University of Michigan Renewable Operating Permit Annual Monitoring/Recordkeeping Compliance Table January 1, 2017 through December 31, 2017			
Permit Condition	**Compliance Status**		**Method Used to Determine Compliance**
	Continuous	**Intermittent**	
Emission Unit: EU-B0260-06 Boiler 6 at Central Power Plant			
1: The permittee shall not operate EU-B0260-06 unless the associated low NOx burner system and flue gas recirculation system is installed and operating properly.	✓		The NOx burner system and flue gas system were installed in 1999 while the boiler was installed. Annual combustion tuning including the gas recirculation system is performed.
I.1: **Opacity**: When burning fuel oil in Boiler No. 6, Permittee shall not discharge to the atmosphere any gases that exhibit greater than 20% opacity (6-minute average), except for one 6-minute period per hour of no more than 27% opacity. This opacity standard applies at all times, except during periods of startup, shutdown, or malfunction.	✓		Opacity: A continuous monitoring system for measuring the opacity of emissions discharged to the atmosphere has been installed, and is calibrated, maintained, and operated by the permittee. The output of the system is recorded when burning fuel oil, according to the requirements of 40 CFR 60.48b, and records of such monitoring are collected and maintained in accordance with 40 CFR 60.49b. COMS is calibrated annually during first calender quarter. Results in annual RATA report.
I.2: **NOx**: The nitrogen oxides (NOx) emission rate from Boiler No. 6 shall not exceed 0.10 pounds per million BTUs heat input, nor 36.0 pounds per hour, based on a 24-hour rolling time period.	✓		NOx: A continuous monitoring system for measuring NOx emissions discharged to the atmosphere has been installed, and is calibrated, maintained, and operated by the permittee. The output of the system is recorded, according to the requirements of 40 CFR 60.48b, and records of such monitoring are collected and maintained in accordance with 40 CFR 60.49b; except that data is collected and reported on the basis of a 24-hour rolling average emission rate as specified by 40 CFR 52.21(j). Alarms are set in the CEMS at 0.090 lbs./MMBtu; 32.0 lbs./hr.; and total 86.0 tons.
I.3: **NOx**: The total combined NOx emission rate from Boiler No. 6 shall not exceed 88.3 tons per 12-month rolling time period. Applicant shall calculate the tons of NOx emissions for the previous 12-month time period by the tenth day of each calendar month.	✓		
I.4: **SO2**: The sulfur dioxide (SO2) emission rate from the boiler shall not exceed 0.30 pounds per million BTUs heat input, and 108.0 pounds per hour, both based upon a 24-hour rolling time period. This is equivalent to using fuel oil with a 0.30% sulfur content and a heat value of 141,200 BTUs per gallon.	✓		Fuel oil usage in Boiler No. 6 is monitored and recorded on a daily basis in a manner and with instrumentation acceptable to the AQD. The fuel oil usage is collected in the CEMS. Alarms set in CEMS at 0.275 lbs/MMBtu; 100 lbs/hr; and total 38.0 tons.
I.5: **SO2**: The total combined SO2 emission rate from the boiler shall not exceed 38.6 tons per 12-month time period. Applicant shall calculate the tons of SO2 emissions for the previous 12-month time period by the tenth day of each calendar month.	✓		
I.6: **VOC**: The volatile organic compounds (VOC) emission rate from the boiler shall not exceed 0.025 pounds per million BTUs heat input and 9.4 pounds per hour, based on a 24-hour rolling time period.	✓		Fuel oil usage in Boiler No. 6 is monitored and recorded on a daily basis in a manner and with instrumentation acceptable to the AQD. The VOC emission rate, heat input, and total tons are monitored through CEMS. Alarms are set in the CEMS at .020 lbs/MMBtu; 9.0 lbs/hr; and total 41.0 tons. VOC shall be tested using EPA Method 25A once within the 5-year term of the RO Permit. Required ROP testing has not been performed during this reporting period. Scheduled for March 2018.
I.7: **VOC**: The total combined VOC emission rate from the boiler shall not exceed 41.2 tons per 12-month rolling time period. Applicant shall calculate the tons of VOC emissions for the previous 12-month time period by the tenth day of each calendar month.	✓		
I.8: **CO**: The carbon monoxide (CO) emission rate from the boiler while firing fuel oil shall not exceed 0.15 pounds per millions BTUs heat input and 54.0 pounds per hour, nor 0.10 pounds per million BTUs heat input while firing natural gas and 37.6 pounds per hour, both based on a 24-hour rolling time period.	✓		Fuel oil usage in Boiler No. 6 is monitored and recorded on a daily basis in a manner and with instrumentation acceptable to the AQD. The CO emission rate, heat input, and total tons for both fuel oil and natural gas are monitored through the CEMS. Alarms are set in the CEMS for natural gas at 0.080 lbs/MMBtu and 35.0 lbs/hr and for fuel oil at 0.125 lbs/MMBtu and 50.0 lbs/hr. The total tons is set to alarm at 170.0 tons. The data is backed through the UM ITS system. CO shall be tested using EPA Method 10 once within the 5-year term of the RO Permit. Required ROP testing has not been performed during this reporting period. Scheduled for March 2018.
I.9: **CO**: The total combined CO emission rate from the boiler shall not exceed 170.3 tons per 12-month rolling time period. Applicant shall calculate the tons of CO emissions for the previous 12-month time period by the tenth day of each calendar month.	✓		

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III.1: The permittee shall only fire natural gas and/or No. 2 fuel oil in EU-B0260-06.	✓		Natural gas and No. 2 fuel are the only two fuels that can be fired at the CPP.
III.2: The permittee shall not exceed a maximum No. 2 fuel oil firing rate of 1,774,286 gallons per 12-month rolling time period as determined by the tenth day of each calendar month in EU-B0260-06.	✓		The fuel oil usage is monitored by the CEMS. The CEMS is set to alarm at 1,600,000 gallons.
V: Records shall be maintained on file for a period of five years.	✓		Documentation filed at EHS and CPP for 5 years.
V.1: **VOC**: The permittee shall submit a complete test protocol to the AQD for approval at least 60 days prior to the anticipated test date.	✓		Required testing has not been performed during the life of the current ROP. Scheduled for March 2018.
V.2: **VOC**: The permittee shall verify the VOC emission rate from EU-B0260-06, by testing, once within the five-year term of the permit.	✓		
V.3: **VOC**: The permittee shall notify the District Supervisor and the Technical Programs Unit no less than seven days prior to the anticipated test date.	✓		
V.4: **VOC**: 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 test.	✓		
V.5: **CO**: The permittee shall submit a complete test protocol to the AQD for approval at least 60 days prior to the anticipated test date.	✓		Required testing has not been performed during the life of the current ROP. Scheduled for March 2018.
V.6: **CO**: The permittee shall verify the CO emission rate from EU-B0260-06, by testing, once within the 5-year term of the permit.	✓		
V.7: **CO**: The permittee shall notify the District Supervisor and the Technical Programs Unit no less than seven days prior to the anticipated test date.	✓		
V.8: **CO**: 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 test.	✓		
VI.1: **Opacity**: The permittee shall install, calibrate, maintain, and operate a continuous monitoring system for measuring the opacity of emissions discharged to the atmosphere and record the output of the system when burning fuel oil, according to the requirements of 40 CFR 60.49b.	✓		The opacity monitor was installed in 1999 while the boiler was being installed. The CEMS collects continuous data while burning fuel oil. The COMS is calibrated annually.
VI.2: **NOx**: The permittee shall install, calibrate, maintain, and operate a continuous monitoring system for measuring the NOx emissions discharged to the atmosphere and record the output of the system, according to the requirements of 40 CFR 60.48b, and shall collect and maintain records of such monitoring in accordance with 40 CFR 60.49b; except that data shall be collected and reported on the basis of a 24-hour rolling average emission rate as specified by 40 CFR 52.21 (j).	✓		The CEMS was installed in 1999 while the boiler was being installed.
VI.3: The permittee shall monitor and record the fuel oil usage in EU-B0260-06 on a daily basis in a manner and with instrumentation acceptable to the AQD.	✓		The fuel oil usage is written on a daily log, collected in the CEMS, the Delta V data acquisition handling system.
VI.4: 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.	✓		The density, sulfur, and BTU content of fuel are monitored. A representative sample of the fuel oil fired at the Central Power Plant is taken during each delivery. The sample is submitted for an independent analysis of the density, sulfur content in percent by weight and BTU per gallon utilizing a method approved by AQD. A sample is taken during every truck delivery along with another sample when the fuel is dropped into each individual tank. The sample results are filed at the CPP. The U of M Utilities Department holds the purchase records.

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VI.5: 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.	✓		The density, sulfur, and BTU content of fuel are monitored. A representative sample of the fuel oil fired at the Central Power Plant is taken during each delivery. The sample is submitted for an independent analysis of the density, sulfur content in percent by weight and BTU per gallon utilizing a method approved by AQD. A sample is taken during every truck delivery along with another sample when the fuel is dropped into each individual tank.
VII.1: Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A.	✓		Deviations are reported within appropriate allotted time. No deviations for Boiler 6 reported during this reporting period.
VII.2: Semi-annual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30.	✓		The semi-annual was submitted by September 15 for the reporting period of January 1 through June 30.
VII.3: Semi-annual reporting of excess NOx emissions during either natural gas firing or fuel-oil firing modes, and/or excess opacity emissions during fuel-oil firing mode pursuant to 40 CFR Subpart Db 60.40b, 60.43b, 60.44b, 60.46b, 60.48b, and specifically 60.49b(h)(2)(ii) and (h)(3) and (h), where no excess emissions occurred during the calendar quarter.	✓		The U of M submits quarterly NOx emissions reports 30 days after the end of the quarter. A copy of the report is located at EHS and at the CPP.
VII.4: Quarterly reporting of excess NOx emissions during either natural gas firing or fuel-oil firing modes, and/or excess opacity emissions, during fuel-oil firing mode for any calendar quarter during which there are excess emissions from EU-B0260-06, as defined in 60.49b(h)(3) and (h)(4), except that instead of a 30-day rolling average NOx emission rate, a 24-hour rolling average NOx emission rate shall be calculated and reported as required by 40 CFR 52.21 (j).	✓		The U of M submits quarterly NOx emissions reports 30 days after the end of the quarter. A copy of the report is located at EHS and at the CPP.
VII.5: Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year.	✓		The annual certification is submitted by March 15 for the reporting period for the previous calendar year.
VIII: Exhaust gases shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted.	✓		The gases discharge vertically upward due to construction of the plant. The stack is visually checked hourly.
VIII.1.a: The maximum exhaust dimension for the south stack is to be 120 inches.	✓		The maximum exhaust dimension is due to construction of the stack.
VIII.1.b: The south stack shall be at a minimum height of 159 feet above a stack base elevation of 873 ft.	✓		The stack is at minimum height above elevation due to construction of the plant.
IX.1: The permittee shall hold allowances for compliance deductions in the source's compliance account of the allowance transfer dealing in an amount not less than the total NOx emissions for the control period from the source pursuant to 40 CFR Part 97.354.	✓		UM holds enough NOx allocations and certifies compliance by November 30.
IX.2: The permittee shall comply with the CAIR Ozone NOx Trading Program provisions of 40 CFR Part 97.301 through 40 CFR 97.388 as adopted and modified by R 336.1802a, R 336.1803 and R 336.1821 through R 336.1826 and as outlined in any complete CAIR Ozone NOx Permit issued by the AQD. The CAIR Ozone NOx Permit No. MI-NOO-880045-201X is hereby incorporated into this ROP as Appendix 9.	✓		UM holds enough NOx allocations and certifies compliance by November 30.
IX.3: The permittee shall comply with all applicable provisions of 40 CFR Part 60, Subparts A and Db, as they apply to EU-B0260-06.	✓		All conditions of Boiler 6 are reviewed to ensure compliance with 40 CFR Part 60.
IX.4: The permittee shall comply with all applicable provisions of 40 CFR Part 63, Subparts A and DDDDD, as they apply to EU-B0260-06.	✓		UM Boiler 6 considered gas unit; Annual maintenance is performed.

Permit Condition	Compliance Status		Method Used to Determine Compliance
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Emission Unit: EU-I0213-02 Crematory Incinerator at Med Sci II			
I.1: **PM**: The particulate emission from the crematorium incinerator shall not exceed 0.20 pounds per 1000 pounds of exhaust gases, corrected to 50% excess air.	✓		Visual inspection for abnormal/excessive smoke is performed at least once a day that the incinerator is operating. A record of all checks is kept, and abnormal conditions trigger initiation of abatement/repair actions. Opacity will be tested using Method 9 - visual determination of the opacity of emission from stationary sources - upon request of AQD, or if abnormal discharges persist following any above described abatement/repair actions.
II.1: **Waste**: The permittee shall not burn any waste in EU-I0213-02 other than the following: **Pathological Wastes**- As defined in the federal Standards of Performance for New Stationary Sources, 40 CFR 60.51c, pathological waste means waste materials consisting of only human or animal remains, anatomical parts, and/or tissue; the bags/containers used to collect and transport the waste material; and animal bedding. This permit applies to Human pathological waste and associated materials.	✓		Only UM materials are allowed.
II.2: **Fuel**: The permittee shall not burn any fuel in EU-I0213-02 other than natural gas.	✓		Only natural gas burned due to construction of unit.
III.1: The permittee shall not charge more than 750 pounds per charge in EU-I0213-02.	✓		Amount of matereial weighed before each burn and documented.
III.2: The permittee shall not combust waste in EU-I0213-02 unless a minimum temperature of 1600°F and a minimum retention time of 1.0 seconds in the secondary combustion chamber are maintained.	✓		The temperature is continuously monitored and due to construction of unit, waste combusted at a minimum temperature of 1600 Fahrenheit. See attached deviation report.
III.3: The incinerator shall be installed, maintained, and operated in a satisfactory manner to control emissions from EU-I0213-02. A list of recommended operating and maintenance procedures is specified in Section A.	✓		Annual maintenance is performed by unit. Operating and maintenance procedures reviewed periodically.
IV.1: The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the temperature in the secondary combustion chamber of EU-I0213-02 on a continuous basis.	✓		The temperature is continuously measured and due to construction of unit.
IV.2: The permittee shall maintain a scale at the facility, for the purpose of verifying the charge weight as required by SC II.2.	✓		All materials weighed on cart prior to burning. Documented in log located on site.
IV.3: The permittee shall not operate EU-I0213-02 unless a high-induction fan is installed, maintained, and operated in a satisfactory manner.	✓		High induction fan failed. Operated under temporary permit no. 176-15. High induction fan removed ; Received revised permit on 4/2017.
V.1: Upon request of the AQD District Supervisor or if abnormal/excessive smoke persist following any abatement/repair actions required by SC VI.5, the permittee shall perform a certified visible emissions reading, as a surrogate for PM, according to EPA Method 9. The permittee shall keep all records on file and make them available to the Department upon request.	✓		No abnormal/ excessive smoke during this reporting period.
VI.1: The permittee shall monitor and record the temperature in the secondary combustion chamber of EU-I0213-02 on a continuous basis.		✓	The unit records the temperature continuously. *See attached deviation report.*
VI.2: The permittee shall keep, in a satisfactory manner, daily records of the time (duration of burn), description and weight of waste combusted in EU-I0213-02, as required by SC II.1 and SC II.2. The permittee shall keep all records on file and make them available to the Department upon request.	✓		All records are kept on site with unit.
VI.3: The permittee shall keep, in a satisfactory manner, secondary combustion chamber temperature records for EU-I0213-02, as required by SC IV 1. The permittee shall keep all records on file and make them available to the Department upon request.	✓		All records are kept on site with unit.
VI.4: The permittee shall keep, in a satisfactory manner, a record of all service, maintenance and equipment inspections for EU-I0213-02. The record shall include the description, reason, date and time of the service, maintenance or inspection. The permittee shall keep all records on file and make them available to the Department upon request.	✓		Maintenance log kept on site with unit.

Permit Condition	Compliance Status		Method Used to Determine Compliance
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VI.5: The permittee shall perform an uncertified visible emissions reading at least once per operating day, to determine the presence of abnormal/excessive smoke. Abnormal conditions shall trigger initiation of abatement/repair actions. A record shall be made of all readings. The permittee shall keep all records on file and make them available to the Department upon request.	✓		Visible emission reading performed once per day when burning. Log kept on site with unit. *Readings are being performed every burn per temporary permit no. 176-15* .
VII.1: Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A.	✓		No deviations during this reporing period.
VII.2: Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30.	✓		The semi-annual was submitted by September 15 for the reporting period of January 1 through June 30.
VII.3: Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year.	✓		The annual certification is submitted by March 15 for the reporting period for the previous calendar year.
VIII. Exhaust gases shall be discharged, unobstructed, vertically upwards unless otherwise noted.	✓		The gases discharge vertically upward due to construction of the incinerator.
VIII.1.a: The maximum exhaust dimension shall be 20 inches.	✓		The maximum exhaust dimension is due to construction of the stack.
VIII.1.b: The minimum height of the stack shall be 100 feet above ground.	✓		The stack is at minimum height due to construction of crematory.
IX.1: Designate a trained operator for the unit and make that person responsible for compliance with the air pollution control requirements.	✓		Incinerator Operator reviews guidelines on a regular basis and follows manufacturer's recommendations.
IX.2: Clean grates/hearth before each day's operation (more often if necessary) and dispose of the ashes properly.	✓		
IX.3: Do not combust waste until the secondary combustion chamber (afterburner) is at or above the minimum required temperature. This temperature must be maintained for the duration of the burn cycle.	✓		
IX.4: Do not overload the incinerator. Stay within the given loading rates and follow the manufacturer's instructions.	✓		
IX.5: Schedule charges to minimize opening the charging door as infrequently as possible. Opening the charging door lets cold air in and quenches the fire, causing smoke.	✓		
IX.6: Burn only the type of wastes that the incinerator has been approved to burn. Follow the manufacturer's instructions to maximize the efficiency of the unit and to properly burn the waste.	✓		
IX.7: Keep the combustion air adjusted according to the manufacturer's instructions.	✓		
IX.8: Observe the stack frequently and adjust the operation as necessary to eliminate smoke and fly ash.	✓		
IX.9: Post a copy of the manufacturer's manual and this Guideline near the incinerator.	✓		
IX.10: Make quarterly inspections to check and service all of the equipment. If a qualified person is not available for proper inspections, a service contract with a reputable manufacturer is advisable.	✓		
IX.11: Follow manufacturer's operation and maintenance guidelines.	✓		

Permit Condition	Compliance Status		Method Used to Determine Compliance
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Emission Unit: EU-I0213-02 Crematory Incinerator at Med Sci II (without high induction fan; conditions different than original permit)			
II.1: **Waste**: The permittee shall not burn any waste in EU-I0213-02 other than the following: **Pathological Wastes**- As defined in the federal Standards of Performance for New Stationary Sources, 40 CFR 60.2977, pathological waste means waste materials consisting of only human or animal remains, anatomical parts, and/or tissue; the bags/containers used to collect and transport the waste material; and animal bedding. This emissions unit applies to Human pathological waste and associated materials. Gross Anatomy Lab Waste - Gross Anatomy Lab waste means waste materials that have come into contact with the pathological waste kept within the Gross Anatomy Lab. For pathological waste incinerators, pathological waste shall be 90% or more, by weight, in aggregate, of the total waste burned in EU-I0213-02 as measure on a calendar quarter basis.	✓		Only UM materials are allowed. Weights kept on sight and calculated on a quarterly basis to ensure less than 10% by weight of non-pathological waste burned.
II.2: The permittee shall burn only non-hazardous waste in EU-I0213-02.	✓		Only pathological and non-hazardous waste burned in EU-I0213-02.
IV.2: The permittee shall maintain a scale at the facility, for the purpose of verifying the charge weight as required by SC III.1.	✓		All materials weighed on cart prior to burning. Documented in log located on site.
IV.3: The permittee shall not operate EU-I0213-02 unless the secondary combustion chamber with afterburner is installed, maintained, and operated in a satisfactory manner.	✓		The unit is designed to with a secondary combustion chamber with an afterburner.
VI.2: The permittee shall keep, in a satisfactory manner, daily records of the time (duration of burn), description and weight of waste combusted in EU-I0213-02, as required by SC II.1 and SC III.1. The permittee shall keep all records on file and make them available to the Department upon request.	✓		All records are kept on site with unit.
VI.3: The permittee shall calculate the weight percent of pathological waste burned in EU-I213-02, as required by SC II. 1, on a calendar quarter basis. All records shall be kept on file and made available to the Department upon request.	✓		All records are kept on site with unit.
VI.4: The permittee shall keep, in a satisfactory manner, secondary combustion chamber temperature records for EU-I0213-02, as required by SC IV 1. The permittee shall keep all records on file and make them available to the Department upon request.	✓		All records are kept on site with unit.
VI.5: The permittee shall keep, in a satisfactory manner, a record of all service, maintenance and equipment inspections for EU-I0213-02. The record shall include the description, reason, date and time of the service, maintenance or inspection. The permittee shall keep all records on file and make them available to the Department upon request.	✓		Maintenance log kept on site with unit.
VI.6: The permittee shall perform an uncertified visible emissions reading at least once per operating day, to determine the presence of abnormal/excessive smoke. Abnormal conditions shall trigger initiation of abatement/repair actions. A record shall be made of all readings. The permittee shall keep all records on file and make them available to the Department upon request.	✓		Visible emission reading performed once per day when burning. Log kept on site with unit. *Readings are being performed every burn per temporary permit no. 176-15* .
Emission Unit: EU-T0260-09 Gas Turbine 9 at Central Power Plant			
1. The permittee shall not operate EU-T0260-09, when firing natural gas, unless the water injection system is installed and operating at a water-to-fuel ratio of at least 0.5 (by weight), or alternate water-to-fuel ratio as determined by testing. Any alternate water-to-fuel ratio must be approved by the District Supervisor prior to implementation. Performance criteria used to obtain representative data and the means by which an exceedance or excursion will be defined are described in SC VI.4, below.		✓	The gas turbines are equipped and maintained with instrumentation to continuously monitor and record the fuel consumption and the ratio of water to fuel being fired in each turbine. This system must be accurate to within plus or minus 5 percent. Flow rate data kept in Delta V. The DCS alarms if the water-to-fuel ratio goes below limit or there is loss of NOx water. *See attached deviation report.*
2. The permittee shall not operate EU-T0260-09, when firing No. 2 fuel oil, unless EU-T0260-09 is at full load conditions and unless the water injection system is installed and operating at a water-to-fuel ratio of at least 0.3 (by weight), or alternate water-to-fuel ratio as determined by testing. Any alternate water-to-fuel ratio must be approved by the District Supervisor prior to implementation. The permittee shall conduct the monitoring/recordkeeping in accordance with the requirements specified in 40 CFR 64.7 through 64.9.	✓		The gas turbines are equipped and maintained with instrumentation to continuously monitor and record the fuel consumption and the ratio of water to fuel being fired in each turbine. This system must be accurate to within plus or minus 5 percent. Operational procedures ensure full load. Flow rate data kept in Delta V and a strip chart recorder. The DCS alarms if the water-to-fuel ratio goes below limit or there is loss of NOx water.
III.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 fuel consumption rate shall be monitored by a differential pressure orifice meter and the water injection rate shall be monitored using a turbine meter. 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.	✓		The gas turbines are equipped and maintained with instrumentation to continuously monitor and record the fuel consumption and the ratio of water to fuel being fired in each turbine. This system must be accurate to within plus or minus 5 percent.

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III.2: Upon detecting an excursion or exceedance, the permittee shall restore operation of EU-T0260-09 to its normal or usual manner or operation as expeditiously as practicable in accordance with good engineering practices for minimizing air emission.	✓		No exursion or exceedances were detected during this reporting period.
III.3: The permittee shall collect data for all required monitoring for all required intervals that EU-T0260-09 is operated, except for defined malfunction, repairs, and QA/QC activities.	✓		The Delta V collects all required data while operating.
VI.1: 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.	✓		DTE provided UM with a letter stating the natural gas sulfur content is less than 20.0 grains/100scf or less. Letter filed at EHS.
VI.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. The fuel consumption rate shall be monitored by a differential pressure orifice meter and the water injection rate shall be monitored using a turbine meter. 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.	✓		The gas turbines are equipped and maintained with instrumentation to continuously monitor and record the fuel consumption and the ratio of water to fuel being fired in each turbine. This system must be accurate to within plus or minus 5 percent.
VI.3: The water-to-fuel ratio value shall be recorded by the CPP data acquisition system with, at a minimum, four data points equally spaced over each hour. Compliance with the water-to-fuel ratio values shall be determined by comparing the average of all data points for each operating hour with the minimum values described in. An excursion from the indicator range will be defined as any hour in which the average water-to-fuel ratio is less than the minimum values of 0.5 when firing natural gas and 0.3 when firing fuel oil. Any alternate water-to-fuel ratio must be approved by the District Supervisor prior to implementation.	✓		The gas turbines are equipped and maintained with instrumentation to continuously monitor and record the fuel consumption and the ratio of water to fuel being fired in each turbine. This system must be accurate to within plus or minus 5 percent. Delta V collects all required data while operating.
VI.4: The only monitoring necessary to demonstrate ongoing compliance with the NOx emission limits for EU-T0260-09 will be the ratio of water injected (pounds) to fuel fired (pounds). Data is obtained through the use of fuel flow and water flow meters installed in the piping used to deliver both to the turbine. Natural gas flow rate to the turbine is monitored using an orifice meter and water and fuel oil flow rates are monitored using turbine flowmeters. These meters have been obtaining representative data since the original gas turbine No. 9 was installed in 1989 and were installed in locations consistent with manufacturer's recommendations, and were calibrated and certified by the manufacturer. These flow meters will continue to be maintained and calibrated consistent with each manufacturer's specifications.	✓		All meters are calibrated annually during the overhaul as per the manufacturer specifications.
VI.5: 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.	✓		No excursions or exceedences occurred during this reporting period.
VI.6: Pursuant to 40 CFR 64, the permittee shall conduct all monitoring specified in SC VI. 1-5 and shall satisfy all requirements specified by 40 CFR 64.7 through 40 CFR 64.9.	✓		The gas turbines are equipped and maintained with instrumentation to continuously monitor and record the fuel consumption and the ratio of water to fuel being fired in each turbine. This system must be accurate to within plus or minus 5 percent.
VI.7: The required monitoring shall be installed and its operation status verified using the procedures of SC VI.4 upon issuance of this permit.	✓		The gas turbines are equipped and maintained with instrumentation to continuously monitor and record the fuel consumption and the ratio of water to fuel being fired in each turbine. This system must be accurate to within plus or minus 5 percent. The meters are calibrated annually.
VI.8: Except for malfunctions, repairs, and quality assurance/quality control activities, the monitoring system shall collect data for all required intervals.	✓		The gas turbines are equipped and maintained with instrumentation to continuously monitor and record the fuel consumption and the ratio of water to fuel being fired in each turbine. This system must be accurate to within plus or minus 5 percent.
VII.1: Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A.	✓		No deviations during this reporing period.
VII.2: Semi-annual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30.	✓		The semi-annual was submitted by September 15 for the reporting period of January 1 through June 30.
VII.3: Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year.	✓		The annual certification is submitted by March 15 for the reporting period for the previous calendar year.

Permit Condition	Compliance Status		Method Used to Determine Compliance
	Continuous	Intermittent	
VII.4: In addition to the reporting requirements specified by General Condition Nos. 23 through 29 of this ROP, the permittee shall submit semi-annual compliance assurance monitoring reports that include, at a minimum: a. Summary information regarding the number, duration, and cause of exceedances and excursions and the corrective actions taken, and b. Summary information regarding monitor downtime.	✓		No exceedances occurred during this reporting period.
VIII: Exhaust gas shall be discharged, unobstructed, vertically upwards to the ambient air unless otherwise noted.	✓		The gases discharge vertically upward due to construction of the plant. The stack is visually checked hourly.
VIII.1.a: The maximum exhaust dimensions shall be 120 inches.	✓		The maximum exhaust dimension is due to the construction of the stack.
VIII.1.b: The minimum stack height above ground shall be 159 feet above a stack base elevation of 873 feet.	✓		The stack is at minimum height above elevation due to construction of the plant.
IX.1: The permittee shall notify the appropriate District Office of the AQD for the need to modify the monitoring plan if approved monitoring is found to be inadequate and shall submit a proposed modification to the plan if appropriate.	✓		No modifications to the monitoring plan.
IX.2: The permittee shall, at all times, maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.	✓		The meters are calibrated annually during turbine overhaul.
IX.3: In the event that an exceedance or an excursion occurs, EU-T0260-09 shall be shut down or restored to the specified water-to-fuel ratio as quickly as possible.	✓		No exceedances occurred during this reporting period.
IX.4: The permittee shall maintain the water-to-fuel monitoring system consistent with manufacturer's recommendations including, but not limited to, maintaining necessary parts for routine repairs.	✓		The monitoring system is maintained as per the manufacturer specifications. The meters are calibrated annual during turbine maintenance overhaul.
IX.5: The permittee shall promptly notify the AQD of the need to modify the monitoring plan if it is found to be inadequate and shall submit a proposed modification to the ROP if necessary.	✓		No modifications to the monitoring plan.
IX.6: The permittee shall comply with all applicable provisions of 40 CFR Part 64, as they apply to EU-T0260-09.	✓		The compliance assurance plan was approved by the MDEQ as per 40 CFR Part 64.
Emission Unit: EU-T0260-10 Gas Turbine 10 at Central Power Plant			
1: The permittee shall not operate EU-T0260-10, when firing natural gas, unless the water injection system is installed and operating at a water-to-fuel ratio of at least 0.5 (by weight), or alternate water-to-fuel ratio as determined by testing. Any alternate water-to-fuel ratio must be approved by the District Supervisor prior to implementation. Performance criteria used to obtain representative data and the means by which as exceedance or excursion will be defined are in SC VI.4 below.		✓	The gas turbines are equipped and maintained with instrumentation to continuously monitor and record the fuel consumption and the ratio of water to fuel being fired in each turbine. This system must be accurate to within plus or minus 5 percent. Flow rate data kept in Delta V. The DCS alarms if the water-to-fuel ratio goes below limit or there is loss of NOx water. *See attached deviation reports.*
2. The permittee shall not operate EU-T0260-10, when firing No. 2 fuel oil, unless EU-T0260-10 is at full load conditions and unless the water injection system is installed and operating at a water-to-fuel ratio of at least 0.3 (by weight), or alternate water-to-fuel ratio as determined by testing. Any alternate water-to-fuel ratio must be approved by the District Supervisor prior to implementation. The permittee shall conduct the monitoring/recordkeeping in accordance with the requirements specified in 40 CFR 64.7 through 64.9.	✓		The gas turbines are equipped and maintained with instrumentation to continuously monitor and record the fuel consumption and the ratio of water to fuel being fired in each turbine. This system must be accurate to within plus or minus 5 percent. Operational procedures ensure full load. Flow rate data kept in Delta V and a strip chart recorder. The DCS alarms if the water-to-fuel ratio goes below limit or there is loss of NOx water.
I.1: **CO**: The CO emission rate from EU-T0260-10 shall not exceed 7.54 pounds per hour, when firing natural gas in the turbines, nor 37.87 pounds per hour, when firing No. 2 fuel oil in the turbines.	✓		III.B.4-6: **CO**: Shall be tested using EPA Method 10 once within 5-year term of the RO permit. Required ROP testing has not been performed during this reporting period.
III.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 fuel consumption rate shall be monitored by a differential pressure orifice meter and the water injection rate shall be monitored using a turbine meter. 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.		✓	The gas turbines are equipped and maintained with instrumentation to continuously monitor and record the fuel consumption and the ratio of water to fuel being fired in each turbine. This system must be accurate to within plus or minus 5 percent. *See attached deviation report* .
III.2: Upon detecting an excursion or exceedance, the permittee shall restore operation of EU-T0260-10 to its normal or usual manner or operation as expeditiously as practicable in accordance with good engineering practices for minimizing air emission.	✓		No excursions or exceedences occurred during this reporting period.
III.3: The permittee shall collect data for all required monitoring for all required intervals that EU-T0260-10 is operated, except for defined malfunction, repairs, and QA/QC activities.	✓		The Delta V collects all required data while operating.

Permit Condition	Compliance Status		Method Used to Determine Compliance
	Continuous	Intermittent	
V.1: **CO**: The permittee shall submit a complete test protocol to the AQD for approval at least 60 days prior to the anticipated test date.	✓		The required testing has not been completed during the life of the current ROP. Scheduled for March 2018.
V.2: **CO**: The permittee shall verify the CO emission rate from the EU-T0260-10, by testing, once within the five-year term of the permit.	✓		
V.3: **CO**: The permittee shall notify the District Supervisor and the Technical Programs Unit no less than seven days prior to the anticipated test date.	✓		
V.4: **CO**: 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 test.	✓		
VI.1: 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 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.	✓		DTE provided UM with a letter stating the natural gas sulfur content is less than 20.0 grains/100scf or less. Letter filed at EHS.
VI.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. The fuel consumption rate shall be monitored by a differential pressure orifice meter and the water injection rate shall be monitored using a turbine meter. 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.	✓		The gas turbines are equipped and maintained with instrumentation to continuously monitor and record the fuel consumption and the ratio of water to fuel being fired in each turbine. This system must be accurate to within plus or minus 5 percent.
VI.3: The water-to-fuel ratio values shall be recorded by the CPP data acquisition system with, at a minimum, four data points equally spaced over each hour. Compliance with the water-to-fuel ratio values shall be determined by comparing the average of all data points for each operating hour with the minimum values described in SC VI.3, above. An excursion from the indicator range will be defined as any hour in which the average water-to-fuel ratio is less than the minimum values of 0.5 when firing natural gas and 0.3 when firing fuel oil. Any alternate water-to-fuel ratio must be approved by the District Supervisor prior to implementation.	✓		The gas turbines are equipped and maintained with instrumentation to continuously monitor and record the fuel consumption and the ratio of water to fuel being fired in each turbine. This system must be accurate to within plus or minus 5 percent. Data collected in Delta V.
VI.4: The only monitoring necessary to demonstrate ongoing compliance with the NOx emission limits for EU-T0260-10 will be the ratio of water injected (pounds) to fuel fired (pounds). Data is obtained through the use of fuel flow and water flow meters installed in the piping used to deliver both to the turbine. Natural gas flow rate to the turbine is monitored using an orifice meter and water and fuel oil flow rates are monitored using turbine flowmeters. These meters have been obtaining representative data since the original Gas Turbine No. 10 was installed in 1989 and were installed in locations consistent with manufacturer's recommendations, and were calibrated and certified by the manufacturer. These flow meters will continue to be maintained and calibrated consistent with each manufacturer's specifications.	✓		All meters are calibrated annually during the overhaul as per the manufacturer specifications.
VI.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.	✓		No excursions or exceedences occurred during this reporting period.
VI.6: Pursuant to 40 CFR 64, the permittee shall conduct all monitoring specified in SC VI. 1-5 and shall satisfy all requirements specified by 40 CFR 64.7 through 40 CFR 64.9.	✓		The gas turbines are equipped and maintained with instrumentation to continuously monitor and record the fuel consumption and the ratio of water to fuel being fired in each turbine. This system must be accurate to within plus or minus 5 percent.
VI.7: The required monitoring shall be installed and its operational status verified using the procedures of SC VI.4 upon issuance of this permit.	✓		The meters are calibrated annually during turbine overhaul.
VI.8: Except for malfunctions, repairs, and quality assurance/quality control activities, the monitoring system shall collect data for all required intervals.	✓		The gas turbines are equipped and maintained with instrumentation to continuously monitor and record the fuel consumption and the ratio of water to fuel being fired in each turbine. This system must be accurate to within plus or minus 5 percent.
VII.1: Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A.	✓		No deviations during this reporing period.
VII.2: Semi-annual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30.	✓		The semi-annual was submitted by September 15 for the reporting period of January 1 through June 30.
VII.3: Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year.	✓		The annual certification is submitted by March 15 for the reporting period for the previous calendar year.

Permit Condition	Compliance Status		Method Used to Determine Compliance
	Continuous	Intermittent	
VII.4: In addition to the reporting requirements specified by General Condition Nos. 23 through 29 of this ROP, the permittee shall submit semi-annual compliance assurance monitoring reports that include, at a minimum: a. Summary information regarding the number, duration, and cause of exceedances and excursions and the corrective actions taken, and b. Summary information regarding monitor downtime.	✓		No exceedances occurred during this reporting period.
VIII: Exhaust gases shall be discharged unobstructed vertically upwards unless otherwise noted.	✓		The gases discharge vertically upward due to construction of the plant. The stack is visually checked hourly.
VIII.1.a: The maximum exhaust dimension shall be 120 inches.	✓		The maximum exhaust dimension is due to construction of the stack.
VIII.1.b: The minimum height of the south stack shall be 159 feet above a stack base elevation of 873 feet.	✓		The stack is at minimum height above elevation due to construction of the plant.
IX.1: The permittee shall notify the appropriate District Office of the AQD for the need to modify the monitoring plan if the approved monitoring is found to be inadequate and shall submit a proposed modification to the plan if appropriate.	✓		No modifications to the monitoring plan.
IX.2: The permittee shall, at all times, maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.	✓		The monitoring is maintained and the meters are calibrated annually.
IX.3: In the event that an exceedance or an excursion occurs, EU-T0260-10 shall be shut down or restored to the specified water-to-fuel ratio as quickly as possible.	✓		No exceedances occurred during this reporting period.
IX.4: The permittee shall maintain the water-to-fuel monitoring system consistent with manufacturer's recommendations including, but not limited to, maintaining necessary parts for routine repairs.	✓		The monitoring is maintained and the meters are calibrated annually.
IX.5: The permittee shall promptly notify AQD of the need to modify the monitoring plan if it is found to be inadequate and shall submit a proposed modification to the ROP if necessary.	✓		No modifications to the monitoring plan.
IX.6: The permittee shall comply with all applicable provisions of 40 CFR Part 64, as they apply to EU-T0260-10.	✓		The compliance assurance plan was approved by the MDEQ as per 40 CFR Part 64.
Emission Unit: EU-B0805-02 Boiler No. 2 at the Hoover Heating Plant			
I.1: **NOx**: The nitrogen oxides emission rate from Boiler No. 2 when firing natural gas shall not exceed 0.018 pounds per MMBtu.	✓		The fuel usage is recorded on a daily basis.
I.2: **NOx**: The nitrogen oxides emission rate from Boiler No. 2 when firing natural gas shall not exceed 0.37 pounds per hour.	✓		The fuel usage is recorded on a daily basis.
I.3: **NOx**: The nitrogen oxides emission rate from Boiler No. 2 when firing fuel oil shall not exceed 0.113 pounds per MMBtu.	✓		The fuel usage is recorded on a daily basis.
I.4: **NOx**: The nitrogen oxides emission rate from Boiler No. 2 when firing fuel oil shall not exceed 2.3 pounds per hour.	✓		The fuel usage is recorded on a daily basis.
I.5: **Opacity**: Permittee shall not discharge to the atmosphere from Boiler No. 2 any gases that exhibit greater that 20% opacity (6-minute average).	✓		The stack is observed periodically.
II.1: **Fuel Oil**: Sulfur content of fuel oil shall not exceed 0.25% by weight.	✓		Permittee shall monitor the density, sulfur, and BTU content of fuel oil by collecting a representative sample of the fuel oil fired at the Hoover 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 approved by AQD. The sample is taken during every truck delivery. The fuel analyses are kept on site at the Hoover Heating Plant.

Permit Condition	Compliance Status		Method Used to Determine Compliance
	Continuous	Intermittent	
IIII.1: The permittee shall only combust natural gas and/or fuel oil in EU-B0805-02.	✓		Natural gas and No. 2 fuel oil are the only two fuels that can be fired at the HHP.
III.2: The permittee shall install, maintain, and operate each boiler in EU-B0805-02 according to the manufacturer's written instructions, or procedures developed by the owner/operator and approved by the boiler manufacturer, over the entire life of each boiler.	✓		UM operates the boiler in accordance to the manufacturer.
III.3: The permittee shall permanently de-commission the existing Boiler 2 before initiating trial operation of the new Boiler 2 (EU-B0805-02). Prior to initiating trial operation of the new Boiler 2 (EU-B0805-02), the permittee shall formally notify the District Supervisor and certify the existing Boiler 2 has been decommissioned and permanently removed from service.	✓		Old Boiler 2 was decommissioned prior to new Boiler 2 being installed. Letter submitted to the DEQ October 10, 2012.
IV.1: The maximum design heat input rate of each boiler in EU-B0805-02 shall not exceed 31.4 million British thermal units per hour (MMBtu/hr) on a fuel heat input basis.	✓		The maximum design is due to construction of the unit.
VI.1: The permittee shall monitor and record the fuel oil usage in EU-B0805-02 on a daily basis in a manner and with instrumentation acceptable to the AQD.	✓		Fuel oil usage for Boiler 2 is recorded daily.
VI.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.	✓		The UM Utilities department maintains purchase records.
VI.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 Hoover Heating 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.	✓		The density, sulfur, and BTU content of fuel are monitored. A representative sample of the fuel oil fired at the Hoover Heating Plant is taken during each delivery. The sample is submitted for an independent analysis of the density, sulfur content in percent by weight and BTU per gallon utilizing a method approved by AQD. A sample is taken during every truck delivery along with another sample when the fuel is dropped into each individual tank.
VII.1: Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A.	✓		No deviations during this reporing period.
VII.2: Semi-annual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30.	✓		The semi-annual was submitted by September 15 for the reporting period of January 1 through June 30.
VII.3: Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year.	✓		The annual certification is submitted by March 15 for the reporting period for the previous calendar year.
VIII: Exhaust gases shall be discharged, unobstructed, vertically upwards to the ambient air unless otherwise noted.	✓		The gases discharge vertically upward due to construction of the plant.
VIII.1.a: The maximum exhaust dimension shall be 20 inches.	✓		The maximum exhaust dimension is due to construction of stack.
VIII.1.b: The minimum height of the stack above ground shall be 50 feet.	✓		The maximum height of stack is due to construction.
IX.1: The permittee shall keep, in a satisfactory manner, monthly natural gas and fuel oil usage records for EU-B0805-02. All records shall be kept on file for a period of at least five years and made available to the Department upon request.	✓		Daily usage logs are kept on stie with unit.

Permit Condition	Compliance Status		Method Used to Determine Compliance
	Continuous	Intermittent	
IX.2: The permittee shall keep, in a satisfactory manner, fuel oil supplier certification for each delivery of fuel oil. The certification shall include the name of the fuel oil supplier and a statement from the fuel oil supplier that the fuel oil complies with the specifications under the definition of distillate oil in 40 CFR 60.41c.	✓		Supplier certifications kept on site with unit.
IX.3: The permittee shall comply with all applicable provisions of 40 CFR Part 60, Subparts A and Dc, as they apply to EU-B0805-02.	✓		All conditions of Boiler 2 are reviewed to ensure compliance with 40 CFR Part 60.
IX.4: The permittee shall comply with all applicable provisions of 40 CFR Part 63, Subparts A and DDDDD, as they apply to EU-B0805-02.	✓		UM Boiler 2 performs annual maintenance to meet subpart DDDDD.
Emission Unit: EU-B0805-03 Boiler No. 3 at Hoover Heating Plant			
I.1: **Opacity**: Permittee shall not discharge to the atmosphere from Boiler No. 3 any gases that exhibit greater that 20% opacity (6-minute average).	✓		Within 60 days after acchieving maximum production rate, but not later than 180 days after commencement of trial operation of firing fuel oil, federal standards of Peformance of New source stationary sources require evaluation of visible emissions when firing fuel oil. Opacity test was performed May 1, 2008.
II.1: **Fuel Oil**: Sulfur content of fuel oil shall not exceed 0.25% by weight.	✓		The density, sulfur, and BTU content of fuel are monitored. A representative sample of the fuel oil fired at the Hoover Heating Plant is taken during each delivery. The sample is submitted for an independent analysis of the density, sulfur content in percent by weight and BTU per gallon utilizing a method approved by AQD. A sample is taken during every truck delivery along with another sample when the fuel is dropped into each individual tank.
III.1: The permittee shall only fire natural gas and/or No. 2 fuel oil in EU-B0805-03	✓		Natural gas and No. 2 fuel oil are the only two fuels that can be fired at the HHP.
VI.1: The permittee shall monitor, in a satisfactory manner, the natural gas and fuel oil usage from EU-B0805-03 on a monthly basis.	✓		The natural gas and fuel oil usage are documented daily.
VI.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.	✓		The purchase records and supplier certifications are reviewed and copies are kept on site with unit. Purchase records also filed with the UM Utilities Department.
VI.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 Hoover Heating 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.	✓		The density, sulfur, and BTU content of fuel are monitored. A representative sample of the fuel oil fired at the Hoover Heating Plant is taken during each delivery. The sample is submitted for an independent analysis of the density, sulfur content in percent by weight and BTU per gallon utilizing a method approved by AQD. A sample is taken during every truck delivery along with another sample when the fuel is dropped into each individual tank.
VII.1: Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A.	✓		No deviations during this reporing period.
VII.2: Semi-annual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30.	✓		The semi-annual was submitted by September 15 for the reporting period of January 1 through June 30.
VII.3: Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year.	✓		The annual certification is submitted by March 15 for the reporting period for the previous calendar year.
VIII: Exhaust gases shall be discharged, unobstructed, vertically upwards to the ambient air unless otherwise noted.	✓		The gases discharge vertically upward due to construction of the plant.
VIII.1.a: The maximum exhaust dimension shall be 26 inches.	✓		The maximum exhaust dimension is due to construction of the stack.

Permit Condition	Compliance Status		Method Used to Determine Compliance
	Continuous	Intermittent	
VIII.1.b: The minimum height of the stack above ground shall be 30 feet.	✓		The maximum height of stack is due to construction.
IX.1: The permittee shall keep, in a satisfactory manner, monthly natural gas and fuel oil usage records for EU-B0805-03. All records shall be kept on file for a period of at least five years and made available to the Department upon request.	✓		The natural gas and fuel oil usage are documented daily.
IX.2: The permittee shall keep, in a satisfactory manner, fuel oil supplier certification for each delivery of fuel oil. The certification shall include the name of the fuel oil supplier and a statement from the fuel oil supplier that the fuel oil complies with the specifications under the definition of distillate oil in 40 CFR 60.41c.	✓		Supplier certifications kept on site with unit.
IX.3: The permittee shall comply with all applicable requirements of 40 CFR Part 60, Subparts A and Dc, as they apply to EU-B0805-03.	✓		All conditions of Boiler 3 are reviewed to ensure compliance with 40 CFR Part 60.
IX.4: The permittee shall comply with all provisions of 40 CFR Part 63, Subparts A and DDDDD, as they apply to EU-B0805-03.	✓		UM Boiler 3 performs annual maintenance to meet subpart DDDDD.
Emission Unit: EU-B550-GEN Emergency Generator at NCRC Building 550			
I.1: **NOx**: Nitrogen Oxide emissions shall not exceed 15 tons per 12-month rolling time period as determined at the end of each calendar month.	✓		Monthly calculation of Nox in tons per year.
III.1: The permittee shall not operate EU-B550-GEN for more than 500 hours per 12-month rolling time period as determined at the end of each calendar month.	✓		Records of operating hours by monthly preventative maintenance task readings.
VI.1: The permittee shall keep monthly and previous 12-month NOx calculation records for EU-B550-GEN. All records shall be kept on file for a period of at least five years and made available to the Air Quality Division upon request.	✓		All monthly records kept on for a period of 5 years.
VI.2: The permittee shall monitor and record the hours of operation for EU-B550-GEN each month in a manner and with instrumentation acceptable to the District Supervisor, Air Quality Division.	✓		Records of operating hours by monthly preventative maintenance task readings.
VII.1: Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A.	✓		No deviations during this reporing period.
VII.2: Semi-annual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30.	✓		The semi-annual was submitted by September 15 for the reporting period of January 1 through June 30.
VII.3: Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year.	✓		The annual certification is submitted by March 15 for the reporting period for the previous calendar year.
IX.1: The permittee shall comply with all applicable provisions of 40 CFR, Part 63, Subparts A and ZZZZ as they apply to EU-B550-GEN.	✓		The only applicable requirement, initial notification, was submitted under ownership of Pfizer.

Permit Condition	Compliance Status		Method Used to Determine Compliance
	Continuous	Intermittent	
Emission Unit: EU-TURBINE Turbine located at NCRC Powerhouse			
I.1: **NOx**: Nitrogen Oxide emissions shall not exceed 36.1 pounds per hour, which is equivalent to 167 parts per million by volume on a dry gas basis, corrected to 15% oxygen and at ISO conditions.	✓		Monthly calculation of NOx in lbs/hr.
II.1: No. 2 fuel oil shall not exceed 0.10% sulfur content by weight based on a 30-day rolling time period.	✓		A sample is taken during every truck delivery to ensure sulfur is less than 0.1%. The fuel analyses and supplier certifications are kept on site at NCRC Power Plant.
III.1: The permittee shall not operate EU-TURBINE and FG-BT0260-CO for more than 1,000 hours in aggregate between the gas turbines per 12-month rolling time period when firing No. 2 fuel oil.	✓		The run times for all units are recorded daily.
V.1: **NOx**: The permittee shall submit a complete test protocol to the AQD for approval at least 60 days prior to the anticipated test date.	✓		Required testing has not been performed during the life of the current ROP. The required testing was completed on 2/16/2018.
V.2: **NOx**: The permittee shall verify the NOx emission rate from the EU-TURBINE, by testing, once within the five-year term of the permit.	✓		
V.3: **NOx**: The permittee shall notify the District Supervisor and the Technical Programs Unit no less than seven days prior to the anticipated test date.	✓		
V.4: **NOx**: 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 test.	✓		
VI.1: 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.	✓		A sample is taken during every truck delivery to ensure sulfur is less than 0.1%. The fuel analyses and supplier certifications are kept on site at NCRC Power Plant.
VI.2: 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 NCRC 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.	✓		A sample is taken during every truck delivery to ensure sulfur is less than 0.1%. The fuel analyses and supplier certifications are kept on site at NCRC Power Plant.
VI.3: The permittee shall keep monthly and previous 12-month NOx calculation records for EU-TURBINE. The permittee will show compliance with the SC I.1, NOx emission limit by maintaining records of total monthly fuel usage, operating hours, and by calculating the pounds per hour on a 12-month rolling time period using this data after the end of each calendar month. Emission calculations are based upon fuel usage and SC I.1, emission factors.	✓		Readings are taken daily and calculated after the end of each month.
VI.4: 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.	✓		DTE provided UM with a letter stating the natural gas sulfur content is less than 20.0 grains/100scf or less. Letter filed at EHS.
VII.1: Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A.	✓		No deviations during this reporing period.
VII.2: Semi-annual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30.	✓		The semi-annual was submitted by September 15 for the reporting period of January 1 through June 30.
VII.3: Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year.	✓		The annual certification is submitted by March 15 for the reporting period for the previous calendar year.
VIII: Exhaust gases shall be discharged, unobstructed, vertically upwards to the ambient air unless otherwise noted.	✓		The gases discharge vertically upward due to construction of the plant.

Permit Condition	Compliance Status		Method Used to Determine Compliance
	Continuous	Intermittent	
VIII.1: SV-COGEN shall be at a minimum height of 87 feet above the ground.	✓		The minimum height of stack is due to construction of plant.
VIII.2: SV-BYPASS shall be at a minimum height of 87 feet above the ground.	✓		The minimum height of stack is due to construction of plant.
IX.1: The permittee shall comply with all applicable provisions of 40 CFR Part 60, Subparts A and GG, as they apply to EU-TURBINE.	✓		All conditions of for EU-TURBINE are reviewed to ensure compliance with 40 CFR Part 60 subpart A and GG.
IX.2: The permittee shall comply with all applicable provisions of 40 CRF Part 63, Subparts A and YYYY, as they apply to EU-TURBINE.	✓		All conditions of EU-TURBINE are reviewed to ensure compliance with 40 CFR Part 63 subparts A and YYYY.
Emission Unit: EU-DUCTBURNER Duct Burner at NCRC Powerhouse			
I.1: **NOx**: Nitrogen oxide emissions shall not exceed 0.14 pounds per million BTUs of heat input per 30-day rolling time period.	✓		Monthly calculation of Nox in tons.
I.2: **NOx**: Nitrogen oxide emissions shall not exceed 1.63 tons per 30-day rolling time period.	✓		
VI.1: The permittee shall keep monthly and previous 12-month NOx calculation records for EU-DUCTBURNER. The permittee will show compliance with the SC I.2, NOx emission limits by maintaining records of total monthly fuel usage, operating hours, and by calculating the tons per month NOx emissions on a 12-month rolling time period using this data after the end of each calendar month. Emission calculations are based upon fuel usage and SC I.1 - I.2, NOx emission factors. The permittee tracks fuel use and operating hours on a daily basis.	✓		Fuel usage and operating hours are recorded daily.
VII.1: Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A.	✓		No deviations during this reporing period.
VII.2: Semi-annual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30.	✓		The semi-annual was submitted by September 15 for the reporting period of January 1 through June 30.
VII.3: Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year.	✓		The annual certification is submitted by March 15 for the reporting period for the previous calendar year.
VIII: Exhaust gases shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted.	✓		The gases discharge vertically upward due to construction of the plant.
VIII.1: SV-COGEN shall be at a minimum height of 87 feet above the ground.	✓		The minimum height of stack is due to construction of plant.
IX.1: The permittee shall comply with all applicable provisions of 40 CFR Part 60, Subparts A and GG, as they apply to EU-DUCTBURNER.	✓		All conditions of for EU- DUCTBURNER t are reviewed to ensure compliance with 40 CFR Part 60 subpart A and GG.
IX.2: The permittee shall comply with all applicable provisions of 40 CFR Part 63, Subparts A and DDDDD, as they apply to EU-DUCTBURNER.	✓		UM performs annual maintenance to DUCTBURNER to meet subpart DDDDD.

Permit Condition	Compliance Status		Method Used to Determine Compliance
	Continuous	Intermittent	
Emission Unit: EU-B800-GEN1 Emergency Generator			
I.1: **NOx**: Nitrogen Oxides emissions shall not exceed 6.9 tons per year based on a 12-month rolling time period as determined at the end of each month.	✓		Monthly calculation of Nox in tons.
II.1: Only Diesel No. 2 fuel oil shall be used for emergency generator 1.	✓		Unit can only burn No. 2 fuel oil.
III.1: The permittee shall operate EU-B800-GEN1 in accordance with manufacturer's recommendations for safe and proper operation to minimize emissions during periods of startup, shutdown, and malfunction.	✓		The unit is maintained and PM is performed per the manufacturer's recommendations.
III.2: The permittee shall not operate EU-B800-GEN1 more than 250 hours per 12-month rolling time period as determined at the end of each calendar month.	✓		Operating hours are documented monthly.
VI.1: The permittee shall monitor the hours of operation of EU-B800-GEN1 on a monthly basis in a manner that is acceptable to the District Supervisor, Air Quality Division.	✓		Operating hours are documented monthly.
VI.2: The permittee shall keep, in a satisfactory manner, records of the date, duration, and description of malfunctions and corrective maintenance performed that may impact the air emissions of EU-B800-GEN1. Also, results from any air emissions testing of EU-B800-GEN1 must be maintained. All records shall be kept on file for a period of at least five years and made available to the Department upon request.	✓		All maintenance is documented and filed on site. Monthly operating times are documented. All records kept on file for 5 years.
VI.3: The permittee shall keep, in a satisfactory manner, hours of operation records for EU-B800-GEN1, as required by SC VI.1. All records shall be kept on file for a period of at least five years and made available to the Department upon request.	✓		Operating hours are documented monthly.
VI.4: The permittee shall calculate monthly and 12-month rolling time period NOx emissions from EU-B800-GEN1, and shall keep these calculations on file for a period of five years and make them available to the Department upon request. For the purpose of showing compliance with the NOx emission limit in SC I.1, the applicant shall multiply the NOx emission factor by the number of operating hours and the output capacity (3,251 brake horsepower) of the generator. If EU-B800-GEN1 is in service, it will be assumed to be operating at 100% load (in standby mode) for every hour of operation. Any alternate method of calculating NOx emissions based upon testing must be approved by the District Supervisor, Air Quality Division.	✓		Monthly calculation of Nox in tons and operating hours.
VII.1: Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A.	✓		No deviations during this reporing period.
VII.2: Semi-annual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30.	✓		The semi-annual was submitted by September 15 for the reporting period of January 1 through June 30.
VII.3: Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year.	✓		The annual certification is submitted by March 15 for the reporting period for the previous calendar year.
IX.1: The permittee shall comply with all provisions of 40 CFR Part 60, Subparts A and IIII, as they apply to EU-B800-GEN1.	✓		All conditions of EU-B800-GEN 1 are reviewed to ensure compliance with
IX.2: EU-B800-GEN1 complies with 40 CFR Part 63, Subparts A and ZZZZ by complying with 40 CFR Part 60, Subpart IIII.	✓		The only applicable requirement, initial notification, was submitted under ownership of Pfizer.

Permit Condition	Compliance Status		Method Used to Determine Compliance
	Continuous	Intermittent	
Flexible Group: FG-B0260-01-02 Boilers 1 and 2 at the Central Power Plant (EU-B0260-01, EU-B0260-02)			
I.1: **SO2**: The sulfur dioxide emission rate from the two boilers when firing No. 2 fuel oil shall not exceed 0.56 pounds per MMBTU heat input based upon a 24-hour period. This is equivalent to using No. 2 fuel oil with a 0.5% sulfur content and a heat value of 18,000 BTUs per pound.	✓		Fuel oil usage in Boilers No. 1 and 2 is monitored and reordered on a daily basis in a manner and with instrumentation acceptable to the AQD. The data is collected in the Delta V. The density, sulfur and BTU content of fuel is monitored. A representative sample of the fuel oil fired at the Central Power Plant is taken during each month that fuel oil is fired. The sample is submitted for an independent analysis of the density, sulfur content in percent by weight and BTU per gallon utilizing a method approved by AQD. The sample analyses are kept at the CPP.
I.2: **NOx**: The nitrogen oxides emission rate from the two gas/oil fired boilers when firing No. 2 fuel oil shall not exceed 0.30 pounds per million BTUs heat input based on a 24-hour average.	✓		Fuel oil usage in Boilers No. 1 and 2 is monitored and reordered on a daily basis in a manner and with instrumentation acceptable to the AQD. The data is collected in the Delta V. The density, sulfur and BTU content of fuel is monitored. A representative sample of the fuel oil fired at the Central Power Plant is taken during each month that fuel oil is fired. The sample is submitted for an independent analysis of the density, sulfur content in percent by weight and BTU per gallon utilizing a method approved by AQD. The sample analyses are kept at the CPP. Fuel usage is recorded daily.
I.3: **NOx**: The nitrogen oxides emission from the two gas/oil fired boilers when firing natural gas shall not exceed 0.20 pounds per million BTUs heat input, base on a 24-hour averaging period.	✓		Fuel oil usage in Boilers No. 1 and 2 is monitored and reordered on a daily basis in a manner and with instrumentation acceptable to the AQD. The data is collected in the Delta V. The density, sulfur and BTU content of fuel is monitored. A representative sample of the fuel oil fired at the Central Power Plant is taken during each month that fuel oil is fired. The sample is submitted for an independent analysis of the density, sulfur content in percent by weight and BTU per gallon utilizing a method approved by AQD. The sample analyses are kept at the CPP. Fuel usage is recorded daily.
III.1: The permittee shall only fire natural gas and/or No. 2 fuel oil in FG-B0260-01-02.	✓		Natural gas and No. 2 fuel oil are the only two fuels that can be fired at the CPP.
V.1: **NOx**: The permittee shall submit a complete test protocol to the AQD for approval at least 60 days prior to the anticipated test date.	✓		Required testing has not been performed during the life of the current ROP. Testing scheduled for March 2018.
V.2: **NOx**: The permittee shall verify the NOx emission rate from the FG-BT0260-01-02, by testing, once within the five-year term of the permit.	✓		
V.3: **NOx**: The permittee shall notify the District Supervisor and the Technical Programs Unit no less than seven days prior to the anticipated test date.	✓		
V.4: **NOx**: 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 test.	✓		
VI.1: The permittee shall monitor and record the fuel oil usage in FG-B0260-01-02 on a daily basis in a manner and with instrumentation acceptable to the AQD.	✓		The fuel oil usage is written on a daily log and the Delta V data acquisition handling system.
VI.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.	✓		The density, sulfur and BTU content of fuel are monitored. A representative sample of the fuel oil fired at the Central Power Plant is taken during each month that fuel oil is fired. The sample is submitted for an independent analysis of the density, sulfur content in percent by weight and BTU per gallon utilizing a method approved by AQD. A sample is taken during every truck delivery along with another sample when the fuel is dropped into each individual tank. Sample analyses filed at the CPP. The U of M Utilities Department holds the purchase records.
VI.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.	✓		The density, sulfur and BTU content of fuel are monitored. A representative sample of the fuel oil fired at the Central Power Plant is taken during each month that fuel oil is fired. The sample is submitted for an independent analysis of the density, sulfur content in percent by weight and BTU per gallon utilizing a method approved by AQD. A sample is taken during every truck delivery along with another sample when the fuel is dropped into each individual tank. Sample analyses filed at the CPP.
VII.1: Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A.	✓		No deviations during this reporing period.
VII.2: Semi-annual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30.	✓		The semi-annual was submitted by September 15 for the reporting period of January 1 through June 30.
VII.3: Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year.	✓		The annual certification is submitted by March 15 for the reporting period for the previous calendar year.
VIII: Exhaust gases shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted.	✓		The gases discharge vertically upward due to construction of the plant. The stack is visually checked hourly.

Permit Condition	Compliance Status		Method Used to Determine Compliance
	Continuous	Intermittent	
VIII.1.a: The maximum exhaust dimension shall be 168 inches.	✓		The maximum exhaust dimension is due to construction of the stack.
VIII.1.b: The minimum height for the north stack shall be 250 feet above a stack base elevation of 859 ft.	✓		The stack is at minimum height above elevation due to construction of the plant.
IX.1: The permittee shall comply with all provisions of 40 CFR Part 63, Subparts A and DDDDD, as they apply to FG-B0260-01-02.	✓		UM performs annual maintenance to EU-B0260-01-02 to meet subpart DDDDD.
Flexible Group: FG-B0260-03-04 Boilers 3 and 4 at the Central Power Plant (EU-B0260-03, EU-B0260-04)			
I.1: **SO2**: The sulfur dioxide emission rate from Boiler No.3 and Boiler No. 4, individually, when firing No. 2 fuel oil shall not exceed 0.56 lbs. per million BTUs heat input, based upon a 24-hour period. This is equivalent to using No. 2 fuel oil with 0.5% sulfur content and a heat value of 18,000 BTUs per lb.	✓		Fuel oil usage in Boilers No. 3 and 4 is monitored and recorded on a daily basis in a manner and with instrumentation acceptable to the AQD. The data is collected in the CEMS. Alarms are set in the CEMS at 0.50 lbs/MMBtu. The density, sulfur and BTU content of fuel is monitored. A representative sample of the fuel oil fired at the Central Power Plant is taken during each month that fuel oil is fired. The sample is submitted for an independent analysis of the density, sulfur content in percent by weight and BTU per gallon utilizing a method approved by AQD. The sample analyses are kept at the CPP.
I.2: **NOx**: The nitrogen oxides emission rate from Boiler No. 3 and Boiler No. 4 when firing natural gas and exhausting out south stack shall not exceed 0.55 pounds per million BTUs heat input, based on a 24-hour average.	✓		Nitrogen oxides shall be tested within the 5-year term of the RO Permit. Required ROP testing has not been performed during this reporting period. The data is collected in the CEMS. Alarms are set in the CEMS at 0.50 lbs/MMBtu.
III.1: The permittee shall not fire any fuel in FG-B0260-03-04 other than natural gas, while the boilers are exhausting through the south stack.	✓		Boilers only fire natural gas while exhausting to the south stack through operational procedures.
III.2: The permittee shall only fire natural gas and/or No. 2 fuel oil in FG-B0260-03-04 when exhausting through the north stack.	✓		Boilers only fire natural gas/ No. 2 fuel oil while exhausting to the north stack through operational procedures.
V.1: **NOx**: The permittee shall submit a complete test protocol to the AQD for approval at least 60 days prior to the anticipated test date.	✓		Required testing has not been performed during the life of the current ROP. Testing scheduled for March 2018. CEMS data submitted in place of test. Alternate data approved by the DEQ.
V.2: **NOx**: The permittee shall verify the NOx emission rate from FG-B0260-03-04, by testing, once within the 5-year term of the permit.	✓		
V.3: **NOx**: The permittee shall notify the District Supervisor and the Technical Programs Unit no less than seven days prior to the anticipated test date.	✓		
V.4: **NOx**: 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 test.	✓		
VI.1: The permittee shall monitor and record the fuel oil usage in FG-B0260-03-04 on a daily basis in a manner and with instrumentation acceptable to the AQD.	✓		The fuel oil usage is written on a daily log, collected in the CEMS, the Delta V data acquisition handling system.
VI.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.	✓		The density, sulfur and BTU content of fuel is monitored. A representative sample of the fuel oil fired at the Central Power Plant is taken during each month that fuel oil is fired. The sample is submitted for an independent analysis of the density, sulfur content in percent by weight and BTU per gallon utilizing a method approved by AQD. The sample analyses are kept at the CPP. The UM Utilities Department holds the purchase records.
VI.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.	✓		The density, sulfur and BTU content of fuel are monitored. A representative sample of the fuel oil fired at the Central Power Plant is taken during each month that fuel oil is fired. The sample is submitted for an independent analysis of the density, sulfur content in percent by weight and BTU per gallon utilizing a method approved by AQD. A sample is taken during every truck delivery along with another sample when the fuel is dropped into each individual tank. Sample analyses filed at the CPP.

Permit Condition	Compliance Status		Method Used to Determine Compliance
	Continuous	Intermittent	
VII.1: Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A.	✓		No deviations during this reporing period.
VII.2: Semi-annual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30.	✓		The semi-annual was submitted by September 15 for the reporting period of January 1 through June 30.
VII.3: Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year.	✓		The annual certification is submitted by March 15 for the reporting period for the previous calendar year.
VIII.1.a: The maximum exhaust dimension of the north stack (SV-B0260-01) shall be 168 inches.	✓		The maximum exhaust dimension is due to construction of the stack.
VIII.1.b: The minimum height of the north stack shall be 250 feet above a stack base elevation of 859 feet.	✓		The stack is at minimum height above elevatoin due to construction of stack.
VIII.2.a: The maximum exhaust dimension of the south stack (SV-B0260-02) shall be 120 inches.	✓		The maximum exhaust dimension is due to construction of the stack.
VIII.2.b: The minimum height of the south stack shall be 159 feet above a stack base elevation of 873 feet.	✓		That stack is at minimum height above elevation due to construction of stack.
IX.1: The permittee shall hold allowances for compliance deductions in the source's compliance account of the allowance transfer deadline in an amount not less than the total NOx emissions for the control period from the source pursuant to 40 CFR Part 97.154.	✓		The CEMS collects all required data for the Nox budget trading program. Nox credits are reviewed to ensure the correct amount for the control season.
IX.2: The permittee shall comply with the CAIR Ozone NOx Trading Program provisions of 40 CFR Part 97.301 through 40 CFR 97.388 as adopted and modified by R 336.1802a, R 336.1803 and R 336.1821 through R 336.1826 and as outlined in any complete CAIR Ozone NOx Permit issued by the AQD. The CAIR Ozone NOx Permit No. MI-NOO-880045-201X is hereby incorporated into this ROP as Appendix 9.	✓		The CEMS collects all required data for the Nox budget trading program.
IX.3: The permittee shall comply with all provisions of 40 CFR Part 63, Subparts A and DDDDD, as they apply to FG-B0260-03-04.	✓		UM performs annual maintenance to EU-B0260-03-04 to meet subpart DDDDD.
Flexible Group: FG-BT0260-CO Boilers 7 and 8 & Gas Turbines 9 and 10 at Central Power Plant (EU-0260-07, EU-0260-08, EU-0260-09, EU-0260-10)			
1: The permittee shall not operate FG-BT0260-CO, when firing natural gas, unless the water injection system is installed and operating at a water-to-fuel ratio of at least 0.5 (by weight), or alternate water-to-fuel ratio as determined by testing. Any alternate water-to-fuel ratio must be approved by the District Supervisor prior to implementation. Performance criteria used to obtain representative data and the means by which an exceedance or excursion will defined are described in SC VI.4, below.		✓	The gas turbines are equipped and maintained with instrumentation to continuously monitor and record the fuel consumption and the ratio of water to fuel being fired in each turbine. This system must be accurate to within plus or minus 5 percent. Flow rate data kept in Delta V and a strip chart recorder. The DCS alarms if the water-to-fuel ratio goes below limit or there is loss of NOx water. *See attached deviation reports* .
2. The permittee shall not operate FG-BT0260-CO, when firing No. 2 fuel oil, unless the turbines are at full load conditions and unless the water injection system is installed and operating at a water-to-fuel ratio of at least 0.3 (by weight), or alternate water-to-fuel ratio as determined by testing. Any alternate water-to-fuel ratio must be approved by the District Supervisor prior to implementation.	✓		The gas turbines are equipped and maintained with instrumentation to continuously monitor and record the fuel consumption and the ratio of water to fuel being fired in each turbine. This system must be accurate to within plus or minus 5 percent. Flow rate data kept in Delta V and a strip chart recorder. The DCS alarms if the water-to-fuel ratio goes below limit or there is loss of NOx water.
3. The permittee shall conduct the monitoring/recordkeeping in accordance with the requirements specified in 40 CFR 64.7 through 64.9.	✓		The gas turbines are equipped and maintained with instrumentation to continuously monitor and record the fuel consumption and the ratio of water to fuel being fired in each turbine. This system must be accurate to within plus or minus 5 percent.

Permit Condition	Compliance Status		Method Used to Determine Compliance
	Continuous	Intermittent	
I.1: **NOx**: The NOx gas 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.	✓		The density, sulfur and BTU content of fuel is monitored. A representative sample of the fuel oil fired at the Central Power Plant is taken during each month that fuel oil is fired. The sample is submitted for an independent analysis of the density, sulfur content in percent by weight and BTU per gallon utilizing a method approved by AQD. The sample analyses are kept at the CPP. Nitrogen oxides testing will be performed once within the 5-year term of the ROP. Testing scheduled for March 2018.
I.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.	✓		
I.3: **NOx**: The NOx emission rate from the heat recovery steam generators (HRSG) shall not exceed 0.10 lbs/MMBTUs heat input, based on a 24-hr average.	✓		
I.4: **NOx**: The NOx emissions from the gas turbines and the 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.	✓		
I.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.	✓		CO testing will be performed once within the 5-year term of the ROP. Testing scheduled for March 2018.
I.6: **SO2**: The SO2 emission rate from the gas turbines, when firing No. 2 fuel oil, shall not exceed 0.155 lbs/MMBtus heat input, based on a 24 hour period. This is equivalent to using oil with a 0.15% sulfur content and heat value of 138,000 Btus/gal.	✓		The density, sulfur and BTU content of fuel is monitored. A representative sample of the fuel oil fired at the Central Power Plant is taken during each month that fuel oil is fired. The sample is submitted for an independent analysis of the density, sulfur content in percent by weight and BTU per gallon utilizing a method approved by AQD. The sample analyses are kept at the CPP.
III.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.	✓		The run times for all units are recorded daily.
III.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 fuel consumption rate shall be monitored by a differential pressure orifice meter and the water injection rate shall be monitored using a turbine meter. 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.		✓	The gas turbines are equipped and maintained with instrumentation to continuously monitor and record the fuel consumption and the ratio of water to fuel being fired in each turbine. This system must be accurate to within plus or minus 5 percent. Flow rate data kept in Delta V. The DCS alarms if the water-to-fuel ratio goes below limit or there is loss of NOx water. *See attached deviation reports.*
III.3: Upon detecting an excursion or exceedance, the permittee shall restore operation of FG-BT0260-CO to its normal or usual manner or operation as expeditiously as practicable in accordance with good engineering practices for minimizing air emission.	✓		No excursions or exceedences occurred during this reporting period.
III.4: The permittee shall collect data for all required monitoring for all required intervals that FG-BT0260-CO is operated, except for defined malfunction, repairs, and QA/QC activities.	✓		Flow rate data kept in Delta V. The DCS alarms if there is loss of NOx water.
V.I: **NOx**: The permittee shall submit a complete test protocol to the AQD for approval at least 60 days prior to the anticipated test date.	✓		Nitrogen oxides testing will be performed once within the 5-year term of the ROP. The required test was not performed during this reporting period. Scheduled for March 2018.
V.2: **NOx**: The permittee shall verify the NOx emission rate from the FG-BT260-CO, by testing, once within the five-year term of the permit.	✓		
V.3: **NOx**: The permittee shall notify the District Supervisor and the Technical Programs Unit no less than seven days prior to the anticipated test date.	✓		
V.4: **NOx**: 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 test.	✓		

Permit Condition	Compliance Status		Method Used to Determine Compliance
	Continuous	Intermittent	
V.5: **CO**: The permittee shall submit a complete test protocol to the AQD for approval at least 60 days prior to the anticipated test date.	✓		CO testing will be performed once within the 5-year term of the ROP. The required test was not performed during this reporting period. Scheduled for March 2018.
V.6: **CO**: The permittee shall verify the CO emission rate from the FG-BT0260-CO, by testing, once within the five-year term of the permit.	✓		
V.7: **CO**: The permittee shall notify the District Supervisor and the Technical Programs Unit no less than seven days prior to the anticipated test date.	✓		
V.8: **CO**: 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 test.	✓		
VI.1: 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.	✓		DTE provided UM with a letter stating the natural gas sulfur content is less than 20.0 grains/100scf or less. Letter filed at EHS.
VI.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.	✓		The density, sulfur and BTU content of fuel is monitored. A representative sample of the fuel oil fired at the Central Power Plant is taken during each month that fuel oil is fired. The sample is submitted for an independent analysis of the density, sulfur content in percent by weight and BTU per gallon utilizing a method approved by AQD. The sample analyses are kept at the CPP. The UM Utilities Department holds the purchase records.
VI.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.	✓		The density, sulfur and BTU content of fuel is monitored. A representative sample of the fuel oil fired at the Central Power Plant is taken during each month that fuel oil is fired. The sample is submitted for an independent analysis of the density, sulfur content in percent by weight and BTU per gallon utilizing a method approved by AQD. The sample analyses are kept at the CPP. Fuel analyses located at the CPP.
VI.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. The fuel consumption rate shall be monitored by a differential pressure orifice meter and the water injection rate shall be monitored using a turbine meter. 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.	✓		The gas turbines are equipped and maintained with instrumentation to continuously monitor and record the fuel consumption and the ratio of water to fuel being fired in each turbine. This system must be accurate to within plus or minus 5 percent.

Permit Condition	Compliance Status		Method Used to Determine Compliance
	Continuous	Intermittent	
VI.5: The water-to-fuel ratio shall be recorded by the CPP data acquisition system with, at a minimum, four data points equally spaced over each hour. Compliance with the water-to-fuel ratio values shall be determined by comparing the average of all data points for each operating hour with the minimum values described in. An excursion from the indicator range will be defined as any hour in which the average water-to-fuel ratio is less than the minimum values of 0.5 when firing natural gas and 0.3 when firing fuel oil. Any alternate water-to-fuel ratio must be approved by the District Supervisor prior to implementation.	✓		The gas turbines are equipped and maintained with instrumentation to continuously monitor and record the fuel consumption and the ratio of water to fuel being fired in each turbine. This system must be accurate to within plus or minus 5 percent.
VI.6: The only monitoring necessary to demonstrate ongoing compliance with the NOx emission limits for FG-BT0260-CO be the ratio of water injected (pounds) to fuel fired (pounds). Data is obtained through the use of fuel flow and water flow meters installed in the piping used to deliver both to the turbine. Natural gas flow rate to the turbine is monitored using an orifice meter and water and fuel oil flow rates are monitored using turbine flowmeters. These meters have been obtaining representative data since the original Gas Turbine No. 10 was installed in 1989 and were installed in locations consistent with manufacturer's recommendations, and were calibrated and certified by the manufacturer. These flow meters will continue to be maintained and calibrated consistent with each manufacturer's specifications.	✓		All meters are calibrated annually during the overhaul as per the manufacturer specifications.
VI.7: The permittee shall notify AQD of any excursions or exceedances using the procedures specified by R 336.1213(c)(3) and R 336.1912.	✓		No excursions or exceedences occurred during this reporting period.
VI.8: Pursuant to 40 CFR 64, the permittee shall conduct all monitoring specified in SC VI.1 - VI.5 and shall satisfy all requirements specified by 40 CFR 64.7 through 40 CFR 64.9.	✓		The gas turbines are equipped and maintained with instrumentation to continuously monitor and record the fuel consumption and the ratio of water to fuel being fired in each turbine. This system must be accurate to within plus or minus 5 percent.
VI.9: The required monitoring shall be installed and its operational status verified using the procedures of SC VI.4 upon issuance of this permit.	✓		The meters are calibrated annually during turbine overhaul.
VI.10: Except for malfunctions, repairs, and quality assurance/quality control activities, the monitoring system shall collect data for all required intervals.	✓		The gas turbines are equipped and maintained with instrumentation to continuously monitor and record the fuel consumption and the ratio of water to fuel being fired in each turbine. This system must be accurate to within plus or minus 5 percent.
VII.1: Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A.	✓		No prompt deviations during this reporing period.
VII.2: Semi-annual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30.	✓		The semi-annual was submitted by September 15 for the reporting period of January 1 through June 30.
VII.3: Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year.	✓		The annual certification is submitted by March 15 for the reporting period for the previous calendar year.
VIII.4: **NOx**: Semi-annual reporting of excess emissions required under 40 CFR 60.7 (c) are defined as any one-hour period during which the average water-to-fuel ratio drops below the limits specified in FG-BT0260-CO, SC I.1-1.4, pursuant to and in a manner specified in 40 CFR 60.334(c)(1) and 40 CFR 60.7(c).	✓		No excess emissions occurred during this reporting period.
VIII.5: **SO2**: Semi-annual 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)92), and in a manner specified in 40 CFR 60.7(c).	✓		No excess emissions occurred during this reporting period.
VIII.6: 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.	✓		No notifications during this reporting period.

Permit Condition	Compliance Status		Method Used to Determine Compliance
	Continuous	Intermittent	
VIII.7: 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.	✓		No notifications during this reporting period.
VIII.8: In addition to the reporting requirements specified by General Condition Nos. 23-29 of this ROP, the permittee shall submit semi-annual compliance assurance monitoring reports that include, at a minimum: a. Summary information regarding the number, duration, and cause of exceedances and excursions and the corrective actions taken and b. Summary information regarding monitor downtime.	✓		No notifications during this reporting period.
VIII: Exhaust gases shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted.	✓		The gases discharge vertically upward due to construction of the plant. The stack is visually checked hourly.
VIII.1.a: The maximum exhaust dimension shall be 120 inches.	✓		The stack maximum exhaust dimension is due to construction of the stack.
VIII.1.b: The minimum height of the south stack shall be 159 feet above a stack base elevation of 873 feet.	✓		The minimum height of stack is due to construction of plant.
IX.1: The permittee shall notify the appropriate District Office of the AQD for the need to modify the monitoring plan if the approved monitoring is found to be inadequate and shall submit a proposed modification to the plan if appropriate.	✓		No modifications to the monitoring plan.
IX.2: The permittee shall , at all times, maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.	✓		The meters are calibrated annually during turbine overhaul.
IX.3: In the event that an exceedance or an excursion occurs, FG-BT0260-CO shall be shut down or restored to the specified water-to-fuel ratio as quickly as possible.	✓		No exceedances occurred during this reporting period.
IX.4: The permittee shall maintain the water-to-fuel monitoring system consistent with manufacturer's recommendations including, but not limited to, maintaining necessary parts for routine repairs.	✓		The monitoring system is maintained as per the manufacturer specifications. The meters are calibrated annual during turbine maintenance overhaul.
IX.5: The permittee shall promptly notify the AQD of the need to modify the monitoring plan if it is found to be inadequate and shall submit a proposed modification to the ROP if necessary.	✓		No modifications to the monitoring plan.
IX.6: The permittee shall comply with all applicable provisions of 40 CFR Part 64, as they apply to FG-BT0260-CO.	✓		The compliance assurance plan was approved by the MDEQ as per 40 CFR Part 64.
IX.7: The permittee shall comply with all applicable provisions of 40 CFR Part 60, Subparts A and GG, as they apply to FG-BT0260-CO	✓		The compliance assurance plan was approved by the MDEQ as per 40 CFR Part 64.
IX.8: The permittee shall comply with all applicable provisions of 40 CFR Part 63, Subparts A and YYYY, as they apply to FG-BT0260-CO.	✓		All conditions of FG-BT0260-CO are reviewed to ensure compliance with 40 CFR Part 63 subparts A and YYYY.

Permit Condition	Compliance Status		Method Used to Determine Compliance
	Continuous	Intermittent	
Flexible Group: FG-6ETO Two 3M 5XL EtO sterilizers and four 3M 8XL EtO sterilizers (EU-ETO-1E, EU-ETO-2E, EU-ETO-3E, EU-ETO-4E, EU-ETO-5E, EU-ETO-6E)			
1. Each sterilizer is equipped with a 3M Model 50 EtO "Abator" catalytic oxidizer control.	✓		All units are equipped with catalytic oxidizers.
I.1: **EtO**: EtO emissions shall not exceed 0.00194 pph for all sterilizers exhausting at one time.	✓		The amount of EtO used in each sterilizer per cycle/load. The number of cycles/loads processed in each sterilizer per calendar day and per calendar month. EtO mass emission calculations determining the monthly emission rate, in pounds per calendar month, from each sterilizer, and for both sterilizers combined. EtO mass emission calculations determining the annual emission rate in pounds per 12-month rolling time period as determined at the end of each calendar month, from each sterilizer, and for both sterilizers combined.
I.2: **EtO**: EtO emissions shall not exceed 1.42 lbs per year based on a 12-month rolling time period as determined at the end of each calendar month (for all sterilizers combined).	✓		
II.1: **EtO**: No more than 170 grams of EtO per cycle/load shall be used in EU-ETO-E3, EU-ETO-E4, EU-ETO-E5, EU-ETO-E6 sterilizers within FG-6ETO.	✓		
II.2: **EtO**: Usage of no more than 100 grams of EtO per cycle/load shall be used in EU-ETO-E1, and EU-ETO-E2 sterilizers within FG-ETO.	✓		
III.1: The permittee shall not operate all sterilizers associated with FG-6ETO unless the catalytic oxidation systems are maintained, and operated in a satisfactory manner. Satisfactory operation of the catalytic oxidation system includes an EtO destruction efficiency of 99.9 percent by weight.	✓		Each sterilizer was installed with a catalytic oxidizer. Sterilizers do not operate unless the catalytice oxidizer is operating properly.
III.2: The permittee shall not operate any sterilizer associated with FG-6ETO unless a malfunction abatement plan (MAP) as described in Rule 911 (2), has been submitted within 60 days of permit issuance, and is implemented and maintained. If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days, if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended 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.	✓		A malfunction abatement plan was submitted within 60 days of issuance of permit and approved by the DEQ.
IV.1: The permittee shall not operate any sterilizer associated with FG-6ETO unless each respective closed loop recirculating-fluid vacuum pump, air ejector system, or other method of drawing a vacuum and evacuating each sterilizer chamber and which prevents the discharge of any EtO to a wastewater stream is installed, maintained, and operated in a satisfactory manner or each sterilizer associated with FG-6ETO.	✓		Each sterilizer is equipped with a closed loop recirculating fluid vacuum pump.
VI.1: The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.	✓		All calculations are completed by the 15th day of the following calendar month.
VI.2: The permittee shall keep a separate monthly record of the following information: a. The amount of EtO used in each sterilizer per cycle/load. b. The number of cycles/loads processed in each sterilizer per calendar day and per calendar month. c. EtO mass emission calculations determining the monthly emission rate, in pounds per calendar month, from each sterilizer, and for both sterilizers combined. d. EtO mass emission calculations determining the annual emission rate in pounds per 12-month rolling time period as determined at the end of each calendar month, from each sterilizer, and for both sterilizers combined. The permittee shall keep the records in a format acceptable to the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request.	✓		All required calculations in a format acceptable to the AQD District Supervisor by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition
VI.3: The permittee shall monitor a parameter/parameters, based on either the manufacturer's specifications or a performance test, which assures at least 99.9 percent reduction of EtO emissions. A copy of the manufacturer's specifications for the control device shall be maintained on file.	✓		The catalytic oxidizers are reviewed daily and a copy of the manufactutures specs and operating manuals are filed on site with units.

Permit Condition	Compliance Status		Method Used to Determine Compliance
	Continuous	Intermittent	
VII.1: Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A.	✓		No deviations during this reporing period.
VII.2: Semi-annual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30.	✓		The semi-annual was submitted by September 15 for the reporting period of January 1 through June 30.
VII.3: Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year.	✓		The annual certification is submitted by March 15 for the reporting period for the previous calendar year.
VIII: Exhaust gases shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted.	✓		Exhaust gases discharge vertically due to the contruction of the stack.
VIII.1.a: Maximum exhaust dimensions for stack SV-EF-310 shall be 20 inches.	✓		The maximum exhaust dimensions and minimum heights of the stacks are due to construction of the stacks.
VIII.1.b: The minimum height of SV-EF-310 shall be 77.25 feet above the ground.	✓		
VIII.2.a: Maximum exhaust dimensions for stack SV-EF-311 shall be 20 inches.	✓		
VIII.2.b: The minimum height of SV-EF-311 shall be 77.25 feet above ground.	✓		
VIII.3.a: Maximum exhaust dimensions for stack SV-EF-312 shall be 28 inches.	✓		
VIII.3.b: The minimum height of SV-EF-312 shall be 85.25 feet above ground.	✓		
VIII.4.a: Maximum exhaust dimensions for stack SV-EF-313 shall be 28 inches.	✓		
VIII.4.b: The minimum height of SV-EF-313 shall be 85.25 feet above ground.	✓		
IX.1: The permittee shall install the new EtO sterilizers using a phased approach (i.e. removal of the existing sterilizers will be coordinated with the installation of the new EtO sterilizers). Following is a phased sequence for replace of the existing sterilizers with the new sterilizers and abators: **Construction Phasing:** - Install new abators; -Replace one existing sterilizer with two new 3M 5XL sterilizers and connect to the new abators; -Replace another existing sterilizer with one new 3M 8XL sterilizer and connect to the new abator; -Replace last existing sterilizer with one new 3M 8 XL sterilizer and connect to the new abator; and -Lastly install the two remaining 3M 8XL sterilizer and connect to the new abators.	✓		All units were installed through phasing. Construction of all units are complete.
IX.2: The permittee shall provide written notification to the District Supervisor upon completion of the installation of the new EtO sterilizers in FG-6ETO and the removal of the existing sterilizers. Such notification shall be within 30 days of the completion of the installation of the new sterilizers, and shall request that the permit for the existing sterilizers be voided.	✓		Letter submitted to DEQ on January 7, 2014.

Permit Condition	Compliance Status		Method Used to Determine Compliance
	Continuous	Intermittent	
Flexible Group: FG-B5102-01-02 Two natural gas fired boilers located at the Brehm Tower (EU-B5102-01, EU-B5102-02)			
I.1: **NOx**: NOx emissions shall not exceed 0.89 pounds per hour when firing natural gas.	✓		Fuel usage and operating hours are recorded monthly.
I.2: **NOx**: NOx emissions shall not exceed 4.4 pounds per hour when firing No. 2 fuel oil.	✓		
I.3: **NOx**: NOx emissions shall not exceed 9.6 tons per year based on a 12-month rolling time period as determined at the end of each calendar month.	✓		
I.4: **CO**: CO emissions shall not exceed 0.99 pounds per hour when firing Natural gas.	✓		
I.5: **CO**: CO emissions shall not exceed 0.94 pounds per hour when firing No. 2 fuel oil.	✓		
I.6: **CO**: CO emissions shall not exceed 7.8 tons per year based on a 12-month rolling time period as determined at the end of each calendar month.	✓		
II.1: **Sulfur content of Fuel Oil**: The sulfur content of fuel oil shall be 0.05% by weight.	✓		The supplier certification of fuel oil is received to confirm sulfur content. A copy is filed on site with unit and at EHS.
II.2: **Natural gas**: Natural gas usage shall not exceed 350,000,000 cubic feet per 12-month rolling-time period. This limit is based upon a higher heating value of 140,120 Btu/Gal of fuel oil and the default emission factors listed in the Emission Limit Table.	✓		Fuel usage and operating hours are recorded monthly.
II.3: **Fuel Oil**: Fuel oil usage shall not exceed 240,000 gallons per 12-month rolling time period. This limit is based upon a higher heating value of 140,120 Btu/gal. of fuel oil and the default emission factors listed in the Emission Limit Table.	✓		Fuel usage and operating hours are recorded monthly.
III.1: The permittee shall only fire natural gas and/or No. 2 fuel oil in FG-B5102-01-02.	✓		Natural gas and fuel oil are the only two fuels that are permitted in FG-B5102-01-02.
VI.1: The permittee shall continuously monitor in a satisfactory manner, the natural gas and fuel oil usage rates for each boiler in FG-B5102-01-02 using respective fuel flow meters on a monthly basis.	✓		Fuel flow meters installed and fuel usage is recorded monthly.
VI.2: The permittee shall monitor emissions, operating information and keep records for each boiler within FG-B5102-01-02 in accordance with the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60, Subparts A and Dc.	✓		FG-B5102-01-02 permitted in accordance to 40 CFR Part 60 Subparts A and Dc.
VI.3: The permittee shall keep records of the sulfur content, in percent by weight, of the fuel oil burned in FG-B5102-01-02. The permittee shall keep a separate record of the sulfur content for each shipment of fuel oil received.	✓		Fuel oil supplier certifications kept on site with unit.
VI.4: The permittee shall keep in a satisfactory manner, monthly fuel use records for each boiler within FG-B5102-01-02 as required by SC VI.1.	✓		All monthly fuel usage records are kept on file at EHS.

Permit Condition	Compliance Status		Method Used to Determine Compliance
	Continuous	Intermittent	
VII.1: Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A.	✓		No deviations during this reporing period.
VII.2: Semi-annual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30.	✓		The semi-annual was submitted by September 15 for the reporting period of January 1 through June 30.
VII.3: Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year.	✓		The annual certification is submitted by March 15 for the reporting period for the previous calendar year.
VIII: Exhaust gases shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted.	✓		Exhaust gases discharge vertically due to the contruction of the stack.
VIII.1.a: Maximum exhaust dimensions for stack SV-BOILER-01 shall be 26 inches.	✓		Maximum exhaust dimension is due to the construction of the stack.
VIII.1.b: The minimum height above ground for stack SV-BOILER-01 shall be 180.67 feet.	✓		The minimum height of stack is due to construction of stack.
VIII.2.a: Maximum exhaust dimensions for stack SV-BOILER-02 shall be 26 inches.	✓		The maximum exhaust dimensions of the stack are due to construction of the stack.
VIII.2.b: The minimum height above ground for stack SV-BOILER-02 shall be 180.67 feet.	✓		The minimum height of stack is due to construction of stack.
IX.1: The permittee shall comply with all applicable provisions of 40 CFR Part 60, Subparts A and Dc, as they apply to FG-B5102-01-02.	✓		FG-B5102-01-02 permitted in accordance to 40 CFR Part 60 Subparts A and Dc.
IX.2: The permittee shall comply with all provisions of 40 CFR Part 63, Subparts A and DDDDD, as they apply to FG-B5102-01-02.	✓		UM performs annual maintenance to FG-B5102-01-02 to meet subpart DDDDD.
Flexible Group: FG-B5102-03-04 Two Natural Gas-Fired Boilers at Brehm Tower (EU-B5102-03, EU-B5102-04)			
I.1: **NOx**: NOx emissions shall not exceed 0.98 pounds per hour.	✓		Fuel usage and operating hours are recorded monthly.
I.2: **NOx**: NOx emissions shall not exceed 7.5 tons per year based on a 12-month rolling time period as determined at the end of each calendar month.	✓		
I.3: **CO**: CO emissions shall not exceed 0.82 pounds per hour.	✓		
I.4: **CO**: CO emissions shall not exceed 6.3 tons per year based on a 12-month rolling time period as determined at the end of each calendar month.	✓		

Permit Condition	Compliance Status		Method Used to Determine Compliance
	Continuous	Intermittent	
II.1: **Natural gas**: Natural gas usage shall not exceed 150,000,000 cubic feet per 12-month rolling time period. This is based upon a natural gas higher heating value of 1,020 Btu per cubic feet, and the default emission factors listed in the Emission Limit Table.	✓		Natural gas usage is recorded monthly.
III.1: The permittee shall only fire natural gas in the FG-B5102-03-04.	✓		Boiler 3 and 4 can only burn natural gas.
VI.1: The permittee shall monitor, in a satisfactory manner, the natural gas usage rates for each boiler within FG-B5102-03-04 to record and maintain records of the amount of each fuel combusted during each calendar month.	✓		Fuel usage is recorded monthly.
VI.2: The permittee shall monitor emissions operating information and record keeping for each boiler within FG-B5102-03-04 in accordance with the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60, Subparts A and Dc.	✓		Fuel usage is recorded monthly.
VI.3: The permittee shall keep in a satisfactory manner, monthly fuel use records for each boiler within FG-B5102-03-04 as required by SC VI.1.	✓		Fuel usage is recorded and calculated monthly.
VII.1: Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A.	✓		No deviations during this reporing period.
VII.2: Semi-annual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30.	✓		The semi-annual was submitted by September 15 for the reporting period of January 1 through June 30.
VII.3: Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year.	✓		The annual certification is submitted by March 15 for the reporting period for the previous calendar year.
VIII: Exhaust gases shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted.	✓		Exhaust gases discharge vertically due to the contruction of the stack.
VIII.1.a: Maximum exhaust dimensions for stack SV-BOILER-03 shall be 20 inches.	✓		Maximum exhaust dimension is due to the construction of the stack.
VIII.1.b: The minimum height above ground for stack SV-BOILER-03 shall be 180 feet.	✓		Minimum height above ground is due to the construction of the stack.
VIII.2.a: Maximum exhaust dimensions for stack SV-BOILER-04 shall be 20 inches.	✓		Maximum exhaust dimension is due to the construction of the stack.
VIII.2.b: The minimum height above ground for stack SV-BOILER-04 shall be 180 feet.	✓		Minimum height above ground is due to the construction of the stack.
IX.1: The permittee shall comply with all applicable provisions of 40 CFR Part 60, Subparts A and Dc, as they apply to FG-B5102-03-04.	✓		FG-B5102-03-04 permitted in accordance to 40 CFR Part 60 Subparts A and Dc.
IX.2: The permittee shall comply with all provisions of 40 CFR Part 63, Subparts A and DDDDD, as they apply to FG-B5102-03-04.	✓		UM performs annual maintenance to FG-B5102-03-04 to meet subpart DDDDD.

Permit Condition	Compliance Status		Method Used to Determine Compliance
	Continuous	Intermittent	
Flexible Group: FG-3GENS-5102 Three Diesel Emergency Generators at Brehm Tower			
I.1: **NMHC + NOx**: NMHC and NOx emission limits shall not exceed 6.4 g/kw-hr^2.	✓		Continuously monitor the fuel oil usage for each emergency generator using respective flow meters on a monthly basis. The data is collected monthly.
I.2: **CO**: CO emission limits shall not exceed 0.80 g/kw-hr^2.	✓		
I.3: **PM**: PM emission limits shall not exceed 0.1 g/kw-hr^2.	✓		
II.1: **Diesel fuel**: The permittee shall meet the specifications and requirements of 40 CFR 80.510 (b) for all of the current diesel fuels.	✓		Sulfur content certifications is supplied by the vendor prior to delivery and also from each shipment. Copies of the fuel oil certifications are kep with Hospital Maintenance.
II.2: **Sulfur content of diesel fuel**: The permittee shall only burn diesel fuel with a maximum sulfur content of 15 ppm.	✓		Sulfur content certifications is supplied by the vendor prior to delivery and also from each shipment. Copies of the fuel oil certifications are kep with Hospital Maintenance.
III.1: The permittee shall operate FG-3GENS-5102 in accordance with its manufacturer's written instructions of by operating procedures developed by the permittee that are approved by the manufacturer.	✓		Hospital Maintenance operates the emergency generators per the manufacturer's recommendations.
III.2: The permittee shall not change or revise the operating instructions, procedures or settings for FG-3GENS-5102 unless permitted by the manufacturer in writing.	✓		No changes in operating instructions. Hospital Maintenance operates the emergency generators per the manufacturer's recommendations.
III.3: The permittee shall not operate any single emission unit of FG-3GENS-5102 for more than 100 hours per engine per 12-month rolling time period as determined at the end of each calendar month during maintenance checks and readiness testing and not more than a total of 500 hours of operation per engine per rolling 12-month rolling time period as determined at the end of each calendar month, total.	✓		The hours of operation are documented monthly and input in the rolling spreadsheet.
IV.1: The permittee shall equip FG-3GENS-5102 with a non-resettable hour meter to track the number of operating hours.	✓		A non-resettable meters are installed on each emergency generator.
IV.2: If any emission unit of FG-3GENS-5102 contains a diesel particulate filter to comply with SC I.3, the filter must be installed with a backpressure monitor that notifies the owner/operator when the high backpressure limit of the engine is approached.	✓		NA
VI.1: The permittee shall monitor the hours of operation of FG-3GENS-5102 on a monthly basis, in a manner that is acceptable to the District Supervisor, Air Quality Division.	✓		Hours of operation are documented during each use/ month. The hours are given to EHS monthly to document in the rolling spreadsheet.
VI.2: The permittee shall monitor in a satisfactory manner, the fuel oil usage for each diesel generator within FG-3GENS-5102 on a monthly basis. The total diesel oil usage for all equipment combined using delivery records and monthly tank level(s) and measure engine fuel use as the difference between total diesel fuel usage and that used by Boiler 1 and 2.	✓		The fuel oil usage is documented monthly from each individual fuel oil meters located on each engine. The fuel oil usage is given to EHS monthly to document in the rolling spreadsheet.
VI.3: The permittee shall keep in a satisfactory manner, the following records on file and make them available to the Department upon request: a. Engine certification according to 40 CFR Part 89 or Part 94, as applicable, for the same engine model year and maximum engine power. The engine must be installed and configured according to the manufacturer's specifications. b. Records of performance test results for each pollutant for a test conducted on FG-3GENS-5102. The test must have been conducted correctly and used the same methods specified in 40 CFR Part 60, Subpart IIII. c. Records of engine manufacturer data indicating compliance with these standards. d. Records of control device vendor data indicating compliance with these standards, as applicable.	✓		Records of compliance with the emission standards are kept at EHS and Brehm.

Permit Condition	Compliance Status		Method Used to Determine Compliance
	Continuous	Intermittent	
VI.4: The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period fuel use records for FG-3GENS-5102. The records must indicate the total amount of fuel used in FG-3GENS-5102.	✓		The fuel oil usage is documented monthly from each individual fuel oil meters located on each engine. The fuel oil usage is given to EHS monthly to document in the 12-month rolling spreadsheet.
VI.5: The permittee shall keep records of the sulfur content, in percent by weight, of the fuel oil. The permittee shall keep a separate record of the sulfur content for each shipment of fuel oil received.	✓		Sulfur content certifications is supplied by the vendor prior to delivery and also from each shipment. Copies of the fuel oil certifications are kep with Hospital Maintenance.
VII.1: Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A.	✓		No deviations during this reporing period.
VII.2: Semi-annual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30.	✓		The semi-annual was submitted by September 15 for the reporting period of January 1 through June 30.
VII.3: Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year.	✓		The annual certification is submitted by March 15 for the reporting period for the previous calendar year.
VIII: Exhaust gases shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted.	✓		The gases discharge vertically upward due to construction of unit and stacks. The maximum exhaust dimension of the stacks are due to construction of the stacks. The minimum height of above ground is due to the construction of the building and units.
VIII.1.a: Maximum exhaust dimensions for SV-DGEN-01 shall be 10 inches.	✓		
VIII.1.b: The minimum height above ground for stack SV-DGEN-01 shall be 193 feet.	✓		
VIII.2.a: Maximum exhaust dimensions for SV-DGEN-02 shall be 10 inches.	✓		
VIII.2.b: The minimum height above ground for stack SV-DGEN-02 shall be 193 feet.	✓		
VIII.3.a: Maximum exhaust dimensions for SV-DGEN-03 shall be 10 inches.	✓		
VIII.3.b: The minimum height above ground for stack SV-DGEN-03 shall be 193 feet.	✓		
IX.1: The permittee shall comply with all provisions of 40 CFR Part 60, Subparts A and IIII, as they apply to FG-3GENS-5102.	✓		FG-3GENS-5102 permitted in accordance to 40 CFR Part 60 Subparts IIII.
IX.2: FG-3GENS-5102 complies with 40 CFR Part 63, Subpart ZZZZ by complying with 40 CFR Part 60, Subpart IIII.	✓		FG-3GENS-5102 permitted to be in compliance with Subpart ZZZZ.

Permit Condition	Compliance Status		Method Used to Determine Compliance
	Continuous	Intermittent	
Flexible Group: FG-4GENS-5173 Four diesel fuel-fired generators at C.S. Mott Children's and Women's Hospitals.			
I.1: **NMHC + NOx**: NMHC and NOx emissions shall not exceed 6.4 grams per kilo-watt hour.	✓		Continuously monitor the fuel oil usage for each emergency generator using respective flow meters on a monthly basis. The data is collected monthly.
I.2: **CO**: CO emissions shall not exceed 3.5 grams per kilowatt-hour.	✓		
I.3: **PM**: PM emissions shall not exceed 0.20 grams per kilowatt-hour.	✓		
I.4: **NOx**: NOx emissions shall not exceed 35.9 tons per year based on a 12-month rolling time period as determined at the end of each calendar month.	✓		
II.1: **Diesel Fuel**: The permittee shall meet the specifications and requirements of 40 CFR 80.510 (b) for all of the current diesel fuels.	✓		Sulfur content certifications is supplied by the vendor prior to delivery and also from each shipment. Copies of the fuel oil certifications are kep with Hospital Maintenance.
II.2: **Diesel Fuel**: The permittee shall only burn diesel fuel with a maximum sulfur content of 15 ppm.	✓		Sulfur content certifications is supplied by the vendor prior to delivery and also from each shipment. Copies of the fuel oil certifications are kep with Hospital Maintenance.
III.1: The permittee shall operate each engine in FG-4GENS-5173 in accordance with its manufacturer's written instructions or by operating procedures developed by the permittee that are approved by the manufacturer.	✓		Hospital Maintenance operates the emergency generators per the manufacturer's recommendations.
III.2: The permittee shall not change or revise the operating instructions, procedures or settings for any engine in FG-4GENS-5173 unless permitted by the manufacturer in writing.	✓		No changes in operating instructions. Hospital Maintenance operates the emergency generators per the manufacturer's recommendations.
III.3: The permittee shall not operate any engine in FG-4GENS-5173 for maintenance checks and readiness testing for more than 100 hours per 12-month rolling time period as determined at the end of each calendar month, except as allowed by 40 CFR 60.4211(e).	✓		The hours of operation are documented monthly and input in the rolling spreadsheet.
III.4: The permittee shall not operate any engine in FG-4GENS-5173 for any purpose for more than 500 hours per 12-month rolling time period as determined at the end of each calendar month.	✓		The hours of operation are documented monthly and input in the 12-month rolling spreadsheet.
IV.1: The permittee shall equip and maintain each engine in FG-4GENS-5173 with a non-resettable hour meter before startup of the engine.	✓		A non-resettable meters are installed on each emergency generator.
VI.1: The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.	✓		All required calculations in a format acceptable to the AQD District Supervisor by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition
VI.2: The permittee shall monitor in a satisfactory manner the hours of operation for each engine in FG-4GENS-5173 on a monthly basis.	✓		Hours of operation are documented during each use/ month. The hours are given to EHS monthly to document in the rolling spreadsheet.
VI.3: The permittee shall keep, in a satisfactory manner, monthly and previous 12-month NOx emission calculation records for FG-4GENS-5173, as required by SC I.4. The permittee shall keep all records on file and make them available to the Department upon request.	✓		Hours of operation are documented during each use/ month. The hours are given to EHS monthly to document in the rolling spreadsheet.
VI.4: The permittee shall keep, in a satisfactory manner, a written log of the monthly hours of operation of each engine in FG-4GENS-5173. Each log entry shall state whether operation was for maintenance checks and readiness testing or for some other purpose. The permittee shall keep all records on file and make them available to the Department upon request.	✓		Written log with run times, reasons, and maintenance maintained on site with unit.

Permit Condition	Compliance Status		Method Used to Determine Compliance
	Continuous	Intermittent	
VI.5: The permittee shall keep records of the sulfur content, in percent by weight, of the diesel fuel used in FG-4GENS-5173. The permittee shall keep a separate record of the sulfur content for each shipment of diesel fuel received. The permittee shall keep all records on file and make them available to the Department upon request.	✓		Sulfur content certifications is supplied by the vendor prior to delivery and also from each shipment. Copies of the fuel oil certifications are kep with Hospital Maintenance.
VII.1: Prompt reporting or deviations pursuant to General Conditions 21 and 22 of Part A.	✓		No deviations during this reporing period.
VII.2: Semi-annual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30.	✓		The semi-annual was submitted by September 15 for the reporting period of January 1 through June 30.
VII.3: Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year.	✓		The annual certification is submitted by March 15 for the reporting period for the previous calendar year.
VIII: Exhaust gases shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted.	✓		The gases discharge vertically upward due to construction of unit and stacks. The maximum exhaust dimension of the stacks are due to construction of the stacks. The minimum height of above ground is due to the construction of the building and units.
VIII.1.a: Maximum exhaust dimensions for SV-DGEN5173-01 shall be 20 inches.	✓		
VIII.1.b: The minimum height from the ground for SV-DGEN5173-01 shall be 164.2 feet.	✓		
VIII.2.a: Maximum exhaust dimensions for SV-DGEN5173-02 shall be 20 inches.	✓		
VIII.2.b: The minimum height from the ground for SV-DGEN5173-02 shall be 164.2 feet.	✓		
VIII.3.a: Maximum exhaust dimensions for SV-DGEN5173-03 shall be 20 inches.	✓		
VIII.3.b: The minimum height from the ground for SV-DGEN5173-03 shall be 164.2 feet.	✓		
VIII.4.a: Maximum exhaust dimensions for stack SV-DGEN5173-04 shall be 20 inches.	✓		
VIII.4.b: The minimum height of SV-DGEN5173-04 shall be 164.2 feet.	✓		
IX.1: The permittee shall comply with all provisions of 40 CFR Part 60, Subparts A and IIII, as they apply to FG-4GENS-5173.	✓		FG-4GENS-5173 permitted in accordance to 40 CFR Part 60 Subparts IIII.
IX.2: FG-4GENS-5173 complies with 40 CFR Part 63, Subpart ZZZZ by complying with 40 CFR Part 60, Subpart IIII.	✓		FG-4GENS-5173 permitted to be in compliance with Subpart ZZZZ.

Permit Condition	Compliance Status		Method Used to Determine Compliance
	Continuous	Intermittent	
Flexible Group: FG-10DGENS-2MW Ten generators at Medical Information Technology Center, Cardiovascular Center, Biological Sciences Research Building, University of Michigan Hospital, Medical Center Information Technology Building.			
I.1: **NOx**: NOx emissions shall not exceed 6.9 gram/hp-hr for each engine in FG-10DGENS-2MW.	✓		Continuously monitor the fuel oil usage for each emergency generator using respective flow meters on a monthly basis. The data is collected monthly.
I.2: **CO**: CO emissions shall not exceed 8.5 gram/hp-hr for each engine in FG-10DGENS-2MW.	✓		
I.3: **PM**: PM emissions shall not exceed 0.4 gram/hp-hr for each engine in FG-10DGENS-2MW.	✓		
I.4: **VOC**: VOC emissions shall not exceed 1.0 gram/hp-hr for each engine in FG-10DGENS-2MW.	✓		
I.5: **NOx**: NOx emissions shall not exceed 30.6 tons per year based on a 12-month rolling time period as determined at the end of each calendar month for units EU-MITC-GEN1, EU-MITC-GEN2, and EU-MITC-GEN3.	✓		
I.6: **NOx**: NOx emissions shall not exceed 20.4 tons per year based on a 12-month rolling time period as determined at the end of each calendar month for units EU-CVC-GEN1 and EU-CVC-GEN2.	✓		
I.7: **NOx**: NOx emissions shall not exceed 22.0 tons per year based on a 12-month rolling time period as determined at the end of each calendar month for units EU-BSRB-GEN1 and EU-BSRB-GEN2.	✓		
I.8: **NOx**: NOx emissions shall not exceed 22.4 tons per year based on a 12-month rolling time period as determined at the end of each calendar month for units EU-MCIT-GEN1 and EU-MCIT-GEN2.	✓		
II.1: **Diesel Fuel**: The permittee shall meet the specifications and requirements of 40 CFR 80.510 (b) for all of the current diesel fuels for FG-10DGENS-2MW.	✓		Sulfur content certifications is supplied by the vendor prior to delivery and also from each shipment. Copies of the fuel oil certifications are kept with facility unit.
II.2: **Diesel Fuel**: The permittee shall only burn diesel fuel with a maximum sulfur content of 15 ppm for FG-10DGENS-2MW.	✓		Sulfur content certifications is supplied by the vendor prior to delivery and also from each shipment. Copies of the fuel oil certifications are kept with facility unit.
III.1: The permittee shall operate each engine in FG-10DGENS-2MW in accordance with its manufacturer's written instructions or by operating procedures developed by the permittee that are approved by the manufacturer.	✓		Units operate the emergency generators per the manufacturer's recommendations.
III.2: The permittee shall not change or revise the operating instructions, procedures or settings for any engine in FG-10DGENS-2MW unless permitted by the manufacturer in writing.	✓		No changes in operating instructions. Units operate the emergency generators per the manufacturer's recommendations.
III.3: The permittee shall not operate any engine in FG-10DGENS-2MW for maintenance checks and readiness testing for more than 100 hours per 12-month rolling time period as determined at the end of each calendar month, except as allowed by 40 CFR 60.4211(e).	✓		The hours of operations are documented monthly and input in the rolling spreadsheet maintained by EHS.
III.4: The permittee shall not operate any engine in FG-10DGENS-2MW for any purpose for more than 500 hours per 12-month rolling time period as determined at the end of each calendar month.	✓		The hours of operations are documented monthly and input in the rolling spreadsheet maintained by EHS.

Permit Condition	Compliance Status		Method Used to Determine Compliance
	Continuous	Intermittent	
IV.1: The permittee shall equip and maintain each engine in FG-10DGENS-2MW with a non-resettable hour meter before startup of the engine.	✓		All units are have non-resettable meters installed.
VI.1: The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.	✓		All required calculations in a format acceptable to the AQD District Supervisor by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition
VI.2: The permittee shall monitor in a satisfactory manner the hours of operation for each engine in FG-10DGENS-2MW on a monthly basis.	✓		Hours of operation are documented during each use/ month. The hours are given to EHS monthly to document in the rolling spreadsheet.
VI.3: The permittee shall keep, in a satisfactory manner, monthly and previous 12-month NOx emission calculation records for FG-10DGENS-2MW, as required by SC I.5, I.6, I.7 and I.8. The permittee shall keep all records on file and make them available to the Department upon request.	✓		Hours of operation are documented during each use/ month. The hours are given to EHS monthly to document in the rolling spreadsheet.
VI.4: The permittee shall keep, in a satisfactory manner, a written log of the monthly hours of operation of each engine in FG-10DGENS-2MW. Each log entry shall state whether operation was for maintenance checks and readiness testing or some other purpose. The permittee shall keep all records on file and make them available to the Department upon request.	✓		Written log with run times, reasons, and maintenance maintained on site with unit or through the UM PM system.
VI.5: The permittee shall keep records of the sulfur content, in percent by weight, of the diesel fuel used in FG-10DGENS-2MW. The permittee shall keep a separate record of the sulfur content for each shipment of diesel fuel received. The permittee shall keep all records on file and make them available to the Department upon request.	✓		Sulfur content certifications is supplied by the vendor prior to delivery for each shipment. Copies of the fuel oil certifications are kep with unit.
VII.1: Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A.	✓		No deviations during this reporing period.
VII.2: Semi-annual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30.	✓		The semi-annual was submitted by September 15 for the reporting period of January 1 through June 30.
VII.3: Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year.	✓		The annual certification is submitted by March 15 for the reporting period for the previous calendar year.

Permit Condition	Compliance Status		Method Used to Determine Compliance
	Continuous	Intermittent	
VIII: Exhaust gases shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted.	✓		The gases discharge vertically upward due to construction of unit and stacks. The maximum exhaust dimension of the stacks are due to construction of the stacks. The minimum height of above ground is due to the construction of the building and units.
VIII.1.a: Maximum exhaust dimension for SV-MITC-GEN1 shall be 24 inches.	✓		
VIII.1.b: The minimum height above ground for SV-MITC-GEN1 shall be 17 feet.	✓		
VIII.2.a: Maximum exhaust dimension for SV-MITC-GEN2 shall be 24 inches.	✓		
VIII.2.b: The minimum height above ground for SV-MITC-GEN2 shall be 17 feet.	✓		
VIII.3.a: Maximum exhaust dimension for SV-MITC-GEN3 shall be 24 inches.	✓		
VIII.3.b: The minimum height above ground for SV-MITC-GEN3 shall be 17 feet.	✓		
VIII.4.a: Maximum exhaust dimension for SV-CVC-GEN1 shall be 24 inches.	✓		
VIII.4.b: The minimum height above ground for SV-CVC-GEN1 shall be 133 feet.	✓		
VIII.5.a: Maximum exhaust dimension for SV-CVC-GEN2 shall be 24 inches.	✓		
VIII.5.b: The minimum height above ground for SV-CVC-GEN2 shall be 133 feet.	✓		
VIII.6.a: Maximum exhaust dimension for SV-BSRB-GEN1 shall be 24 inches.	✓		
VIII.6.b: The minimum height above ground for SV-BSRB-GEN1 shall be 126 feet.	✓		
VIII.7.a: Maximum exhaust dimension for SV-BSRB-GEN2 shall be 24 inches.	✓		
VIII.7.b: The minimum height above ground for SV-BSRB-GEN2 shall be 126 feet.	✓		
VIII.8.a: Maximum exhaust dimension for SV-UMH-GEN4 shall be 35.8 inches.	✓		
VIII.8.b: The minimum height above ground for SV-UMH-GEN4 shall be 50 feet.	✓		
VIII.9.a: Maximum exhaust dimension for SV-MCIT-GEN1 shall be 24 inches.	✓		
VIII.9.b: The minimum height above ground for SV-MCIT-GEN1 shall be 15.3 feet.	✓		
VIII.10.a: Maximum exhaust dimension for SV-MCIT-GEN2 shall be 24 inches.	✓		
VIII.10.b: The minimum height above ground for SV-MCIT-GEN2 shall be 15.3 feet.	✓		
IX.1: The permittee shall comply with all provisions of 40 CFR Part 60, Subparts A and IIII, as they apply to FG-10DGENS-2MW.	✓		FG-10DGENS-2MW permitted in accordance to 40 CFR Part 60 Subparts IIII.
IX.2: FG-10DGENS-2MW complies with 40 CFR Part 63, Subpart ZZZZ by complying with 40 CFR Part 60, Subpart IIII.	✓		FG-10DGENS-2MW permitted to be in compliance with Subpart ZZZZ.

Permit Condition	Compliance Status		Method Used to Determine Compliance
	Continuous	Intermittent	
Flexible Group: FG-BOILERS1A&1B Boiler 1A and Boiler 1B at NCRC Powerhouse (EU-BOILER1A, EU-BOILER1B)			
I.1: **NOx**: NOx emissions shall not exceed 0.14 pound per million BTUs heat input for FG-BOILERS1A&1B.	✓		Monthly calculation of Nox via operating hours and daily fuel usage.
I.2: **NOx**: NOx emissions shall not exceed 1.02 tons per month for FG-BOILERS1A&1B.	✓		Monthly calculation of Nox via operating hours and daily fuel usage.
II.1: **No. 2 Fuel Oil**: No. 2 Fuel Oil shall not exceed 0.05% sulfur content by weight per 30-day rolling time period for FG-BOILER1A&1B.	✓		Suppliers certification received for each delivery along with grabbing a sample and sending out to 3rd party.
VI.1: 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.	✓		The density, sulfur and BTU content of fuel is monitored. A representative sample of the fuel oil fired at the NCRC Powerhouse is taken during each month that fuel oil is fired. The sample is submitted for an independent analysis of the density, sulfur content in percent by weight and BTU per gallon utilizing a method approved by AQD. The sample analyses are kept at the NCRC. Purchase records kept on site at NCRC and with UM Utilities department.
VI.2: 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 NCRC 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.	✓		The density, sulfur and BTU content of fuel is monitored. A representative sample of the fuel oil fired at the NCRC Powerhouse is taken during each month that fuel oil is fired. The sample is submitted for an independent analysis of the density, sulfur content in percent by weight and BTU per gallon utilizing a method approved by AQD. The sample analyses are kept at the NCRC.
VI.3: The permittee shall keep monthly and previous 12-month NOx calculation records for FG-BOILERS1A&1B. The permittee will show compliance with the SC I.1, NOx emission limit by maintaining records of total monthly fuel usage, operating hours, and by calculating the pounds per hour on a 12-month rolling time period using this data after the end of each calendar month. Emission calculations are based upon fuel usage and SC I.1, emission factors.	✓		Monthly calculation of Nox via operating hours and daily fuel usage. Calculation spreadsheet maintained by EHS.
VII.1: Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A.	✓		No deviations during this reporing period.
VII.2: Semi-annual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30.	✓		The semi-annual was submitted by September 15 for the reporting period of January 1 through June 30.
VII.3: Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year.	✓		The annual certification is submitted by March 15 for the reporting period for the previous calendar year.
VII.4: Semi-annual reports of certifications: The permittee will submit semi-annual reports of sulfur content certifications required to be reported pursuant to 40 CFR 60.48c by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30.	✓		Attached is a copy of the fuel oil certifications.
VIII: Exhaust gases shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted.	✓		Exhaust gases discharge vertically due to the contruction of the stack.
VIII.1.a: The minimum height above ground for SV-BOILERS1A&1B shall be 87 feet.	✓		The minimum height above ground is due to construction of stack.
IX.1: The permittee shall comply with all applicable provisions of 40 CFR Part 60, Subparts A and Dc, as they apply to FG-BOILERS1A&1B.	✓		FG-BOILERS1A&1B are permitted to comply with 40 CFR Part 60 per the DEQ.
IX.2: The permittee shall comply with all provisions of 40 CFR Part 63, Subparts A and DDDDD, as they apply to FG-BOILER1A&1B.	✓		UM performs annual maintenance to Boilers 1A and 1B to meet subpart DDDDD.

Permit Condition	Compliance Status		Method Used to Determine Compliance
	Continuous	Intermittent	
Flexible Group: FG-BOILER2&3 Boiler No. 2 and Boiler No. 3 at NCRC Powerhouse (EU-BOILER2, EU-BOILER3)			
I.1: **NOx**: NOx emissions shall not exceed 0.14 pounds per millions Btus heat input per 30-day rolling time period.	✓		Monthly calculation of Nox via operating hours and daily fuel usage.
I.2: **NOx**: NOx emissions shall not exceed 3.23 tons per month.	✓		Monthly calculation of Nox via operating hours and daily fuel usage.
II.1: **No. 2 Fuel Oil**: No. 2 fuel oil shall not exceed 0.10% sulfur content by weight per 30-day rolling time period.	✓		Suppliers certification received for each delivery along with grabbing a sample and sending out to 3rd party.
VI.1: 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.	✓		The density, sulfur and BTU content of fuel is monitored. A representative sample of the fuel oil fired at the NCRC Powerhouse is taken during each month that fuel oil is fired. The sample is submitted for an independent analysis of the density, sulfur content in percent by weight and BTU per gallon utilizing a method approved by AQD. The sample analyses are kept at the NCRC. Purchase records kept on site at NCRC and with UM Utilities department.
VI.2: 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 NCRC 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.	✓		The density, sulfur and BTU content of fuel is monitored. A representative sample of the fuel oil fired at the NCRC Powerhouse is taken during each month that fuel oil is fired. The sample is submitted for an independent analysis of the density, sulfur content in percent by weight and BTU per gallon utilizing a method approved by AQD. The sample analyses are kept at the NCRC.
VI.3: The permittee shall keep monthly and previous 12-month NOx calculation records for FG-BOILERS2&3. The permittee will show compliance with the SC I.1, NOx emission limit by maintaining records of total monthly fuel usage, operating hours, and by calculating the pounds per hour on a 12-month rolling time period using this data after the end of each calendar month. Emission calculations are based upon fuel usage and SC I.1, emission factors.	✓		Monthly calculation of Nox via operating hours and daily fuel usage. Calculation spreadsheet maintained by EHS.
VII.1: Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A.	✓		No deviations during this reporing period.
VII.2: Semi-annual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30.	✓		The semi-annual was submitted by September 15 for the reporting period of January 1 through June 30.
VII.3: Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year.	✓		The annual certification is submitted by March 15 for the reporting period for the previous calendar year.
VIII: Exhaust gases shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted.	✓		Exhaust gases discharge vertically due to the contruction of the stack.
VIII.1: The minimum height above ground for SV-BLR2 shall be 80 feet.	✓		The minimum height above ground is due to construction of stack.
VIII.2: The minimum height above ground for SV-BLR3 shall be 80 feet.	✓		
IX.1: The permittee shall comply with all provisions of 40 CFR Part 63, Subparts A and DDDDD, as they apply to FG-BOILERS2&3.	✓		UM performs annual maintenance to Boilers 2 and 3 to meet subpart DDDDD.

Permit Condition	Compliance Status		Method Used to Determine Compliance
	Continuous	Intermittent	
Flexible Group: FG-BOILERS5&6 Boiler No. 5 and Boiler No. 6			
I.1: **NOx**: NOx emissions shall not exceed 0.14 pounds per million BTUs heat input for FG-BOILERS5&6 per 30-day rolling time period.	✓		Monthly calculation of Nox via operating hours and daily fuel usage.
I.2: **NOx**: NOx emissions shall not exceed 3.58 tons per month for EU-BOILER5 and EU-BOILER6 per 30-day rolling time period.	✓		Monthly calculation of Nox via operating hours and daily fuel usage.
I.3: **Opacity:** Permittee shall not discharge to the atmosphere from Boiler No. 5 or Boiler No. 6 any gases that exhibit greater that 20% opacity (6-minute average) as specified in 40 CFR 60.43(c).	✓		The stack is observed periodically.
II.1: **Fuel Oil No. 2**: Fuel oil No. 2 cannot exceed 0.10% sulfur content by weight for FG-BOILERS5&6 per 30-day rolling time period.	✓		Supplier certifcation is received prior to delivery. The density, sulfur and BTU content of fuel is monitored. A representative sample of the fuel oil fired at the NCRC Powerhouse is taken during each month that fuel oil is fired. The sample is submitted for an independent analysis of the density, sulfur content in percent by weight and BTU per gallon utilizing a method approved by AQD. The sample analyses are kept at the NCRC
III.1: The permittee will operate FG-BOILERS5&6 in such a manner that the opacity limits as provided in 40 CFR 60.43c(c) will not be exceeded. The opacity standard applies at all times except during startup, shutdown, or malfunction.	✓		Fuel oil supplier certifications received prior to ensure fuel oil is less than .10% to comply with opacity standard.
VI.1: The permittee shall obtain fuel oil certification from the supplier for sulfur content of fuel oil used in FG-BOILERS5&6. The permittee will provide sulfur content certification for fuel oil and record daily fuel combustion amounts as required to comply with all applicable requirements in 40 CFR Part 60, Subparts A and Dc.	✓		Supplier certifcation is received prior to delivery. The density, sulfur and BTU content of fuel is monitored. A representative sample of the fuel oil fired at the NCRC Powerhouse is taken during each month that fuel oil is fired. The sample is submitted for an independent analysis of the density, sulfur content in percent by weight and BTU per gallon utilizing a method approved by AQD. The sample analyses are kept at the NCRC
VI.2: The permittee shall keep monthly and previous 12-month NO2 calculation records for FG-BOILERS5&6. The permittee will show compliance with the SC I.1, NO2 emission limit by maintaining records of total monthly fuel usage, operating hours, and by calculating the pounds per hour on a 12-month rolling time period using this data after the end of each calendar month. Emission calculations are based upon fuel usage and SC I.1, emission factors.	✓		Monthly calculation of Nox via operating hours and daily fuel usage. Calculation spreadsheet maintained by EHS.
VI.3: Monitoring and recording of emissions and operating information for EU-BOILER5 and EU-BOILER6 is required to comply with all of the applicable requirements in the Federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60, Subparts A and Dc. All source emissions data and operating data required to be reports by 40 CFR Part 60.48c (Subpart Dc) shall be submitted in an acceptable format and postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30.	✓		All monitoring and recording of emissions and operating information for Boiler 5 & 6 are kept on site. Daily fuel use maintained on site. Supplier certifcations submitted to the DEQ semiannually.
VII.1: Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A.	✓		No deviations during this reporing period.
VII.2: Semi-annual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30.	✓		The semi-annual was submitted by September 15 for the reporting period of January 1 through June 30.
VII.3: Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year.	✓		The annual certification is submitted by March 15 for the reporting period for the previous calendar year.
VIII: Exhaust gases shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted.	✓		Minimum height above ground is due to the construction of the stack. Exhaust gases discharge unobstructed vertically due to construction of stack.
VIII.1: The minimum height above ground for SVBOILER5 shall be 87 feet.	✓		
VIII.2: The minimum height above ground for SVBOILER6 shall be 87 feet.	✓		
IX.1: The permittee shall comply with all applicable provisions of 40 CFR Part 60, Subparts A and Dc, as they apply to FG-BOILERS5&6.	✓		FG-BOILERS5&6 are permitted to comply with 40 CFR Part 60 per the DEQ.
IX.2: The permittee shall comply with all provisions of 40 CFR Part 63, Subparts A and DDDDD, as they apply to FG-BOILERS5&6.	✓		UM performs annual maintenance to Boilers 5 and 6 to meet subpart DDDDD.

Permit Condition	Compliance Status		Method Used to Determine Compliance
	Continuous	Intermittent	
Flexible Group: FG-85EMERGENS Two RICE generators at NCRC Powerhouse. (EU-85EMERGEN1, EU-85EMERGEN2)			
I.1: **NOx**: NOx emissions shall not exceed 15.4 tons per year based on a 12-month rolling time period as determined at the end of each calendar month.	✓		Monthly calculation of Nox via operating hours and daily fuel usage.
II.1: **Diesel Fuel**: Diesel fuel is the only fuel allowed for FG-85EMERGENS.	✓		85EMERGENS can only burn diesel fuel.
III.1: The permittee shall not operate EU-85EMERGEN1 of EU-85EMERGEN2 for more than 500 hours each per 12-month rolling time period as determined at the end of each calendar month.	✓		Monthly calculations of operating hours and fuel usage.
VI.1: The permittee shall equip and maintain each of the emergency generators in FG-85EMERGENS with a device to monitor the hours of operation.	✓		Each 85EMERGENS maintain non resettable meters.
VI.2: The permittee shall monitor the hours of operation for FG-85EMERGENS on a monthly basis in a manner and with instrumentation acceptable to the District Supervisor, Air Quality Division.	✓		Monthly cacluation of operating hours arne fuel usage.
VI.3: The permittee shall keep records of the hours of operation of FG-85EMERGENS on a monthly basis and 12-month rolling time period basis as determined at the end of each calendar month. All records shall be kept on file for a period of at least five years and made available to the Department upon request.	✓		EHS maintains the 12-month rolling hours of operation spreadsheet.
VI.4: The permittee shall calculate monthly and 12-month rolling time period NOx emissions from FG-85EMERGENS and shall keep these calculations on file for a period of at least five years and make them available to the Department upon request.	✓		EHS maintains the 12-month rolling Nox emissions spreadsheet.
VII.1: Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A.	✓		No deviations during this reporing period.
VII.2: Semi-annual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30.	✓		The semi-annual was submitted by September 15 for the reporting period of January 1 through June 30.
VII.3: Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year.	✓		The annual certification is submitted by March 15 for the reporting period for the previous calendar year.
IX.1: The permittee shall comply with all applicable provisions of 40 CFR Part 63, Subparts A and ZZZZ, as they apply to FG-85EMERGENS.	✓		85EMERGENS meet supbart ZZZZ and the initial notification was submitted via Pfizer.

Permit Condition	Compliance Status		Method Used to Determine Compliance
	Continuous	Intermittent	
Flexible Group: FG-85FIREPUMPS Two emergency RICE fire protections pumps (EU-B85-FIRE1, EU-B85-FIRE2)			
I.1: **NOx**: NOx emissions shall not exceed 1.41 tons per year based on a 12 month rolling time period as determined at the end of each calendar month.	✓		Monthly calculation of Nox via operating hours and daily fuel usage.
II.1: **Diesel Fuel**: Diesel fuel is the only fuel allowed for FG-85FIREPUMPS.	✓		85FIREPUMPS can only burn diesel fuel.
III.1: The permittee shall not operate EU-B85FIRE1 or EU-B85FIRE2 for more than 500 hours each per 12-month rolling time period as determined at the end of each calendar month.	✓		Monthly calculations of operating hours and fuel usage. EHS maintains the spreadsheet.
VI.1: The permittee shall equip and maintain each of the fire protection pumps in FG-85FIREPUMPS with a device to monitor the hours of operation.	✓		Each FIREPUMP is equipped with non resettable meters.
VI.2: The permittee shall monitor the hours of operation for FG-85FIREPUMPS on a monthly basis in a manner and with instrumentation acceptable to the District Supervisor, Air Quality Division.	✓		Monthly calculations of operating hours and fuel usage. EHS maintains the spreadsheet.
VI.3: The permittee shall keep records of the hours of operation of FG-85FIREPUMPS on a monthly basis and 12-month rolling time period basis as determined at the end of each calendar month. All records shall be kept on file for a period of at least five years and made available to the Department upon request.	✓		EHS maintains the 12-month rolling hours of operationg spreadsheet.
VI.4: The permittee shall calculate monthly and 12-month rolling time period NOx emissions from FG-85FIREPUMPS and shall keep these calculations on file for a period of at least five years and make them available to the Department upon request.	✓		EHS maintains the 12-month rolling Nox emissions spreadsheet.
VII.1: Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A.	✓		No deviations during this reporing period.
VII.2: Semi-annual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30.	✓		The semi-annual was submitted by September 15 for the reporting period of January 1 through June 30.
VII.3: Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year.	✓		The annual certification is submitted by March 15 for the reporting period for the previous calendar year.
IX.1: The permittee shall comply with all applicable provisions of 40 CFR Part 63, Subparts A and ZZZZ as they apply to FG-85FIREPUMPS.	✓		85FIREPUMPS meet supbart ZZZZ and the initial notification was submitted via Pfizer.
Flexible Group: FG-EMERG-IIII			
I.1: **NOx**: See Table 1 and/or Table 2 Subpart IIII	✓		Units affected by Subpart IIII meet the EPA emissions limits per the manufacturer certification/ specifications.
I.2: **HC**: See Table 1 and/or Table 2 Subpart IIII	✓		
I.3: **NMHC + NOx**: See Table 1 and/or Table 2 Subpart IIII	✓		
I.4: **CO**: See Table 1 and/or Table 2 Subpart IIII	✓		
I.5: **PM**: See Table 1 and/or Table 2 Subpart IIII	✓		

Permit Condition	Compliance Status		Method Used to Determine Compliance
	Continuous	Intermittent	
II.1: **NR Diesel Fuel**: NR diesel fuel shall not exceed 15 ppm sulfur content.	✓		Units affected by Subpart IIII located on UM campus can only burn diesel fuel.
III.1: Emergency stationary ICE may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local governments, manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is not limit on the use of emergency stationary ICE in emergency situations. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but 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 ICE beyond 100 hours per year. Emergency stationary ICE may operate up to 50 hours per year in non-emergency situations, those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply non-emergency power as part of a financial arrangement with another entity. For owners and operators of emergency engines, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year as permitted in this sections, is prohibited.	✓		All affected Subpart IIII units are only for emergency purposes. Runtimes are maintained on site with unit and provided to EHS for the 12-month rolling spreadsheet. Also campus units monthly maintenance sheets scanned into the UM Mbox account showing operating time. EHS uses to maintain the 12-month rolling spreadsheet(s)/ database.
III.2: The owner or operator must purchase an engine certified according to 40 CFR Part 89 or 40 CFR Part 94 as applicable, for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's specifications.	✓		Engines are certified engines per the manufacturer and installed as per the manufacturer.
III.3: The owner or operator must operate and maintain the stationary CI ICE and control device according to the manufacturer's emission-related written instructions; change only those emission-related settings that are permitted by the manufacturer; and meet the requirements of 40 CFR Parts 89, 94, and/or 1068, as they apply to you.	✓		All maintenance is documented and filed on site or within the UM Preventative Maintenance system.
III.4: Owners and operators of stationary CI ICE must operate and maintain stationary CI ICE that achieve the emission standards as required in 40 CFR 60.4204 and 40 CFR 60.4205 over the entire life of the engine.	✓		UM maintains certified engines as per the manufacturer's recommendations.
IV.1: The owner or operator shall equip and maintain each engine in FG-EMERG-IIII with non-resettable hour meters to track the operating hours.	✓		All engines affected by Subpart IIII have non resettable meters installed.
VI.1: The permittee shall keep records of the following for FG-EMERG-IIII: a. All notifications. b. All maintenance performed on the engine. c. If using a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards of 40 CFR Part 60, Subpart IIII. d. If not using a certified engine, documentation that the engine meets the emission standards, which shall be demonstrated with an initial performance test within one year of engine installation. e. The permittee shall keep a complete copy of the diesel fuel analysis including the sulfur content in percent, as supplied by the vendor for each shipment of diesel fuel received.	✓		a. All notifications are filed at EHS: b. All maintenance performed is documented on site with unit or within the UM Preventative Maintenance system; c. All engines affected by Supbart III are certified per the Manufacturer's specifications; d. Supplier certifications kept on site with unit or with facility.

Permit Condition	Compliance Status		Method Used to Determine Compliance
	Continuous	Intermittent	
VII.1: Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A.	✓		No deviations during this reporing period.
VII.2: Semi-annual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30.	✓		The semi-annual was submitted by September 15 for the reporting period of January 1 through June 30.
VII.3: Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. Report shall be received by appropriate AQD district office by March 15 for the previous calendar year.	✓		The annual certification is submitted by March 15 for the reporting period for the previous calendar year.
IX.1: The permittee shall comply with all provisions of 40 CFR Part 60, Subparts A and IIII, as they apply to FG-EMERG-IIII.	✓		The units impacted by Subpart IIII are permitted to comply per the DEQ.
IX.2: FG-EMERG-IIII complies with 40 CFR Part 63, Subpart ZZZZ by complying with 40 CFR Part 60, Subpart IIII.	✓		All initial notifications were submitted.
Flexible Group: FG-EMERG-JJJJ			
I.1: **NOx for engines 25<HP<130**: NOx emissions for engines with HP between 25 and 130 shall not exceed 10 grams per HP-hr.	✓		Units affected by Subpart JJJJ meet the EPA emissions limits per the manufacturer certification/ specifications or tested by a third party emissions stack testing group.
I.2: **NOx for engines HP>=130**: NOx emissions for engines with HP larger than or equal to 130 shall not exceed 2.0 grams per HP-hr or 160 ppmvd at 15% O2.	✓		
I.3: **CO for engines 25<HP<130**: CO emissions for engines with HP between 25 and 130 shall not exceed 387 grams per HP-hr.	✓		
I.4: **CO for engines HP>=130**: CO emissions for engines with HP greater than or equal to 130 shall not exceed 4.0 grams per HP-hr or 540 ppmvd at 15% O2.	✓		
I.6: **VOC for engines HP>=130**: VOC emissions for engines with HP greater than 130 shall not exceed 1.0 grams per HP-hr or 86 ppmvd at 15% O2.	✓		
III.1: Emergency stationary SI ICE may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but 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 ICE beyond 100 hours per year. Emergency stationary ICE may operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. For owners and operators of emergency engines, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year as permitted in this section, is prohibited.	✓		All affected Subpart JJJJ units are only for emergency purposes. Runtimes are maintained on site with unit and scanned into the UM Mbox account showing operating time. EHS uses to maintain the 12-month rolling spreadsheet(s)/ database.

Permit Condition	Compliance Status		Method Used to Determine Compliance
	Continuous	Intermittent	
III.2: Owners and operators of stationary SI natural gas fired engines may operate their engines using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations, but must keep records of such use. If propane is used for more than 100 hours per year in an engine that is not certified to the emission standards when using propane, the owners and operators are required to conduct a performance test to demonstrate compliance with the emission standards of 60.4233.	✓		No units operate with propane.
III.3: If you are an owner or operator of a stationary SI ICE that is less than or equal to 500 HP and you purchase a non-certified engine or you do not operate or maintain your certified stationary SI ICE and control device according to the manufacturer's written emission-related instructions, you are required to perform initial performance testing as indicated in this section, but you are not required to conduct subsequent performance testing unless the stationary engine is rebuilt or undergoes major repair or maintenance. A rebuilt stationary SI ICE means an engine that has been rebuilt as that term is defined in 40 CFR 94.11(a).	✓		Units affected by Subpart JJJJ meet the EPA emissions limits per the manufacturer certification/ specifications or tested by a third party emissions stack testing group.
III.4: It is expected that air-to-fuel ratio controllers will be used with the operation of three-way catalysts/non-selective catalytic reduction. The AFR controller must be maintained and operated appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times.	✓		Engines are maintained per the manufacturer's recommendations.
III.5: If you are an owner/operator of a stationary SI ICE with maximum engine power greater than or equal to 500 HP that is manufactured after July 1, 2007 and before July 1, 2008, and must comply with the emission standards specified in sections 60.4233(b) or (c), you must comply by one of the methods specified in paragraphs (h)(1) through (h)(4) of this section.	✓		Units affected by Subpart JJJJ meet the EPA emissions limits per the manufacturer certification/ specifications or tested by a third party emissions stack testing group.
IV.1: Starting on July 1, 2010, if the emergency stationary SI ICE that is greater than or equal to 500 HP that was built on or after July 1, 2010, does not meet the standards applicable to non-emergency engines, the owner or operator must install a non-resettable hour meter.	✓		NA

Permit Condition	Compliance Status		Method Used to Determine Compliance
	Continuous	Intermittent	
IV.2: Starting on January 1, 2011, if the emergency stationary SI ICE that is greater than or equal to 130 HP and less than 500 HP that was built on or after January 1, 2011, does not meet the standards applicable to non-emergency engines, the owner or operator must install a non-resettable hour meter.	✓		All UM engines are for emergency purposes only.
IV.3: If you are an owner or operator of an emergency stationary SI ICE that is less than 130 HP, was built on or after July 1, 2008, and does not meet the standards applicable to non-emergency engines, you must install a non-resettable hour meter upon startup of your emergency engine.	✓		
V.1: If you are an owner or operator of a stationary SI ICE that is manufactured after July 1, 2008, and must comply with the emission standards specified in 60.4233(a) through (c), you must comply by purchasing an engine certified to the emission standards in 60.4231(a) through (c), as applicable, for the same engine class and maximum engine power. You must also meet the requirements as specified in 40 CFR Part 1068, Subparts A through D, as they apply to you. If you adjust engine settings according to and consistent with the manufacturer's instructions, your stationary SI ICE will not be considered out of compliance. In addition, you must meet one of the requirements specified in (a)(1) and (2) of this section.	✓		Engines are maintained per the manufacturer's recommendations.
V.2: If you are an owner or operator of a stationary SI ICE and must comply with the emission standards specified in 60.4233(d) or (e), you must demonstrate compliance according to one of the methods specified in paragraphs (b)(1) and (2) or this section. a. Purchasing an engine certified according to procedures specified in this subpart, for the same model year and demonstrating compliance according to one of the methods specified in paragraph 40 CFR 60.4243(a). b. Purchasing a non-certified engine and demonstrating compliance with the emission standards specified in 60.4233(d) or (e) and according to the requirements specified in 60.4244, as applicable, and according to paragraphs 40 CFR 60.4243(b)(2)(i) and (ii). i. If you are an owner or operator of a stationary SI ICE greater than 25 HP and less than or equal to 500 HP, you must conduct an initial performance test to demonstrate compliance. ii. If you are an owner or operator of a stationary SI ICE greater than 500 HP, you must conduct an initial performance test and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance.	✓		Units affected by Subpart JJJJ meet the EPA emissions limits per the manufacturer certification/ specifications or tested by a third party emissions stack testing group.
VI.1: For each emergency stationary SI ICE you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions.	✓		Runtimes are maintained on site with unit and scanned into the UM Mbox account showing operating time. EHS uses to maintain the 12-month rolling spreadsheet(s)/ database. Maintenance is noted on scanned sheets and documented in UM EHS emergency generator database.

Permit Condition	Compliance Status		Method Used to Determine Compliance
	Continuous	Intermittent	
VI.2: The permittee shall keep records of the following for FG-EMERG-JJJJ: a. All notifications. b. All maintenance performed on the engine. c. If using a certified engine, documentation from the manufacturer that the engine is certified to meet the emissions standards of 40 CFR Part 60, Subpart JJJJ, as applicable. d. If not using a certified engine, documentation that the engine meets the emissions standards, which shall be demonstrated with an initial performance test within one year of engine installation.	✓		a. All notifications are filed at EHS: b. All maintenance performed is documented on site with unit or within the UM Preventative Maintenance system; c.&d. All engines affected by Supbart JJJJ are certified per the Manufacturer's specifications or third party certified;
VII.1: Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A.	✓		No deviations during this reporing period.
VII.2: Semi-annual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30.	✓		The semi-annual was submitted by September 15 for the reporting period of January 1 through June 30.
VII.3: Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year.	✓		The annual certification is submitted by March 15 for the reporting period for the previous calendar year.
IX.1: The permittee shall comply with all provisions of 40 CFR Part 60, Subparts A and JJJJ, as they apply to FG-EMERG-JJJJ.	✓		Units impacted by Subpart JJJJ comply with provisions of 40 CFR Part 60, Subpart A and JJJJ..
IX.2: FG-EMERG-JJJJ complies with 40 CFR Part 63, Subpart ZZZZ by complying with 40 CFR Part 60, Subpart JJJJ.	✓		Units in complance with Subpart JJJJ are in compliance with Subpart ZZZZ.
Flexible Group: FG-EMERG-ZZZZ			
III.1.a: For CI engines: i. Change oil and filter every 500 hours of operation or annually, whichever comes first. ii. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first. iii. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. iv. During periods of startup you must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.	✓		UM has a monthly preventative maintenance program for emergency generators and maintained in the Plant Operations Preventative Maintenance FMS. EHS also maintains run times and maintenance performed in the emergency generator database.

Permit Condition	Compliance Status		Method Used to Determine Compliance
	Continuous	Intermittent	
III.1.b: For Spark Ignition engines: i. Change oil and filter every 500 hours of operation or annually, whichever comes first. ii. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first. iii. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	✓		UM has a monthly preventative maintenance program for emergency generators and maintained in the Plant Operations Preventative Maintenance FMS. EHS also maintains run times and maintenance performed in the emergency generator database.
III.1.c: You must operate the emergency stationary RICE according to the requirements in paragraphs 63.6640(f)(1)(i) through (iii). Any operation other than emergency operation, maintenance and testing, and operation in non-emergency situation for 50 hours per year, as described in paragraphs 63.6640(f)(1)(i) through (iii) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs 63.6640 (f)(1)(i) through (iii) of this section, the engine will not be considered an emergency engine under this subpart and will need to meet all requirements for non-emergency engines.	✓		All engines are for emergency purposes only.
III.1.d: There is no time limit on the use of emergency stationary RICE in emergency situations.	✓		All engines are for emergency purposes only.
III.1.e: You may operate your emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but 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 RICE beyond 100 hours per year.	✓		No petitions submitted. Operating run times are documented.
III.1.f: You may operate your emergency stationary RICE up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity; except that owners and operators may operate the emergency engine for a maximum of 15 hours per year as part of a demand response program if the regional transmission organization or equivalent balancing authority and transmission operator has determined there are emergency conditions that could lead to a potential electrical blackout, such as unusually low frequency, equipment overload, capacity or energy deficiency, or unacceptable voltage level. The engine may not be operated for more than 30 minutes prior to the time when the emergency condition is expected to occur, and the engine operation must be terminated immediately after the facility is notified that the emergency is no longer imminent. The 15 hours per year of demand response operation are counted as part of the 50 hours of operation per year provided for non-emergency situations. The supply of emergency power to another entity or entities pursuant to financial arrangement is not limited by this paragraph (f)(1)(iii), as long as the power provided by the financial arrangement is limited to emergency power.	✓		All engines are for emergency purposes only.
III.1.g: You must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.	✓		Where applicable, engines are maintained per the manufacturer's recommendations.

Permit Condition	Compliance Status		Method Used to Determine Compliance
	Continuous	Intermittent	
III.2.a: You must operate the engine according to the conditions described in paragraphs (f)(2)(i) through (iii) of this section. If you do not operate the engine according to the requirements in paragraphs (f)(2)(i) through (iii) of this section, the engine will not be considered an emergency engine under this subpart and will need to meet all requirements for non-emergency engines.	✓		All engines are for emergency purposes only.
III.2.b: There is no time limit on the use of emergency stationary RICE in emergency situations.	✓		All engines are for emergency purposes only.
III.2.c: You may operate your emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by the manufacturer, the vendor, or the insurance company associated with the engine. Required testing of such units should be minimized, but there is no time limit on the use of emergency stationary RICE in emergency situations and for routine testing and maintenance.	✓		All engines are for emergency purposes only. Runtimes are documented on site at the unit or in the FMS.
III.2.d: You may operate your emergency stationary RICE for an additional 50 hours per year in non-emergency situations. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.	✓		All engines are for emergency purposes only. Runtimes are documented on site at the unit or in the FMS.
IV.1: If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, you must install a non-resettable hour meter if one is not already installed.	✓		Engines are equipped with non resettable meters.
VI.1: For each existing emergency and black start stationary RICE less than or equal to 500 HP located at a major source of HAP, you must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan.	✓		Where applicable, engines are maintained per the manufacturer's recommendations.
VII.1: Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A.	✓		No deviations during this reporing period.
VII.2: Semi-annual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30.	✓		The semi-annual was submitted by September 15 for the reporting period of January 1 through June 30.
VII.3: Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year.	✓		The annual certification is submitted by March 15 for the reporting period for the previous calendar year.
IX.1: The permittee shall comply with all applicable provisions of 40 CFR Part 63, Subparts A and ZZZZ as they apply to FG-EMERG-ZZZZ.	✓		Engines comply with Subpart ZZZZ.

Permit Condition	Compliance Status		Method Used to Determine Compliance
	Continuous	Intermittent	
Flexible Group: FG-BOILERMACT			
I.1: **HCl**: HCl emissions from new or reconstructed boilers and process heaters fired by light liquid fuel shall not exceed 4.4E-04 pounds per MMBtu. See Table 1 Subpart DDDDD Light liquid fuel.	✓		All UM boilers are catergorized as gas 1 and therefore emission limits NA.
I.2: **Mercury**: Mercury emissions from new or reconstructed boilers and process heaters fired by light liquid fuel shall not exceed 4.8E-07 pounds per MMBtu. See Table 1 Subpart DDDDD Light liquid fuel.	✓		
I.3: **CO**: CO emissions from new or reconstructed boilers and process heaters fired by light liquid fuel shall not exceed 130 ppm by volume on a dry basis corrected to 3% O2. See Table 1 Subpart DDDDD Light liquid fuel.	✓		
I.4: **Filterable PM (or Total Selected Metals, TSM)**: Filterable PM (or TSM, as defined in 40 63.7575) emissions from new or reconstructed boilers and process heaters fired by light liquid fuel shall not exceed 1.1E-03 pounds per MMBtu. See Table 1 Subpart DDDDD Light liquid fuel.	✓		
I.5: **HCl**: HCl emissions from existing boilers and process heaters fired by light liquid fuel shall not exceed 1.1E-03 pounds per MMBtu. See Table 2 Subpart DDDDD Light liquid fuel.	✓		
I.6: **Mercury**: Mercury emissions for existing boilers and process heaters fired by light liquid fuel shall not exceed 2.0E-06 pounds per MMBtu. See Table 2 Subpart DDDDD Light liquid fuel.	✓		
I.7: **CO**: CO emissions for existing boilers and process heaters fired by light liquid fuel shall not exceed 130 ppm by volume on a dry basis corrected to 3% O2.	✓		
I.8: **Filterable PM (or TSM)**: Filterable PM (or TSM, as defined in 40 CSR 63.7575) emissions for existing boilers and process heaters fired by light liquid fuel shall not exceed 7.9E-03 pounds per MMBtu. See Table 2 Subpart DDDDD Light liquid fuel.	✓		
III.1: Units designed to burn gas 1 subcategory includes any boiler or process heater that burns only natural gas, refinery gas, and/or other gas 1 fuels. Gaseous fuel boilers and process heaters that burn liquid fuel for periodic testing of liquid fuel, maintenance, or operator training, not to exceed a combined total of 48 hours during any calendar year, are included in this definition. Gaseous fuel boilers and process heaters that burn liquid fuel during periods of gas curtailment or gas supply interruptions of any duration are also included in this definition.	✓		All UM boilers are catergorized as gas 1.
IV.1: All affected boilers or process heaters subject to 40 CFR Part 63, Subpart DDDDD located at UM only burn "gas 1 subcategory fuel", "liquid subcategory fuel", or "light liquid subcategory fuel".	✓		All UM boilers are catergorized as gas 1. Light liquid units agreed to burn less than 48 hours accept for emergency situations.
V.1: If your affected boiler or process heater is designed to burn light liquid fuel, you must conduct performance tests according to 63.7520 on an annual basis. If the performance test for a given pollutant for at least 2 consecutive years show that your emissions are at or below 75 percent of the emission limit, and there are no changes in the operation of the boiler that could increase emissions, you may choose to conduct a performance test for the pollutant every third year. If the performance test for the given pollutant is not below 75 percent, annual performance testing is required.	✓		All UM boilers are catergorized as gas 1.
V.2: If your affected boiler or process heater is designed to burn light liquid subcategory and combust ultra low sulfur liquid fuel, you do not need to conduct further performance tests if the pollutants measured during the initial compliance performance tests meet the emission limits in Tables 1 and 2 of this subpart, providing you demonstrate ongoing compliance with the emission limits by monitoring and recording the type of fuel combusted on a monthly basis.	✓		All UM boilers are catergorized as gas 1.

Permit Condition	Compliance Status		Method Used to Determine Compliance
	Continuous	Intermittent	
V.3: The permittee must demonstrate continuous compliance with each emission limit in Tables 1 and 2 or 11 through 13 to this subpart, the work practice standards in Table 3 to this subpart, and the operating limits in Table 4 to this subpart that applies to the permittee according to the methods specified in Table 8 to this subpart and paragraphs (a)(1) through (19) of this section.	✓		All UM boilers are catergorized as gas 1.
VI.1. The permittee shall keep records of the following for FG-BOILERMACT: a. Annual tune-up for existing or new boilers or process heaters greater than or equal to 10 MMBtu per hour heat input. b. Biennial tune-up for existing or new boilers or process heaters less than 10 MMBtu per hour heat input. c. Five year tune-up for boilers with a continuous oxygen trip system that maintains an optimum air to fuel ratio, or a heat input of less than or equal to 5 MMBtu per hour and the unit is in the units designed to burn gas 1; or units designed to burn light liquid subcategories.	✓		All affected boilers perform annual or biennial tune ups as part of the UM preventative maintenance program.
VI.2: For sources demonstrating compliance through fuel analysis, supporting documentation should include results of any fuel analyses and basis for estimates.	✓		All UM boilers are catergorized as gas 1.
VII.1: Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A.	✓		No deviations during this reporing period.
VII.2: Semi-annual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30.	✓		The semi-annual was submitted by September 15 for the reporting period of January 1 through June 30.
VII.3: Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year.	✓		The annual certification is submitted by March 15 for the reporting period for the previous calendar year.
VII.4: The permittee is required to submit a first compliance report according to the schedule listed in 63.7550(b)(1) and (2); followed by subsequent compliance reports on a semi-annual basis according to 63.7550(b)(3). For units that are subject only to a requirement to conduct an annual, biennial, or 5-year tune-up according to 63.7540(a)(10), (11), or (12), respectively, and not subject to emission limits or operating limits, you may submit only an annual, biennial, or 5-year compliance report, as applicable, as specified in paragraphs (b)(1) through (4) of this section, instead of a semi-annual compliance report.	✓		First compliance report submitted January 2017 via CEDRI.
VII.5: The permittee must submit compliance reports according to the procedures specified in paragraphs 63.7550(h)(1) through (3).	✓		First compliance report submitted January 2017 via CEDRI.
IX.1: The permittee must have a one-time energy assessment performed by a qualified energy assessor as defined in 40 CFR 63.7575, and as specified in 40 CFR Part 63, Subpart DDDDD, Table 3.	✓		One-time energy assessment was completed in January 2017. Copy at EHS.
IX.2.a: The permittee must conduct a tune-up of the boiler or process heater every 5 years as specified in 63.7540 for a new or existing boiler or process heater with a continuous oxygen trim system that maintains an optimum air to fuel ratio, or a heat input capacity less than or equal to 5 MMBtu per hour for a unit designed to burn gas 1, or light liquid fuel.	✓		All affected boilers perform annual or biennial tune ups as part of the UM preventative maintenacne program.
IX.2.b: The permittee must conduct a tune-up of the boiler or process heater biennially as specified in 63.7540 for a new or existing boiler or process heater without a continuous oxygen trim system and with a heat input capacity of less than 10 MMBtu per hour but greater than 5 MMBtu per hour in a unit designed to burn gas 1 or light liquid fuel.	✓		All affected boilers perform annual or biennial tune ups as part of the UM preventative maintenacne program.
IX.2.c: The permittee must conduct a tune-up of the boiler or process heater annually as specified in 63.7540 for a new or existing boiler or process heater without a continuous oxygen trim system and with a heat input capacity of 10 MMBtu per hour or greater.	✓		All affected boilers perform annual or biennial tune ups as part of the UM preventative maintenacne program.
IX.3: The permittee shall comply with all provisions of 40 CFR Part 63, Subparts A and DDDDD, as they apply to FG-BOILERMACT.	✓		All provisions reviewed. *See attached deviation report on initial notification.*

Permit Condition	Compliance Status		Method Used to Determine Compliance
	Continuous	Intermittent	
Flexible Group: FG-COLDCLEANER			
II.1: The permittee shall not use cleaning solvents containing more than five percent by weight of the following halogenated compound: methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, chloroform, or any combination thereof.	✓		No units on campus use cleaners containing more than 5 percent by weight of the following halogenated compounds: methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, chloroform, or any combination thereof.
III.1: Cleaned parts shall be drained for no less than 15 seconds or until dripping ceases.	✓		All parts are drained for no less than 15 seconds within case.
III.2: The permittee shall perform routine maintenance on each cold cleaner as recommended by the manufacturer.	✓		Cold Cleaners on campus have contracts to maintain units. EHS HazMat assists with units if needed.
IV.1: The cold cleaner must meet one of the following design requirements: a. The air/vapor interface of the cold cleaner is no more than ten square feet. b. The cold cleaner is used for cleaning metal parts and the emissions are released to the general in-plant environment.	✓		No units are greater than 10 square feet and is only for cleaning metal parts.
IV.2: The cold cleaner shall be equipped with a device for draining cleaned parts.	✓		All units are available to drain clean parts.
IV.3: All new and existing cold cleaners shall be equipped with a cover and the cover shall be closed whenever parts are not being handled in the cold cleaner.	✓		All units on campus have covers. They are kept covered whenever parts are not being handled. Periodic inspections are conducted by UM EHS.
IV.4: The cover of a new cold cleaner shall be mechanically assisted if the Reid vapor pressure of the solvent is more than 0.3 psia or if the solvent is agitated or heated.	✓		The cover is mechanically assisted for the units that have a Reid vapor pressure greater than 0.3 psia.
IV.5: If the Reid vapor pressure of any solvent used in a new cold cleaner is greater than 0.6 psia; or, if any solvent used in a new cold cleaner is heated above 120 degrees Fahrenheit, then the cold cleaner must comply with at least one of the following provisions: a. The cold cleaner must be designed such that the ratio of the freeboard height to the width of the cleaner is equal to or greater than 0.7. b. The solvent bath must be covered with water if the solvent is insoluble and has a specific gravity of more than 1.0. c. The cold cleaner must be controlled by a carbon adsorption system, condensation system, or other method of equivalent control approved by the AQD.	✓		No units installed.
VI.1: For each new cold cleaner in which the solvent is heated, the solvent temperature shall be monitored and recorded at least once each calendar week during routine operating conditions.	✓		No units installed.

Permit Condition	Compliance Status		Method Used to Determine Compliance
	Continuous	Intermittent	
VI.2. The permittee shall maintain the following information on file for a period of five years for each cold cleaner: a. A serial number, model number, or other unique identifier for each cold cleaner. b. The date the unit was installed, manufactured or that it commenced operation. c. The air/vapor interface area for any unit claimed to be exempt under Rule 281 (h). d. The applicable Rule 201 exemption. e. The Reid vapor pressure of each solvent used. f. If applicable, the option chosen to comply with Rule 707 (2).	✓		Information for each cold cleaner maintained on site with unit and at EHS.
VI.3: The permittee shall maintain written operating procedures for each cold cleaner. These written procedures shall be posted in an accessible, conspicuous location near each cold cleaner.	✓		All units have procedures posted.
VI.4: As noted in Rule 611(2)(c) and Rule 707(3)(c), if applicable, an initial demonstration that the waste solvent is a safety hazard shall be made prior to storage in non-closed containers. If the waste solvent is a safety hazard and is stored in non-closed containers, verification that the waste solvent is disposed of so that not more than 20 percent, by weight, is allowed to evaporate into the atmosphere shall be made on a monthly basis.	✓		All units have closed (contained) units to prevent evaporation.
VII.1: Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A.	✓		No deviations during this reporing period.
VII.2: Semi-annual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30.	✓		The semi-annual was submitted by September 15 for the reporting period of January 1 through June 30.
VII.3: Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year.	✓		The annual certification is submitted by March 15 for the reporting period for the previous calendar year.
Flexible Group: FG-RULE287(c)			
II.1: **Coatings**: Coatings shall not exceed 200 gallons per month, as applied, minus water, per emission unit.	✓		III.A.3: Coating usage rate: monthly records in gallons/month of coating used, as applied, minus water, per emission unit. Records are kept on site with units.
IV.1: Any exhaust system that serves only coating spray equipment shall be equipped with a properly installed and operating particulate control system.	✓		All exhaust systems are supplied with a properly installed and operating particulate control system.
VI.1. The permittee shall maintain records of the following information for each emission unit for each calendar month using the methods outlined in the DEQ, AQD Rule 287(c), Permit to Install Exemption Record form or an alternative format that is approved by the AQD District Supervisor. a. Volume of coating used, as applied, minus water, in gallons. b. Documentation of any filter replacements for exhaust systems serving coating spray equipment.	✓		All records are kept on site with at unit. All maintenance documented in FMS and on site with unt.
VII.1: Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A.	✓		No deviations during this reporing period.
VII.2: Semi-annual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30.	✓		The semi-annual was submitted by September 15 for the reporting period of January 1 through June 30.
VII.3: Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year.	✓		The annual certification is submitted by March 15 for the reporting period for the previous calendar year.

Notes:
CPP - Central Power Plant
DCS - CPP Distributive Control System; Stores data up to 24 hours
Delta V - Data acquisition system (has its own back up)
EHS - Occupational Safety and Environmental Health
U of M - University of Michigan
EtO - Ethylene Oxide Sterilizers
MSDS - Material Safety Data Sheet