MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY AIR QUALITY DIVISION

May 8, 2018 REVISED January 17, 2019

PERMIT TO INSTALL 31-18

ISSUED TO The Regents of the University of Michigan

> LOCATED AT 1120 East Huron Street Ann Arbor, Michigan

IN THE COUNTY OF

Washtenaw

STATE REGISTRATION NUMBER M0675

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:

February 28, 2018

| DATE PERMIT TO INSTALL APPROVED: May 8, 2018 | SIGNATURE: |
|---|------------|
| DATE PERMIT VOIDED: | SIGNATURE: |
| DATE PERMIT REVOKED: | SIGNATURE: |

PERMIT TO INSTALL

Table of Contents

| Section Alphabetical Listing of Common Abbreviations / Acronyms | Page 2 |
|--|-----------|
| General Conditions | 3 |
| Special Conditions | 5 |
| Emission Unit Summary Table | 5 |
| Special Conditions for EU-T0260-09 | 5 |
| Special Conditions for EU-T0260-10 | 7 |
| Flexible Group Summary Table | 9 |
| Special Conditions for FG-BT0260-CO | 9 |

| 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 ₂ e | Carbon Dioxide Equivalent | |
| CFR | Code of Federal Regulations | dscf | Dry standard cubic foot | |
| COM | Continuous Opacity Monitoring | dscm | Dry standard cubic meter | |
| Department/ | Michigan Department of Environmental | °F | Degrees Fahrenheit | |
| department | Quality | gr | Grains | |
| EU | | нар | Hazardous Air Poliutant | |
| FG | Flexible Group | Hg | Mercury | |
| GACS | Gallons of Applied Coating Solids | hr | Hour | |
| GU | | HP | Horsepower | |
| GHGS | Greennouse Gases | H ₂ S | Hydrogen Sulfide | |
| HVLP | | kW | Kilowatt | |
| ID ID | | lb | Pound | |
| IRSL | | m | Meter | |
| IISL | Initial Inreshold Screening Level | mg | Milligram | |
| | 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 | |
| Mede | Quality Material Safety Data Shoet | ng | Nanogram Particulate Matter | |
| NA | Not Applicable | PIVI | Particulate Matter equal to or less than 10 | |
| NAAQS | National Ambient Air Quality Standards | PM10 | microns in diameter | |
| NESHAP | National Emission Standard for | 5146 5 | Particulate Matter equal to or less than 2.5 | |
| | Hazardous Air Pollutants | PM2.5 | microns in diameter | |
| NSPS | New Source Performance Standards | pph | Pounds per hour | |
| NSR | New Source Review | ppm | Parts per million | |
| P5 | Performance Specification | ppmv | Parts per million by volume | |
| PSD | Prevention of Significant Deterioration | ppmw | Parts per million by weight | |
| PIE | Permanent Total Enclosure | psia | Pounds per square inch absolute | |
| PII | Permit to Install | psig | Pounds per square inch gauge | |
| RACI | Reasonable Available Control Technology | scf | Standard cubic feet | |
| RUP | Renewable Operating Permit | sec | Seconds | |
| SC | Special Condition | SO_2 | Sultur Dioxide | |
| SUR | Selective Catalytic Reduction | | | |
| SNCR | Selective Non-Catalytic Reduction | Temp | | |
| SRN | | THC | Total Hydrocarbons | |
| | I OXICITY Equivalence Quotient | tpy | I ons per year | |
| USEPA/EPA | United States Environmental Protection | μg | Microgram | |
| VE | Visible Emissions | µm VOC | Micrometer or Micron | |
| v L | | voc | Year | |

Common Abbreviations / Acronyms

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

GENERAL CONDITIONS

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

- 11. Except as provided in subrules (2) and (3) or unless the special conditions of the Permit to Install include an alternate opacity limit established pursuant to subrule (4) of R 336.1301, the permittee shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of density greater than the most stringent of the following. The grading of visible emissions shall be determined in accordance with R 336.1303. (R 336.1301)
 - a) A six-minute average of 20 percent opacity, except for one six-minute average per hour of not more than 27 percent opacity.
 - b) A visible emission limit specified by an applicable federal new source performance standard.
 - c) A visible emission limit specified as a condition of this Permit to Install.
- 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)
- 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 | |
|--|---|--|-------------------|--|
| EU-T0260-09 | EU-T0260-09 is Gas Turbine No.9 at the CPP. Turbine No. 9 is fueled by natural gas or No. 2 fuel oil, and is rated at 3.8 MW. | 9-22-2005 (Modification date) | FG-BT0260-CO | |
| EU-T0260-10 | EU-T0260-10 is Gas Turbine No. 10 at the CPP. Turbine No. 10 is fueled by natural gas or No. 2 fuel oil, and is rated at 3.8 MW. | 4-3-2003 (Modification date) | FG-BT0260-CO | |
| Changes to the equipment described in this table are subject to the requirements of R 336.1201, except as allowed by R 336.1278 to R 336.1290. | | | | |

The following conditions apply to: EU-T0260-09

DESCRIPTION: EU-T0260-09 is Gas Turbine No.9 at the CPP. Turbine No. 9 is fueled by natural gas or No. 2 fuel oil, and is rated at 3.8 MW.

Flexible Group ID: FG-BT0260-CO

POLLUTION CONTROL EQUIPMENT: Water injection system regulating water-to-fuel ratio

I. EMISSION LIMITS

NA

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall equip and maintain EU-T0260-09 with instrumentation to continuously monitor and record the fuel consumption and the ratio of water-to-fuel being fired in EU-T0260-09. The minimum water-to-fuel ratio values shall be 0.5 when firing natural gas and 0.3 when firing fuel oil. This system shall be accurate to within plus or minus 5 percent. (40 CFR 60.334(a))

IV. DESIGN/EQUIPMENT PARAMETERS

NA

The Regents of The University of Michigan (M0675) Permit No. 31-18

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))

- To avoid the requirement in 40 CFR 60.334 (h)(1) to monitor sulfur content on a daily basis for gaseous fuel, the permittee shall demonstrate that the gaseous fuel combusted in EU-T0260-09 meets the definition of "natural gas" as defined in 40 CFR 60.331(u) through use of one of the following sources of information to make the required demonstration:
 - a. The gas quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, specifying that the maximum total sulfur content of the fuel is 20.0 grains/100 scf or less; or
 - b. Representative fuel sampling data which show that the sulfur content of the gaseous fuel does not exceed 20 grains/100 scf. At a minimum, the amount of fuel sampling data specified in section 2.3.1.4 or 2.3.2.4 of appendix D to part 75 of this chapter is required. (40 CFR 60.334(h)(1), 40 CFR 60.334(3)(i) and (ii))
- 2. The permittee shall equip and maintain EU-T0260-09 with instrumentation to continuously monitor and record the fuel consumption and the ratio of water-to-fuel being fired in EU-T0260-09 to demonstrate ongoing compliance with the NOx emission limits. The minimum water-to-fuel ratio in lbs of water injected to lbs of fuel fired shall be 0.5 when firing natural gas and 0.3 when firing fuel oil. This system shall be accurate to within plus or minus 5 percent. (40 CFR 60.334(a))
- 3. The permittee shall notify the AQD of any excursions or exceedances using the procedures specified by R 336.1213(c)(3) and R 336.1912. (R 336.1912)

VII. <u>REPORTING</u>

See Appendix 8

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. SV-B0260-02 | 120 | South Stack: 159 ft. above a | R 336.1224 |
| | | stack base elevation of 873 ft. | 40 CFR 52.21 (c) & (d) |

IX. OTHER REQUIREMENTS

Footnotes:

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

The following conditions apply to: EU-T0260-10

DESCRIPTION: EU-T0260-10 is Gas Turbine No. 10 at the CPP. Turbine No. 10 is fueled by natural gas or No. 2 fuel oil, and is rated at 3.8 MW.

Flexible Group ID: FG-BT0260-CO

POLLUTION CONTROL EQUIPMENT: Water injection system regulating water-to-fuel ratio

I. EMISSION LIMITS

| Pollutant | Limit | Time Period / Operating Scenario | Equipment | Testing / Monitoring Method | Underlying Applicable Requirements |
|-----------|---|--|-------------|-----------------------------------|--|
| 1. CO | 7.54 lbs./hr., when firing natural gas in the turbines, nor 37.87 lbs./hr, when firing No. 2 fuel oil in the turbines. | Hourly | EU-T0260-10 | SC V.5 – SC V.8 | 40 CFR 52.21(d) |

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall equip and maintain EU-T0260-10 with instrumentation to continuously monitor and record the fuel consumption and the ratio of water-to-fuel being fired in EU-T0260-10. The minimum water-to-fuel ratio values shall be 0.5 when firing natural gas and 0.3 when firing fuel oil. This system shall be accurate to within plus or minus 5 percent. (40 CFR 60.334(a))

IV. DESIGN/EQUIPMENT PARAMETERS

NA

V. TESTING/SAMPLING

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

- 1. The permittee shall submit a complete test protocol to the AQD for approval at least 60 days prior to the anticipated CO test date. (R 336.2001, R 336.2003)
- 2. The permittee shall verify the CO emission rate from the EU-T0260-10, by testing, once within the five-year term of the permit. (40 CFR 60.330, R 336.2001, R 336.2003)
- 3. The permittee shall notify the District Supervisor and the Technical Programs Unit no less than seven days prior to the anticipated CO test date. (R 336.2001(4))
- 4. The permittee shall submit a complete test report of the CO test results to the District Supervisor and the Technical Programs Unit within 60 days following the last date of the test. (R 336.2001(5))

VI. MONITORING/RECORDKEEPING

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

- To avoid the requirement in 40 CFR 60.334 (h)(1) to monitor sulfur content on a daily basis for gaseous fuel, the permittee shall demonstrate that the gaseous fuel combusted in EU-T0260-10 meets the definition of "natural gas" as defined in 40 CFR 60.331(u) through use of one of the following sources of information to make the required demonstration:
 - a. The gas quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, specifying that the maximum total sulfur content of the fuel is 20.0 grains/100 scf or less; or
 - Representative fuel sampling data which show that the sulfur content of the gaseous fuel does not exceed 20 grains/100 scf. At a minimum, the amount of fuel sampling data specified in section 2.3.1.4 or 2.3.2.4 of appendix D to part 75 of this chapter is required. (40 CFR 60.334(h)(1) and 60.334 (3)(i) and (ii))
- 2. The permittee shall equip and maintain EU-T0260-10 with instrumentation to continuously monitor and record the fuel consumption and the ratio of water-to-fuel being fired in EU-T0260-10 to demonstrate ongoing compliance with the NOx emission limits. The minimum water-to-fuel ratio in lbs of water injected to lbs of fuel fired shall be 0.5 when firing natural gas and 0.3 when firing fuel oil. This system shall be accurate to within plus or minus 5 percent. (40 CFR 60.334(a))
- 3. The permittee shall notify AQD of any excursions or exceedances using the procedures specified by R 336.1213(c)(3) and R 336.1912. (R 336.1912)
- 4. The Permittee shall maintain and calibrate the fuel and water flow meters consistent with each manufacturer's specifications. (R 336.1910)

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. SV-B0260-02 | 120 | South Stack: 159 ft. above a stack base elevation of 873 ft. | 40 CFR 52.21(d) |

IX. OTHER REQUIREMENTS

Footnotes:

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

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 |
|-------------------|--|---|
| FG-BT0260-CO | Gas Turbine Cogeneration System at the CPP, which consists of two (2) - 4.5 MW gas turbines firing natural gas or fuel oil (Turbine No. 9 and Turbine No. 10), and two (2) - 65,000 steam/hr. heat recovery boilers firing natural gas or fuel oil (Boiler 7 and Boiler 8) | EU-B0260-07, EU-B0260-08, EU-T0260-09, EU-T0260-10 |

The following conditions apply to: FG-BT0260-CO

DESCRIPTION: Gas Turbine Cogeneration System at the CPP, which consists of two (2) - 4.5 MW gas turbines firing natural gas or fuel oil (Turbine No. 9 and Turbine No. 10), and two (2) - 65,000 steam/hr. heat recovery boilers firing natural gas or fuel oil (Boiler 7 and Boiler 8)

Emission Units: EU-B0260-07, EU-B0260-08, EU-T0260-09, EU-T0260-10

POLLUTION CONTROL EQUIPMENT: Water injection system regulating water-to-fuel ratio

I. EMISSION LIMITS

| Pollutant | Limit | Time Period/ | Equipment | Testing / Monitoring | Underlying Applicable |
|-----------|--|-----------------|---|-------------------------|--------------------------|
| 1 Ondtant | | Scenario | Equipment | Method | Requirements |
| 1. NOx | The NOx emissions from the gas turbines, when firing natural gas at full load conditions, shall not exceed 53.3 parts per million by volume, (ppmv), corrected to 15% oxygen, on a dry basis. | Instantaneous. | EU-B0260-07, EU-B0260-08, EU-T0260-09, EU-T0260-10 | SC V.1 – SC V.4 | 40 CFR 52.21(j) |
| 2. NOx | The NOx emissions from the gas turbines, when firing No. 2 fuel oil at full load conditions, shall not exceed 114.8 ppmv, corrected to 15% oxygen, on a dry basis. | Instantaneous | EU-B0260-07, EU-B0260-08, EU-T0260-09, EU-T0260-10 | SC V.1 – SC V.4 | 40 CFR 52.21(j) |
| 3. NOx | The NOx emission rate from the heat recovery steam generators (HRSG) shall not exceed 0.10 Ibs./MMBTUs heat input, based on a 24-hr. average. | 24-hour average | EU-B0260-07, EU-B0260-08, EU-T0260-09, EU-T0260-10 | SC V.1 – SC V.4 | 40 CFR 52.21(j) |

| Pollutant | Limit | Time Period/ Operating | Equipment | Testing / Monitoring | Underlying Applicable |
|-----------|--|---------------------------------|--|-------------------------|--------------------------|
| | | Scenario | | Method | Requirements |
| 4. NOx | The NOx emissions from the gas turbines and HRSGs, hereinafter "cogeneration facility," shall not exceed 30.4 lbs./hr., when firing natural gas in the turbines, nor 47.3 lbs./hr., when firing No. 2 fuel oil in the turbines. | Hourly | EU-B0260-07, EU-B0260-08, EU-T0260-09, EU-T0260-10 | SC V.1 – SC V.4 | 40 CFR 52.21(j) |
| 5. CO | The CO emission rate from the cogeneration facility shall not exceed 29.0 lbs./hr., when firing natural gas in the turbines, nor 72.0 lbs./hr., when firing No. 2 fuel oil in the turbines. | Hourly | EU-B0260-07, EU-B0260-08, EU-T0260-09, EU-T0260-10. | SC V.5 - V.8 | 40 CFR 52.21(d) |
| 6. SO2 | The SO2 emission rate from the gas turbines, when firing No. 2 fuel oil, shall not exceed 0.155 lbs./MMBtu heat input, based on a 24-hr. period. | 24-hour period (lbs./MMBTUs) | EU-B0260-07, EU-B0260-08, EU-T0260-09, EU-T0260-10. | SC VI.3 & VI.4 | 40 CFR 52.21(j) |
| | oil with a 0.15% sulfur content and heat value of 138,000 Btus/gal. | Instantaneous (% S) | | | |

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

- 1. The permittee shall not operate FG-BT0260-CO and EU-TURBINE for more than 1,000 hours in aggregate between the gas turbines per 12-month rolling time period when firing No. 2 fuel oil. (40 CFR 52.21(b)(3), 40 CFR 63.6095(d))
- 2. The permittee shall equip and maintain FG-BT0260-CO with instrumentation to continuously monitor and record the fuel consumption and the ratio of water-to-fuel being fired in FG-BT0260-CO. The minimum water-to-fuel ratio in lbs of water injected to lbs of fuel fired shall be 0.5 when firing natural gas and 0.3 when firing fuel oil. This system shall be accurate to within plus or minus 5 percent. **(40 CFR 60.334(a))**

IV. DESIGN/EQUIPMENT PARAMETERS

V. TESTING/SAMPLING

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

- 1. The permittee shall submit a complete NOx test protocol to the AQD for approval at least 60 days prior to the anticipated test date. (R 336.2003)
- 2. The permittee shall verify the NOx emission rate from the FG-BT260-CO, by testing, once within the five-year term of the permit. (40 CFR 60.330, R 336.2001, R 336.2003)
- 3. The permittee shall notify the District Supervisor and the Technical Programs Unit no less than seven days prior to the anticipated NOx test date. (R 336.2001(4)(3))
- 4. The permittee shall submit a complete test report of the test results to the District Supervisor and the Technical Programs Unit within 60 days following the last date of the NOx test. (**R 336.2001(5)**)
- 5. The permittee shall submit a complete CO test protocol to the AQD for approval at least 60 days prior to the anticipated test date. (R 336.2001(3))
- 6. The permittee shall verify the CO emission rate from the FG-BT0260-CO, by testing, once within the five-year term of the permit. (40 CFR 60.330, R 336.2001, R 336.2003)
- 7. The permittee shall notify the District Supervisor and the Technical Programs Unit no less than seven days prior to the anticipated CO test date. (R 336.2001(4))
- 8. The permittee shall submit a complete test report of the test results to the District Supervisor and the Technical Programs Unit within 60 days following the last date of the CO test. (R 336.2001(5))

VI. MONITORING/RECORDKEEPING

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

- To avoid the requirement in 40 CFR 60.334 (h)(1) to monitor sulfur content on a daily basis for gaseous fuel, the permittee shall demonstrate that the gaseous fuel combusted in FG-BT0260-CO meets the definition of "natural gas" as defined in 40 CFR 60.331(u) through use of one of the following sources of information to make the required demonstration:
 - a. The gas quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, specifying that the maximum total sulfur content of the fuel is 20.0 grains/100 scf or less; or
 - b. Representative fuel sampling data which show that the sulfur content of the gaseous fuel does not exceed 20 grains/100 scf. At a minimum, the amount of fuel sampling data specified in section 2.3.1.4 or 2.3.2.4 of appendix D to part 75 of this chapter is required. (40 CFR 60.334(h)(1), 40 CFR 60.334 (3)(i) and (ii))
- 2. The permittee shall maintain purchase records of the type and quantity of oil, the density, and the sulfur and BTU contents for each shipment of oil received. (40 CFR 52.21(c), (d), and (j))
- 3. The permittee shall monitor the density, sulfur and BTU content of fuel oil by collecting a representative sample of the fuel oil fired at the Central Power Plant during each month that fuel oil is fired. The sample shall be submitted for an independent analysis of the density, sulfur content in percent by weight and BTU per gallon utilizing a method acceptable to AQD. (40 CFR 52.21(c), (d), and (j))
- 4. The permittee shall equip and maintain FG-BT0260-CO with instrumentation to continuously monitor and record the fuel consumption and the ratio of water-to-fuel being fired in FG-BT0260-CO to demonstrate ongoing compliance with the NOx emission limits. The minimum water-to-fuel ratio values shall be 0.5 when firing natural gas and 0.3 when firing fuel oil. This system shall be accurate to within plus or minus 5 percent. (40 CFR 60.334(a))

The Regents of The University of Michigan (M0675) Permit No. 31-18

5. The permittee shall notify AQD of any excursions or exceedances using the procedures specified by R 336.1213(c)(3) and R 336.1912. (R 336.1912)

VII. <u>REPORTING</u>

- 1. SO2: Semiannual reporting of excess emissions required under 40 CFR 60.7(c) are defined as any daily period during which the sulfur content of the fuel being fired exceeds the limit specified in FG-BT0260-CO, SC I.3, pursuant to 40 CFR 60.334 (c)(2), and in a manner specified in 40 CFR 60.7 (c). **(40 CFR 60.334(c)(1)**
- Notification, as well as monitoring and recording of emissions and operating information is required to comply with the Federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60, Subparts A and GG. All notifications shall be submitted, in writing, to the District Supervisor. All source emissions data and operating data shall be kept on file for a period of at least five years and made available to the Air Quality Division upon request. (40 CFR Part 60, Subparts A and GG)
- 3. Such reporting due January 30 for the reporting period July 1 to December 31, and July 30 for the reporting period January 1 to June 30. (40 CFR 60.7(c))

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. SV-B0260-02 | 120 | South Stack: 159 ft. above a | R 336.1225 |
| | | stack base elevation of 873 ft. | R 336.2803 |
| | | | R 336.2804 |

IX. OTHER REQUIREMENTS

- 1. The permittee shall comply with all applicable provisions of 40 CFR Part 60, Subparts A and GG, as they apply to FG-BT0260-CO. **(40 CFR Part 60, Subparts A and GG)**
- 2. The permittee shall comply with all applicable provisions of 40 CFR Part 63, Subparts A and YYYY, as they apply to FG-BT0260-CO. (40 CFR Part 63, Subparts A and YYYY)

Footnotes:

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