTALL
47-20**

ISSUED TO
McLaren Greater Lansing Hospital

LOCATED AT
2900 Collins Road and 3520 Forest Road
Lansing, Michigan 48910-8394 Lansing, Michigan 48910

IN THE COUNTY OF
Ingham

STATE REGISTRATION NUMBER
P1123

The Air Quality Division has approved this Permit to Install, pursuant to the delegation of authority from the Michigan Department of Environment, Great Lakes, and Energy. 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: August 25, 2020	
DATE PERMIT TO INSTALL APPROVED: October 2, 2020	SIGNATURE:
DATE PERMIT VOIDED:	SIGNATURE:
DATE PERMIT REVOKED:	SIGNATURE:

PERMIT TO INSTALL

Table of Contents

COMMON ACRONYMS	2
POLLUTANT / MEASUREMENT ABBREVIATIONS.....	3
GENERAL CONDITIONS	4
EMISSION UNIT SPECIAL CONDITIONS.....	6
EMISSION UNIT SUMMARY TABLE	6
FLEXIBLE GROUP SPECIAL CONDITIONS.....	8
FLEXIBLE GROUP SUMMARY TABLE	8
FGEMERGENCY	9
FGDFBOILERS.....	13
FGNGBOILERS.....	17
FGHWHOSP	20

COMMON ACRONYMS

AQD	Air Quality Division
BACT	Best Available Control Technology
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CEMS	Continuous Emission Monitoring System
CFR	Code of Federal Regulations
COMS	Continuous Opacity Monitoring System
Department/department/EGLE	Michigan Department of Environment, Great Lakes, and Energy
EU	Emission Unit
FG	Flexible Group
GACS	Gallons of Applied Coating Solids
GC	General Condition
GHGs	Greenhouse Gases
HVLP	High Volume Low Pressure*
ID	Identification
IRSL	Initial Risk Screening Level
ITSL	Initial Threshold Screening Level
LAER	Lowest Achievable Emission Rate
MACT	Maximum Achievable Control Technology
MAERS	Michigan Air Emissions Reporting System
MAP	Malfunction Abatement Plan
MSDS	Material Safety Data Sheet
NA	Not Applicable
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emission Standard for Hazardous Air Pollutants
NSPS	New Source Performance Standards
NSR	New Source Review
PS	Performance Specification
PSD	Prevention of Significant Deterioration
PTE	Permanent Total Enclosure
PTI	Permit to Install
RACT	Reasonable Available Control Technology
ROP	Renewable Operating Permit
SC	Special Condition
SCR	Selective Catalytic Reduction
SNCR	Selective Non-Catalytic Reduction
SRN	State Registration Number
TBD	To Be Determined
TEQ	Toxicity Equivalence Quotient
USEPA/EPA	United States Environmental Protection Agency
VE	Visible Emissions

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

POLLUTANT / MEASUREMENT ABBREVIATIONS

acfm	Actual cubic feet per minute
BTU	British Thermal Unit
°C	Degrees Celsius
CO	Carbon Monoxide
CO ₂ e	Carbon Dioxide Equivalent
dscf	Dry standard cubic foot
dscm	Dry standard cubic meter
°F	Degrees Fahrenheit
gr	Grains
HAP	Hazardous Air Pollutant
Hg	Mercury
hr	Hour
HP	Horsepower
H ₂ S	Hydrogen Sulfide
kW	Kilowatt
lb	Pound
m	Meter
mg	Milligram
mm	Millimeter
MM	Million
MW	Megawatts
NMOC	Non-Methane Organic Compounds
NO _x	Oxides of Nitrogen
ng	Nanogram
PM	Particulate Matter
PM10	Particulate Matter equal to or less than 10 microns in diameter
PM2.5	Particulate Matter equal to or less than 2.5 microns in diameter
pph	Pounds per hour
ppm	Parts per million
ppmv	Parts per million by volume
ppmw	Parts per million by weight
psia	Pounds per square inch absolute
psig	Pounds per square inch gauge
scf	Standard cubic feet
sec	Seconds
SO ₂	Sulfur Dioxide
TAC	Toxic Air Contaminant
Temp	Temperature
THC	Total Hydrocarbons
tpy	Tons per year
µg	Microgram
µm	Micrometer or Micron
VOC	Volatile Organic Compounds
yr	Year

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 Environment, Great Lakes, and Energy, 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 Rule 210 (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 Rule 219 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 Rule 219 and shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environment, Great Lakes, and Energy. **(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 Rule 301, 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 Rule 303 (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 Rule 370(2). **(R 336.1370)**
13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with Rule 1001 and Rule 1003, under any of the conditions listed in Rule 1001. **(R 336.2001)**

EMISSION UNIT 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 (Including Process Equipment & Control Device(s))	Flexible Group ID
EUBOILER1	Cleaver Brooks Boiler CBEX Dryback Elite 200-500-150ST 500 Bhp 20.4 MMBtu/hr Primary Fuel: Natural Gas Backup Fuel: No. 2 Fuel Oil Emission Controls: NA Location: Hospital	FGDFBOILERS
EUBOILER2	Cleaver Brooks Boiler CBEX Dryback Elite 200-500-150ST 500 Bhp 20.4 MMBtu/hr Primary Fuel: Natural Gas Backup Fuel: No. 2 Fuel Oil Emission Controls: NA Location: Hospital	FGDFBOILERS
EUBOILER3	Cleaver Brooks Model No. CFC-E-700-4000-125HW 4.0 MMBtu/hr Fuel: Natural Gas Location: Hospital	FGNGBOILERS
EUBOILER4	Cleaver Brooks Model No. CFC-E-700-4000-125HW 4.0 MMBtu/hr Fuel: Natural Gas Location: Hospital	FGNGBOILERS
EUHWHOSP1	Natural Gas Fired Water Heater, 1.35 MMBtu/hr, located at the hospital.	FGHWHOSP
EUHWHOSP2	Natural Gas Fired Water Heater, 1.35 MMBtu/hr, located at the hospital.	FGHWHOSP
EUHWHOSP3	Natural Gas Fired Water Heater, 1.35 MMBtu/hr, located at the hospital.	FGHWHOSP
EUHWHOSP4	Natural Gas Fired Water Heater, 1.35 MMBtu/hr, located at the hospital.	FGHWHOSP
EUHWHOSP5	Natural Gas Fired Water Heater, 1.35 MMBtu/hr, located at the hospital.	FGHWHOSP
EUHWHOSP6	Natural Gas Fired Water Heater, 1.35 MMBtu/hr, located at the hospital	FGHWHOSP
EUHWHOSP7	Natural Gas Fired Water Heater, 1.35 MMBtu/hr, located at the hospital.	FGHWHOSP
EUHWHOSP8	Natural Gas Fired Water Heater, 1.35 MMBtu/hr, located at the hospital.	FGHWHOSP
EUGEN1	Diesel-fueled emergency engine manufactured in 2019, 1,750 kilowatts (kW).	FGEMERGENCY
EUGEN2	Diesel-fueled emergency engine manufactured in 2019, 1,750 kilowatts (kW).	FGEMERGENCY

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Flexible Group ID
EUGEN3	Diesel-fueled emergency engine manufactured after 2011, 500 kilowatts (kW).	FGEMERGENCY

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 336.1291.

FLEXIBLE GROUP SPECIAL CONDITIONS

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
FGEMERGENCY	Two (2) 1,750 kilowatts (kW) diesel-fueled emergency engine manufactured in 2019 and a 500 kilowatts (kW) diesel-fueled emergency engine manufactured after 2011.	EUGEN1, EUGEN2, EUGEN3
FGDFBOILERS	Two (2) natural gas-fired steam boilers each have the capability to fire No. 2 fuel oil.	EUBOILER1, EUBOILER2
FGNGBOILERS	Two (2) natural gas-fired boilers with a combined heat input of 8.0 MMBtu per hour.	EUBOILER3, EUBOILER4
FGHWHOSP	Eight (8) natural gas-fired water heaters with a combined heat input of 10.8 MMBtu/hr located at the hospital	EUHWHOSP1, EUHWHOSP2, EUHWHOSP3, EUHWHOSP4, EUHWHOSP5, EUHWHOSP6, EUHWHOSP7, EUHWHOSP8

**FGEMERGENCY
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Two (2) 1,750 kilowatts (kW) diesel-fueled emergency engine manufactured in 2019 and a 500 kilowatts (kW) diesel-fueled emergency engine manufactured after 2011.

Emission Unit: EUGEN1, EUGEN2, EUGEN3.

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. NMHC + NOx	6.4 g/kW-hr	Hourly	FGEMERGENCY	SC VI.2	40 CFR 60.4205(b), 40 CFR 60.4202(a), Table 1 of 40 CFR 89.112
2. CO	3.5 g/kW-hr	Hourly	FGEMERGENCY	SC VI.2	40 CFR 60.4205(b), 40 CFR 60.4202(a), Table 1 of 40 CFR 89.112
3. PM	0.20 g/kW-hr	Hourly	FGEMERGENCY	SC VI.2	40 CFR 60.4205(b), 40 CFR 60.4202(a), Table 1 of 40 CFR 89.112

g/kW-hr = gram per kilowatt-hour

II. MATERIAL LIMIT(S)

Material	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. No. 2 Fuel Oil	61,050 gal/year (combined)	12 month rolling time period, as determined at the end of each month	EUGEN1 EUGEN2	SC VI.5	R 336.1205 R 336.1225, 40 CFR 52.21 (c)&(d)

2. The permittee shall burn only diesel fuel, in FGEMERGENCY with the maximum sulfur content of 15 ppm (0.0015 percent) by weight and a minimum Cetane index of 40 or a maximum aromatic content of 35 volume percent. **(40 CFR 60.4207, 40 CFR 80.510(b))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

- The permittee shall not operate EUGEN3 for more than a total of 500 hours per year on a 12-month rolling time period basis as determined at the end of each calendar month. The 500 hours includes all types of use including necessary maintenance checks and readiness testing as described in SC III.2. **(R 336.1225, R 336.1702(a), 40 CFR 52.21 (c) & (d))**
- The permittee may operate each engine in FGEMERGENCY for no more than 100 hours 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. The 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. **(40 CFR 60.4211(f)(2))**

3. Each engine in FGEMERGENCY may operate up to 50 hours 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 as provided in 40 CFR 60.4211(f)(2). Except as provided in 40 CFR 60.4211(f)(3)(i), 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 the permittee to supply non-emergency power as part of a financial arrangement with another entity. **(40 CFR 60.4211(f)(3))**
4. If the permittee purchased a certified engine, according to procedures specified in 40 CFR Part 60, Subpart IIII, for the same model year, the permittee shall meet the following requirements for each engine of FGEMERGENCY:
 - a) Operate and maintain the certified engine and control device according to the manufacturer's emission-related written instructions.
 - b) Change only those emission related settings that are permitted by the manufacturer.
 - c) Meet the requirements as specified in 40 CFR 89, 94, and/or 1068, as it applies 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 will be considered a non-certified engine. **(40 CFR 60.4211(a))**

5. If the permittee purchased a non-certified engine or a certified engine operating in a non-certified manner, the permittee shall keep a maintenance plan for each engine of FGEMERGENCY 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 PARAMETER(S)

1. The permittee shall equip and maintain each engine in FGEMERGENCY with a non-resettable hours meter to track the operating hours. **(R 336.1225, 40 CFR 60.4209)**
2. The nameplate capacity of EUGEN1 and EUGEN2 shall not exceed 1,750 kW and EUGEN3 shall not exceed 500 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 each engine in FGEMERGENCY 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 maintains the engine as required by 40 CFR Part 60, Subpart IIII. If a performance test is required, 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. Subsequent performance testing shall be conducted every 8,760 hours of engine operation or three 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 keep all required records and calculations in a format acceptable to the AQD District Supervisor by the 30th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1225, 40 CFR 52.21 (c) & (d), 40 CFR Part 60, Subpart IIII)**
2. 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 FGEMERGENCY meets the applicable requirements contained in the federal Standards of Performance for New Stationary Sources 40 CFR Part 60, Subpart IIII. If FGEMERGENCY 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)**
3. The permittee shall monitor and record the total hours of operation for each engine in FGEMERGENCY, on a monthly and 12-month rolling time period basis, in a manner acceptable to the AQD District Supervisor. The permittee shall document how many hours are spent for emergency operation of FGEMERGENCY, including what classified the operation as emergency. **(R 336.1225, R 336.1702(a), 40 CFR 52.21 (c) & (d), 40 CFR 60.4211, 40 CFR 60.4214)**
4. The permittee shall monitor and record the total hours of operation during non-emergencies and maintenance/readiness testing for each engine in FGEMERGENCY, on a calendar year basis, in a manner acceptable to the AQD District Supervisor. **(40 CFR 60.4211, 40 CFR 60.4214)**
5. 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 FGEMERGENCY, 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. **(40 CFR 80.510(b))**
6. The permittee shall monitor and record, in a satisfactory manner, the fuel oil usage for EUGEN1 and EUGEN2 on a monthly and 12-month rolling time period, in gallons per year. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1205, R 336.1225, 40 CFR 52.21(c) & (d))**

VII. REPORTING

1. Within 30 days after completion of the installation, construction, reconstruction, relocation, or modification authorized by this Permit to Install, the permittee or the authorized agent pursuant to Rule 204, shall notify the AQD District Supervisor, in writing, of the completion of the activity. Completion of the installation, construction, reconstruction, relocation, or modification is considered to occur not later than commencement of trial operation of FGEMERGENCY. **(R 336.1201(7)(a))**
2. The permittee shall submit a notification specifying whether FGEMERGENCY 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 RESTRICTION(S)

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. SVGEN1	18	20	R 336.1225, 40 CFR 52.21 (c) & (d)
2. SVGEN2	18	20	R 336.1225, 40 CFR 52.21 (c) & (d)
3. SVGEN3	8	10	R 336.1225, 40 CFR 52.21 (c) & (d)

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with the provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60, Subpart A and IIII, as they apply to FGEMERGENCY. **(40 CFR Part 60, Subparts A and IIII)**
2. The permittee shall comply with the provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and ZZZZ, as they apply to FGEMERGENCY, by the initial compliance date of startup. **(40 CFR Part 63, Subparts A and ZZZZ, 40 CFR 63.6595)**

**FGDFBOILERS
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Two (2) natural gas fired steam boilers each have the capability to fire No. 2 fuel oil.

Emission Unit: EUBOILER1, EUBOILER2.

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. NO _x	0.86 lb/hour (each)	Hourly	FGDFBOILERS when burning Natural Gas	SC V.2	R 336.1205, 40 CFR 52.21(c) & (d)
2. NO _x	3.5 lb/hour (each)	Hourly	FGDFBOILERS when burning Fuel Oil	SC V.2	R 336.1205, 40 CFR 52.21(c) & (d)

II. MATERIAL LIMIT(S)

Material	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. Natural Gas	178.8 MMcf/year	12 month rolling time period, as determined at the end of each month	FGDFBOILERS	SC VI.2	R 336.1205, R 336.1225, 40 CFR 52.21(c) & (d)

2. The permittee shall burn only pipeline quality natural gas or fuel oil in FGDFBOILERS. **(R 336.1205(3), R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d))**
3. The sulfur content of the diesel fuel used in FGDFBOILERS shall not exceed 15 ppm (0.0015 percent) by weight. **(R 336.1205(3), R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d), 40 CFR 60.42c(h))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate each boiler in FGDFBOILERS for more than 48 hours while burning fuel oil per 12-month rolling time period as determined at the end of each calendar month. **(R 336.1205, R 336.1224, R 336.1225, R 336.1702, 40 CFR 52.21(c) & (d))**
2. No later than 45 days after the completion of installation of the equipment, the permittee shall submit to the AQD District Supervisor, for review and approval, a preventative maintenance / malfunction abatement plan (PM / MAP) for FGDFBOILERS. After approval of the PM / MAP by the AQD District Supervisor, the permittee shall not operate FGDFBOILERS unless the PM / MAP, or an alternate plan approved by the AQD District Supervisor, is implemented and maintained. The plan shall incorporate procedures recommended by the equipment manufacturer as well as incorporating standard industry practices. At a minimum, the plan shall include:
 - a) Identification of the equipment and, if applicable, air-cleaning device and the supervisory personnel responsible for overseeing the inspection, maintenance, and repair.
 - b) Description of the items or conditions to be inspected and frequency of the inspections or repairs.

- c) Identification of the equipment and, if applicable, air-cleaning device, operating parameters that shall be monitored to detect a malfunction or failure, the normal operating range of these parameters and a description of the method of monitoring or surveillance procedures.
- d) Identification of the major replacement parts that shall be maintained in inventory for quick replacement.
- e) A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.

If at any time the PM / MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the PM / MAP within 45 days after such an event occurs. The permittee shall also amend the PM / MAP within 45 days, if new equipment is installed or upon request from the AQD District Supervisor. The permittee shall submit the PM / MAP and any amendments to the PM / MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the PM / MAP or amended PM / MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits. **(R 336.1205, R 336.1224, R 336.1225, R 336.1910, R 336.1911, R 336.1912)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

- 1. The design capacity of each boiler in FGDFBOILERS shall not exceed 20.4 MMBtu/hr. **(R 336.1205, R 336.1225)**
- 2. The permittee shall equip and maintain a device to monitor and record the natural gas and fuel oil usage in FGDFBOILERS. **(R 336.1205, R 336.1225, 40 CFR 52.21(c) & (d), 40 CFR 60.48c(g))**

V. TESTING/SAMPLING

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

- 1. The permittee shall either conduct an initial performance test that shall consist of sampling and analyzing the oil in the initial tank of oil to be fired in the steam generating units to demonstrate that the oil contains 0.5 weight percent sulfur or less. Thereafter, the owner or operator of the affected facility shall sample the oil in the fuel tank after each new shipment of oil is received, as described under 40 CFR 60.46c(d)(2) alternatively the performance test shall consist of the certification from the fuel supplier, as described in 40 CFR 60.48c(f), as applicable. **(40 CFR 60.44c(g) & (h))**
- 2. Upon the request of the AQD District Supervisor, the permittee shall verify NOx emission rates from any boiler in FGDFBOILERS by testing at owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in:

Pollutant	Test Method Reference
NO _x	40 CFR Part 60, Appendix A

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD-approved Test Protocol. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1205, R 336.2001, R 336.2003, R 336.2004, 40 CFR 52.21(c) & (d))**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205, R 336.1702(a))**
2. The permittee shall monitor and record, in a satisfactory manner, the natural gas usage for FGDFBOILERS on a monthly and 12-month rolling time period, in million cubic feet per year. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1205, R 336.1225, 40 CFR 52.21(c) & (d), 40 CFR 60.48c(g))**
3. 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 FGDFBOILERS, demonstrating that the fuel sulfur content meets the requirement of SC II.3. The certification or test data shall include the name of the oil supplier or laboratory, and the sulfur content of the fuel oil. **(R 336.1205, 40 CFR 60.48c(f))**
4. The permittee shall record in a satisfactory manner the hours of operation while burning fuel oil in each boiler in FGDFBOILERS to demonstrate compliance with SC III.1. **(R 336.1205, R 336.1225, 40 CFR 52.21(c) & (d))**

VII. REPORTING

1. The permittee shall submit written notification of the date of construction of FGDFBOILERS, to comply with the federal Standards of Performance for New Stationary Sources, 40 CFR 60.7. The permittee shall submit this notification to the AQD District Supervisor within 30 days after construction commences, as specified in 40 CFR 60.7. **(40 CFR 60.7)**
2. The permittee shall submit written notification of the actual date of initial startup of FGDFBOILERS, as provided by the federal Standards of Performance for New Stationary Sources, 40 CFR 60.7. Each notification shall include:
 - a) The design heat input capacity of FG-BOILERS and identification of fuels to be combusted.
 - b) The annual capacity factor at which the permittee anticipates operating FG-BOILERS based on all fuels fired and based on each individual fuel fired.

The permittee shall submit these notifications to the AQD District Supervisor within 15 days after initial startup occurs. **(40 CFR 60.7, 40 CFR 60.48c(a))**

VIII. STACK/VENT RESTRICTION(S)

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	24	45	R 336.1225, 40 CFR 52.21 (c) & (d)
2. SVBOILER2	24	45	R 336.1225, 40 CFR 52.21 (c) & (d)

IX. OTHER REQUIREMENT(S)

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

2. The permittee shall comply with the provisions of the federal National Emission Standards for Hazardous Air Pollutants as specified in 40 CFR Part 63, Subpart A and JJJJJJ, as they apply to FGDFBOILERS. **(40 CFR Part 63, Subparts A & JJJJJJ)**

**FGNGBOILERS
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Two (2) natural gas-fired boilers with a combined heat input of 8.0 MMBtu per hour.

Emission Unit: EUBOILER3, EUBOILER4

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. NO _x	0.12 lb/hour (each)	Hourly	FGNGBOILERS	SC V.1	R 336.1205, 40 CFR 52.21(c) & (d)

II. MATERIAL LIMITS

Material	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. Natural Gas	35.0 MMcf/year	12 month rolling time period, as determined at the end of each month	FGNGBOILERS	SC VI.2	R 336.1205, R 336.1225, 40 CFR 52.21(c) & (d)

2. The permittee shall burn only pipeline quality natural gas in FGNGBOILERS. (R 336.1205, R 336.1224, R 336.1225, R 336.1331, R 336.1702(a), 40 CFR 52.21(c)&(d), 40 CFR 63.11195(e))

III. PROCESS/OPERATIONAL RESTRICTIONS

1. No later than 45 days after the completion of installation of the equipment, the permittee shall submit to the AQD District Supervisor, for review and approval, a preventative maintenance / malfunction abatement plan (PM / MAP) for FGNGBOILERS. After approval of the PM / MAP by the AQD District Supervisor, the permittee shall not operate FGNGBOILERS unless the PM / MAP, or an alternate plan approved by the AQD District Supervisor, is implemented and maintained. The plan shall incorporate procedures recommended by the equipment manufacturer as well as incorporating standard industry practices. At a minimum, the plan shall include:
 - a) Identification of the equipment and, if applicable, air-cleaning device and the supervisory personnel responsible for overseeing the inspection, maintenance, and repair.
 - b) Description of the items or conditions to be inspected and frequency of the inspections or repairs.
 - c) Identification of the equipment and, if applicable, air-cleaning device, operating parameters that shall be monitored to detect a malfunction or failure, the normal operating range of these parameters and a description of the method of monitoring or surveillance procedures.
 - d) Identification of the major replacement parts that shall be maintained in inventory for quick replacement.
 - e) A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.

If at any time the PM / MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the PM / MAP within 45 days after such an event occurs. The permittee shall also amend the PM / MAP within 45 days, if new equipment is installed or upon request from

the AQD District Supervisor. The permittee shall submit the PM / MAP and any amendments to the PM / MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the PM / MAP or amended PM / MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits. **(R 336.1205, R 336.1224, R 336.1225, R 336.1910, R 336.1911, R 336.1912)**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The maximum design heat input capacity for each boiler in FGNGBOILERS shall not exceed 4.0 MMBtu per hour on a fuel heat input basis. **(R 336.1205, 40 CFR Part 60, Subpart Dc)**

V. TESTING/SAMPLING

1. Upon the request of the AQD District Supervisor, the permittee shall verify NO_x emission rates from any boiler in FGNGBOILERS by testing at owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in:

Pollutant	Test Method Reference
NO _x	40 CFR Part 60, Appendix A

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD-approved Test Protocol. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1205, R 336.2001, R 336.2003, R 336.2004, 40 CFR 52.21(c) & (d))**

VI. MONITORING/RECORDKEEPING

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205, R 336.1702(a))**
2. The permittee shall monitor and record, in a satisfactory manner, the natural gas usage for FGNGBOILERS on a monthly and 12-month rolling time period, in million cubic feet per year. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1205, R 336.1225, 40 CFR 52.21(c) & (d))**

VII. REPORTING

1. Within 10 days after completion of the installation, construction, reconstruction, relocation, or modification authorized by this Permit to Install, the permittee or the authorized agent pursuant to Rule 204, shall notify the AQD District Supervisor, in writing, of the completion of the activity. Completion of the installation, construction, reconstruction, relocation, or modification is considered to occur not later than commencement of trial operation of FGNGBOILERS. **(R 336.1201(7)(a))**

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. SVBOILER3	24	45	40 CFR 52.21(c)&(d)
2. SVBOILER4	24	45	40 CFR 52.21(c)&(d)

IX. OTHER REQUIREMENTS

NA

**FGHWHOSP
 EMISSION UNIT CONDITIONS**

DESCRIPTION

Eight (8) natural gas-fired water heaters with a combined heat input of 10.8 MMBtu/hr located at the hospital.

Emission Unit: EUHWHOSP1, EUHWHOSP2, EUHWHOSP3, EUHWHOSP4, EUHWHOSP5, EUHWHOSP6, EUHWHOSP7, EUHWHOSP8.

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. NO _x	0.36 lb/hour	Hourly	FGHWHOSP	SC V.1	R 336.1205, 40 CFR 52.21(c) & (d)

II. MATERIAL LIMIT(S)

Material	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. Natural Gas	47.3 MMcf/year	12 month rolling time period, as determined at the end of each month	FGHWHOSP	SC VI.2	R 336.1205, R 336.1225, 40 CFR 52.21(c) & (d)

2. The permittee shall burn only pipeline quality natural gas in FGHWHOSP. (R 336.1205, R 336.1224, R 336.1225, R 336.1331, R 336.1702(a), 40 CFR 52.21(c)&(d), 40 CFR 63.11195(e))

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. No later than 45 days after the completion of installation of the equipment, the permittee shall submit to the AQD District Supervisor, for review and approval, a preventative maintenance / malfunction abatement plan (PM / MAP) for FGHWHOSP. After approval of the PM / MAP by the AQD District Supervisor, the permittee shall not operate FGHWHOSP unless the PM / MAP, or an alternate plan approved by the AQD District Supervisor, is implemented and maintained. The plan shall incorporate procedures recommended by the equipment manufacturer as well as incorporating standard industry practices. At a minimum, the plan shall include:
 - a) Identification of the equipment and, if applicable, air-cleaning device and the supervisory personnel responsible for overseeing the inspection, maintenance, and repair.
 - b) Description of the items or conditions to be inspected and frequency of the inspections or repairs.
 - c) Identification of the equipment and, if applicable, air-cleaning device, operating parameters that shall be monitored to detect a malfunction or failure, the normal operating range of these parameters and a description of the method of monitoring or surveillance procedures.
 - d) Identification of the major replacement parts that shall be maintained in inventory for quick replacement.
 - e) A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.

If at any time the PM / MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the PM / MAP within 45 days after such an event occurs. The permittee shall also amend the PM / MAP within 45 days, if new equipment is installed or upon request from the AQD District Supervisor. The permittee shall submit the PM / MAP and any amendments to the PM / MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the PM / MAP or amended PM / MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits. **(R 336.1205, R 336.1224, R 336.1225, R 336.1910, R 336.1911, R 336.1912)**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The maximum design heat input capacity for each emission unit in FGHWHOSP shall not exceed 1.35 MMBtu per hour on a fuel heat input basis. **(R 336.1205, 40 CFR Part 60, Subpart Dc)**

V. TESTING/SAMPLING

1. Upon the request of the AQD District Supervisor, the permittee shall verify NO_x emission rates in any boiler or water heater in FGHWHOSP testing at owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in:

Pollutant	Test Method Reference
NO _x	40 CFR Part 60, Appendix A

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD-approved Test Protocol. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1205, R 336.2001, R 336.2003, R 336.2004, 40 CFR 52.21(c) & (d))**

VI. MONITORING/RECORDKEEPING

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205, R 336.1702(a))**
2. The permittee shall monitor and record, in a satisfactory manner, the natural gas usage for FGHWHOSP on a monthly and 12-month rolling time period, in million cubic feet per year. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1205, R 336.1225, 40 CFR 52.21(c) & (d))**

VII. REPORTING

1. Within 10 days after completion of the installation, construction, reconstruction, relocation, or modification authorized by this Permit to Install, the permittee or the authorized agent pursuant to Rule 204, shall notify the AQD District Supervisor, in writing, of the completion of the activity. Completion of the installation, construction, reconstruction, relocation, or modification is considered to occur not later than commencement of trial operation of FGHWHOSP. **(R 336.1201(7)(a))**

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. SVHWHOSP1	12	45	40 CFR 52.21(c)&(d)
2. SVHWHOSP2	12	45	40 CFR 52.21(c)&(d)
3. SVHWHOSP3	12	45	40 CFR 52.21(c)&(d)
4. SVHWHOSP4	12	45	40 CFR 52.21(c)&(d)
5. SVHWHOSP5	12	45	40 CFR 52.21(c)&(d)
6. SVHWHOSP6	12	45	40 CFR 52.21(c)&(d)
7. SVHWHOSP7	12	45	40 CFR 52.21(c)&(d)
8. SVHWHOSP8	12	45	40 CFR 52.21(c)&(d)

IX. OTHER REQUIREMENTS

NA