MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

July 25, 2013

PERMIT TO INSTALL
191-12

ISSUED TO
Consumers Energy Company

LOCATED AT
10500 North Genesee Road
Mt. Morris, Michigan

IN THE COUNTY OF
Genesee

STATE REGISTRATION NUMBER
B2918

The Air Quality Division has approved this Permit to Install, pursuant to the delegation of authority from the Michigan Department of Environmental Quality. This permit is hereby issued in accordance with and subject to Section 5505(1) of Article II, Chapter I, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Pursuant to Air Pollution Control Rule 336.1201(1), this permit constitutes the permittee's authority to install the identified emission unit(s) in accordance with all administrative rules of the Department and the attached conditions. Operation of the emission unit(s) identified in this Permit to Install is allowed pursuant to Rule 336.1201(6).

DATE OF RECEIPT OF ALL INFORMATION REQUIRED BY RULE 203: **May 8, 2013**	
DATE PERMIT TO INSTALL APPROVED: **July 25, 2013**	SIGNATURE:
DATE PERMIT VOIDED:	SIGNATURE:
DATE PERMIT REVOKED:	SIGNATURE:

PERMIT TO INSTALL

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Common Abbreviations / Acronyms

Common Acronyms		Pollutant/Measurement Abbreviations	
AQD	Air Quality Division	Btu	British Thermal Unit
BACT	Best Available Control Technology	°C	Degrees Celsius
CAA	Clean Air Act	CH_4	Methane
		CO	Carbon monoxide
CEM	Continuous Emission Monitoring	dscf	Dry standard cubic foot
CFR	Code of Federal Regulations	dscm	Dry standard cubic meter
CO_2e	Carbon Dioxide Equivalent	°F	Degrees Fahrenheit
COM	Continuous Opacity Monitoring	gr	Grains
EPA	Environmental Protection Agency	Hg	Mercury
EU	Emission Unit	hr	Hour
FG	Flexible Group	H_2S	Hydrogen sulfide
GACS	Gallon of Applied Coating Solids	hp	Horsepower
GC	General Condition	lb	Pound
GHGs	Greenhouse Gases	m	Meter
HAP	Hazardous Air Pollutant	mg	Milligram
HVLP	High Volume Low Pressure *	mm	Millimeter
ID	Identification	MM	Million
LAER	Lowest Achievable Emission Rate	MW	Megawatts
MACT	Maximum Achievable Control Technology	ng	Nanogram
		NMHC	Non-methane hydrocarbons
MAERS	Michigan Air Emissions Reporting System	NO_x	Oxides of nitrogen
		N_2O	Nitrous oxide
MAP	Malfunction Abatement Plan	PM	Particulate matter
MDEQ	Michigan Department of Environmental Quality (Department)	PM10	PM with aerodynamic diameter ≤10 microns
MSDS	Material Safety Data Sheet	PM2.5	PM with aerodynamic diameter ≤2.5 microns
NESHAP	National Emission Standard for Hazardous Air Pollutants	pph	Pound per hour
NSPS	New Source Performance Standards	ppm	Parts per million
NSR	New Source Review	ppmv	Parts per million by volume
PS	Performance Specification	ppmw	Parts per million by weight
PSD	Prevention of Significant Deterioration	psia	Pounds per square inch, absolute
PTE	Permanent Total Enclosure	psig	Pounds per square inch, gauge
PTI	Permit to Install	scf	Standard cubic feet
RACT	Reasonably Available Control Technology	sec	Seconds
ROP	Renewable Operating Permit	SO_2	Sulfur dioxide
SC	Special Condition	THC	Total hydrocarbons
SCR	Selective Catalytic Reduction	tpy	Tons per year
SRN	State Registration Number	µg	Microgram
TAC	Toxic Air Contaminant	VOC	Volatile organic compounds
TEQ	Toxicity Equivalence Quotient	yr	Year
VE	Visible Emissions		

* For High Volume Low Pressure (HVLP) applicators, the pressure measured at the HVLP gun air cap shall not exceed ten (10) pounds per square inch gauge (psig).

GENERAL CONDITIONS

1. The process or process equipment covered by this permit shall not be reconstructed, relocated, or modified, unless a Permit to Install authorizing such action is issued by the Department, except to the extent such action is exempt from the Permit to Install requirements by any applicable rule. **(R 336.1201(1))**

2. If the installation, construction, reconstruction, relocation, or modification of the equipment for which this permit has been approved has not commenced within 18 months, or has been interrupted for 18 months, this permit shall become void unless otherwise authorized by the Department. Furthermore, the permittee or the designated authorized agent shall notify the Department via the Supervisor, Permit Section, Air Quality Division, Michigan Department of Environmental Quality, P.O. Box 30260, Lansing, Michigan 48909, if it is decided not to pursue the installation, construction, reconstruction, relocation, or modification of the equipment allowed by this Permit to Install. **(R 336.1201(4))**

3. If this Permit to Install is issued for a process or process equipment located at a stationary source that is not subject to the Renewable Operating Permit program requirements pursuant to R 336.1210, operation of the process or process equipment is allowed by this permit if the equipment performs in accordance with the terms and conditions of this Permit to Install. **(R 336.1201(6)(b))**

4. The Department may, after notice and opportunity for a hearing, revoke this Permit to Install if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of this permit or is violating the Department's rules or the Clean Air Act. **(R 336.1201(8), Section 5510 of Act 451, PA 1994)**

5. The terms and conditions of this Permit to Install shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by this Permit to Install. If the new owner or operator submits a written request to the Department pursuant to R 336.1219 and the Department approves the request, this permit will be amended to reflect the change of ownership or operational control. The request must include all of the information required by subrules (1)(a), (b), and (c) of R 336.1219 and shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environmental Quality. **(R 336.1219)**

6. Operation of this equipment shall not result in the emission of an air contaminant which causes injurious effects to human health or safety, animal life, plant life of significant economic value, or property, or which causes unreasonable interference with the comfortable enjoyment of life and property. **(R 336.1901)**

7. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the Department. The notice shall be provided not later than two business days after start-up, shutdown, or discovery of the abnormal condition or malfunction. Written reports, if required, must be filed with the Department within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal condition or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5). **(R 336.1912)**

8. Approval of this permit does not exempt the permittee from complying with any future applicable requirements which may be promulgated under Part 55 of 1994 PA 451, as amended or the Federal Clean Air Act.

9. Approval of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.

10. Operation of this equipment may be subject to other requirements of Part 55 of 1994 PA 451, as amended and the rules promulgated thereunder.

11. Except as provided in subrules (2) and (3) or unless the special conditions of the Permit to Install include an alternate opacity limit established pursuant to subrule (4) of R 336.1301, the permittee shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of density greater than the most stringent of the following. The grading of visible emissions shall be determined in accordance with R 336.1303. **(R 336.1301)**
    a) A six-minute average of 20 percent opacity, except for one six-minute average per hour of not more than 27 percent opacity.
    b) A visible emission limit specified by an applicable federal new source performance standard.
    c) A visible emission limit specified as a condition of this Permit to Install.

12. Collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in R 336.1370(2). **(R 336.1370)**

13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with R 336.2001 and R 336.2003, under any of the conditions listed in R 336.2001. **(R 336.2001)**

SPECIAL CONDITIONS

EMISSION UNIT SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Emission Unit ID	Emission Unit Description (Process Equipment & Control Devices)	Installation Date / Modification Date	Flexible Group ID
EUFPENGINE	A diesel fuel fired reciprocating internal combustion engine, nominal rating 315 hp, that powers a fire pump used for back up during an emergency.	To Be Determined	NA
EUAUXBOILER1	Natural gas fired auxiliary boiler rated at less than 100 MMBtu/hr.	To Be Determined	FGAUXBOILERS
EUAUXBOILER2	Natural gas fired auxiliary boiler rated at less than 100 MMBtu/hr.	To Be Determined	FGAUXBOILERS
EUFUELHTR1	A natural gas-fired heater for warming natural gas fuel.	To Be Determined	FGFUELHTRS
EUFUELHTR2	A natural gas-fired heater for warming natural gas fuel.	To Be Determined	FGFUELHTRS
EUPEAKER1	Natural gas fired simple-cycle combustion turbine driving an electrical generator (CTG).	To Be Determined	FGPEAKERS
EUPEAKER2	Natural gas fired simple-cycle combustion turbine driving an electrical generator (CTG).	To Be Determined	FGPEAKERS
EUCTGHRSG1A	Natural gas fired combustion turbine driving an electrical generator (CTG), coupled to a heat recovery steam generator (HRSG) with a natural gas fired duct burner that produces steam that drives a steam turbine electrical generator (STG) using Technology A. The HRSG is not capable of operating independently from the CTG.	To Be Determined	FGCCA
EUCTGHRSG2A	Natural gas fired CTG, coupled to a HRSG with a natural gas fired duct burner that produces steam that drives a STG using Technology A. The HRSG is not capable of operating independently from the CTG.	To Be Determined	FGCCA
EUCTGHRSG3A	Natural gas fired CTG, coupled to a HRSG with a natural gas fired duct burner that produces steam that drives a STG using Technology A. The HRSG is not capable of operating independently from the CTG.	To Be Determined	FGCCA
EUCTGHRSG4A	Natural gas fired CTG, coupled to a HRSG with a natural gas fired duct burner that produces steam that drives a STG using Technology A. The HRSG is not capable of operating independently from the CTG.	To Be Determined	FGCCA
EUCTGHRSG1B	Natural gas fired CTG, coupled to a HRSG with a natural gas fired duct burner that produces steam that drives a STG using Technology B. The HRSG is not capable of operating independently from the CTG.	To Be Determined	FGCCB

Emission Unit ID	Emission Unit Description (Process Equipment & Control Devices)	Installation Date / Modification Date	Flexible Group ID
EUCTGHRSG2B	Natural gas fired CTG, coupled to a HRSG with a natural gas fired duct burner that produces steam that drives a STG using Technology B. The HRSG is not capable of operating independently from the CTG.	To Be Determined	FGCCB
EUCTGHRSG3B	Natural gas fired CTG, coupled to a HRSG with a natural gas fired duct burner that produces steam that drives a STG using Technology B. The HRSG is not capable of operating independently from the CTG.	To Be Determined	FGCCB
EUCTGHRSG4B	Natural gas fired CTG, coupled to a HRSG with a natural gas fired duct burner that produces steam that drives a STG using Technology B. The HRSG is not capable of operating independently from the CTG.	To Be Determined	FGCCB
Changes to the equipment described in this table are subject to the requirements of R 336.1201, except as allowed by R 336.1278 to R 336.1290.			

The following conditions apply to: EUFPENGINE

DESCRIPTION: A diesel fuel fired reciprocating internal combustion engine, nominal rating 315 hp,that powers a fire pump used for back up during an emergency.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT: NA

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. NMHC + NOx	3 g/hp-hr	Test protocol will specify averaging time.	EUFPENGINE	SC V.1, SC VI.2	R 336.1205(1)(a), R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21(c) & (d), 40 CFR 60.4205
2. CO	2.6 g/hp-hr	Test protocol will specify averaging time.	EUFPENGINE	SC V.1, SC VI.2	R 336.1205(1)(a), R 336.2804, R 336.2810, 40 CFR 52.21(d)
3. PM	0.15 g/hp-hr	Test protocol will specify averaging time.	EUFPENGINE	SC V.1, SC VI.2	R 336.1205(1)(a) R 336.1224, R 336.1331(1)(c), 40 CFR 60.4205
4. PM10	0.14 lb/hr	Test protocol will specify averaging time.	EUFPENGINE	GC 13 SC VI.2	R 336.1205(1)(a) R 336.2803, R 336.2804, R 336.2810 40 CFR 52.21(c) & (d)
5. PM2.5	0.14 lb/hr	Test protocol will specify averaging time.	EUFPENGINE	GC 13 SC VI.2	R 336.1205(1)(a), R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21(c) & (d)
6. GHGs as CO_2e	15.6 tpy	12-month rolling time period as determined at the end of each calendar month	EUFPENGINE	SC VI.5	R 336.1205(1)(a), R 336.2810

The combination of the proposed daily operating restriction (6 hrs/day) and revised short term $PM_{10}/PM_{2.5}$ mass emission limit (0.14 lb/hr) results in a daily average emission rate of 0.035 lb/hr.

II. MATERIAL LIMITS

1. The permittee shall burn only ultra-low sulfur diesel fuel, in EUFPENGINE with the maximum sulfur content of 15 ppm (0.0015 percent) by weight. **(R 336.1205(1)(a), R 336.1401, 40 CFR 60.4207(b), 40 CFR 80.510)**

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall not operate EUFPENGINE for more than 6 hours per day, except during emergency conditions, and not more than100 hours per year on a 12-month rolling time period basis as determined at the end of each calendar month. **(R 336.1205(1)(a) & (3), R 336.1225, R 336.1702(a), R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**

2. The permittee may operate EUFPENGINE for no more than 100 hours per calendar year for the purpose of necessary maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Permittee may petition the Department for approval of additional hours to be used for maintenance checks and readiness testing. A petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency internal combustion engines beyond 100 hours per calendar year. EUFPENGINE may operate up to 50 hours per calendar year in non-emergency situations, but those 50 hours are counted towards the 100 hours per calendar year provided for maintenance and testing. The 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply non-emergency power as part of a financial arrangement with another entity. **(40 CFR 60.4211)**

3. If the permittee purchased a certified engine, according to procedures specified in 40 CFR Part 60 Subpart IIII, for the same model year, the permittee shall meet the following requirements for EUFPENGINE:
   a) Operate and maintain the certified engine and control device according to the manufacturer's emission-related written instructions,
   b) Keep a maintenance plan and the permittee may only change those engine settings that are permitted by the manufacturer. If you do not operate and maintain the certified engine and control device according to the manufacturer's emission-related written instructions, the engine will be considered a non-certified engine, and
   c) Meet the requirements as specified in 40 CFR 89, as it applies to you.
   (40 CFR 60.4211(a))

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

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall equip and maintain EUFPENGINE with non-resettable hours meters to track the operating hours. **(R 336.1205(1)(a) and (1)(b), R 336.1225, 40 CFR 60.4209)**

2. The nameplate capacity of EUFPENGINE shall not exceed 315 hp, as certified by the equipment manufacturer. **(R 336.1205(1)(a))**

V. TESTING/SAMPLING

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

1. The permittee shall conduct an initial performance test for EUFPENGINE within one year after startup of the engine to demonstrate compliance with the emission limits in 40 CFR 60.4205 unless the engine has been certified by the manufacturer and the permittee maintains the engine as required by 40 CFR Part 60 Subpart IIII. If a performance test is required, the performance tests shall be conducted according to 40 CFR 60.4212. No less than 30 days prior to testing, a complete test plan shall be submitted to the AQD. The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(40 CFR 60.4211, 40 CFR 60.4212, 40 CFR Part 60 Subpart IIII)**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3), R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205, R 336.2810)**

2. The permittee shall keep, in a satisfactory manner, a record of testing required in SC V.1 or manufacturer certification documentation indicating that EUFPENGINE meets the applicable emission limitations contained in the federal Standards of Performance for New Stationary Sources 40 CFR Part 60 Subpart IIII. The permittee shall keep all records on file and make them available to the Department upon request. **(40 CFR 60.4211)**

3. The permittee shall monitor and record the hours of operation of EUFPENGINE during emergencies and non-emergencies, on a daily, monthly and 12-month rolling time period basis, in a manner acceptable to the AQD District Supervisor. The permittee shall record the time of operation of EUFPENGINE and the reason it was in operation during that time. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205(1)(a), 40 CFR 60.4211, 40 CFR 60.4214)**

4. The permittee shall keep, in a satisfactory manner, fuel supplier certification records or fuel sample test data, for each delivery of diesel fuel oil used in EUFPENGINE, demonstrating that the fuel sulfur content meets the requirement of 40 CFR 80.510. The certification or test data shall include the name of the oil supplier or laboratory, and the maximum sulfur content of the fuel oil. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205(1)(a), R 336.1402(1), 40 CFR 80.510)**

5. The permittee shall keep, in a satisfactory manner, 12-month rolling total CO_2e mass emission records for EUFPENGINE in order to demonstrate compliance with SC I.6. The permittee shall keep all records on file and make them available to the Department upon request. The calculations shall be performed as follows or according to an alternate method approved by the District Supervisor. **(R 336.1205(1)(a), R 336.2810)**

CO_2e emissions (tons/month) = [(Fuel Usage (gal/month) x Heat Content (mmbtu/gal)) x (CO_2 EF (lb/mmbtu) x CO_2 GWP + CH_4 EF (lb/mmbtu) x CH_4 GWP + N_2O EF (lb/mmbtu) x N_2O GWP)] x 1/2000 (ton/lb)

Where:
Fuel Usage (gal/month) = monthly fuel usage data from company records
Heat Content (mmbtu/gal) = standard value in AP-42 for diesel fuel or supplier data, if available
CO_2 EF (lb/mmbtu) = emission factor from GHG Mandatory Reporting Rule (MRR) (40 CFR 98, Subpart C, December 17, 2010) for diesel fuel
CH_4 EF (lb/mmbtu) = emission factor from GHG MRR (40 CFR 98, Subpart C, December 17, 2010) for diesel fuel
N_2O EF (lb/mmbtu) = emission factor from GHG MRR (40 CFR 98, Subpart C, December 17, 2010) for diesel fuel
CO_2 GWP = global warming potential from GHG MRR (40 CFR 98, Subpart A, October 30, 2009)
CH_4 GWP = global warming potential from GHG MRR (40 CFR 98, Subpart A, October 30, 2009)
N_2O GWP = global warming potential from GHG MRR (40 CFR 98, Subpart A, October 30, 2009)

VII. REPORTING

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

VIII. STACK/VENT RESTRICTIONS

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVFPENGINE	14*	20	R 336.1225, R 336.2803, R 336.2804 40 CFR 52.21 (c) & (d))

* The maximum diameter applies to the exhaust stack itself, and does not apply to any no-loss rain sleeve that may be in use.

IX. OTHER REQUIREMENTS

1. The permittee shall comply with all provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60 Subparts A and IIII, as they apply to EUFPENGINE. **(40 CFR Part 60 Subparts A and IIII, 40 CFR 63.6590)**

2. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR, Part 63, Subpart A and Subpart ZZZZ, for Stationary Reciprocating Internal Combustion Engines, upon start-up. **(40 CFR Part 63, Subparts A and ZZZZ)**

FLEXIBLE GROUP SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGAUXBOILERS	Two natural gas fired auxiliary boilers, which are each rated at less than 100 MMBtu/hr heat input.	EUAUXBOILER1, EUAUXBOILER2
FGFUELHTRS	Two natural gas-fired heaters for warming natural gas fuel.	EUFUELHTR1, EUFUELHTR2
FGPEAKERS	Two natural gas fired simple-cycle combustion turbines each driving an electrical generator.	EUPEAKER1, EUPEAKER2
FGCCA	Four natural gas fired CTGs and HRSGs with duct burner firing capability operating in combined-cycle mode using Technology A.	EUCTGHRSG1A, EUCTGHRSG2A, EUCTGHRSG3A, EUCTGHRSG4A
FGCCB	Four natural gas fired CTGs and HRSGs with duct burner firing capability operating in combined-cycle mode using Technology B.	EUCTGHRSG1B, EUCTGHRSG2B, EUCTGHRSG3B, EUCTGHRSG4B

The following conditions apply to: FGAUXBOILERS

DESCRIPTION

Two natural gas fired auxiliary boilers, which are each rated at less than 100 MMBtu/hr heat input.

Emission Units: EUAUXBOILER1, EUAUXBOILER2

POLLUTION CONTROL EQUIPMENT

Each emission unit has Low NOx Burners and Flue Gas Recirculation for NOx control.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NOx	0.05 lb/MMBtu heat input (applied on a per unit basis)	Test protocol will specify averaging time.	EUAUXBOILER1, EUAUXBOILER2	SC V.1	R 336.1205(1)(a), R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21(c) & (d)
2. CO	0.075 lb/MMBtu heat input (applied on a per unit basis)	Test protocol will specify averaging time.	EUAUXBOILER1, EUAUXBOILER2	SC V.1	R 336.1205(1)(a), R 336.2804 R 336.2810, 40 CFR 52.21(d)
3. PM	0.0018 lb/MMBtu heat input (applied on a per unit basis)	Test protocol will specify averaging time.	EUAUXBOILER1, EUAUXBOILER2	GC 13	R 336.1205(1)(a), R 336.2810, R 336.1331(1)(c)
4. PM10	0.007 lb/MMBtu heat input (applied on a per unit basis)	Test protocol will specify averaging time.	EUAUXBOILER1, EUAUXBOILER2	SC V.1	R 336.1205(1)(a), R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21(c) & (d)
5. PM2.5	0.007 lb/MMBtu heat input (applied on a per unit basis)	Test protocol will specify averaging time.	EUAUXBOILER1, EUAUXBOILER2	SC V.1	R 336.1205(1)(a), R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21(c) & (d)
6. VOC	0.008 lb/MMBtu heat input (applied on a per unit basis)	Test protocol will specify averaging time.	EUAUXBOILER1, EUAUXBOILER2	SC V.1	R 336.1205(1)(a), R 336.2804, R 336.2810, 40 CFR 52.21(d)
7. GHGs as CO_2e	24,304 tpy (applied on a per unit basis)	12-month rolling time period as determined at the end of each calendar month	EUAUXBOILER1, EUAUXBOILER2	SC VI.2 SC VI.3	R 336.1205(1)(a), R 336.2810

II. MATERIAL LIMIT(S)

1. The permittee shall only combust pipeline quality natural gas in FGAUXBOILERS. **(R 336.1205(1)(a), R 336.1401, R 336.1702(a), 40 CFR 63.11195(e))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. Permittee shall not use more than 416.3 MMscf of natural gas in each boiler, EUAUXBOILER1 and EUAUXBOILER2, per 12-month rolling time period as determined at the end of each calendar month. **(R 336.1205(1)(a)(ii)(D), R 336.2810)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The maximum design heat input capacity for each boiler, EUAUXBOILER1 and EUAUXBOILER2, shall not exceed 99.9 MMBtu per hour on a fuel heat input basis. **(R 336.1205(1)(a) and (1)(b), R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d), 40 CFR Part 60, Subpart Dc)**

2. The permittee shall not operate EUAUXBOILER1 or EUAUXBOILER2 unless the respective low-NOx burners and flue gas recirculation systems are installed, maintained, and operated in a satisfactory manner. (**R 336.1205(1)(a), R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21(c) & (d))**

V. TESTING/SAMPLING

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

1. Within 180 days after commencement of initial start-up, verification of NO_X, CO, PM10, PM2.5, and VOC emission rates from EUAUXBOILER1 and EUAUXBOILER2 at maximum routine operating conditions, by testing at owner's expense, in accordance with Department requirements, will be required. The permittee shall complete the NO_x and CO testing once every five years, thereafter, unless an alternate testing schedule is approved by the District Supervisor. No less than 60 days prior to testing, a complete test plan shall be submitted to the AQD. The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(R 336.2001, R 336.2003, R 336.2004, R 336.2810, R 336.2803, R 336.2804)**

2. The permittee may request the AQD District Supervisor allow testing of only one of EUAUXBOILER1 and EUAUXBOILER2 if it can be demonstrated that the units are identical. The units will presumptively be considered identical if they are of the same size (based on maximum rated hourly heat input), manufacturer and model, and have the same history of modifications, if any (e.g., have the same controls installed, the same types of burners and have undergone major overhauls at the same frequency (based on hours of operation)). **(R 336.2001, R 336.2003, R 336.2004)**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205, R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21(c) & (d))**

2. The permittee shall install, calibrate, maintain and operate in a satisfactory manner devices to monitor and record the fuel usage rates for EUAUXBOILER1 and EUAUXBOILER2 on a continuous basis. **(R 336.1205(1)(a), R 336.2810, 40 CFR 60.48c(g))**

3. The permittee shall keep, in a satisfactory manner, records of monthly and 12-month rolling total CO_2e mass emission records for each boiler EUAUXBOILER1 and EUAUXBOILER2, as required by SC I.7. The permittee shall keep all records on file and make them available to the Department upon request. The calculations shall be performed as follows or according to an alternate method approved by the District Supervisor. **(R 336.1205(1)(a), R 336.2810)**

CO_2e emissions (tons/month) = [(Fuel Usage (mmscf/month) x Higher Heating Value (mmbtu/mmscf)) x (CO_2 EF (lb/mmbtu) x CO_2 GWP + CH_4 EF (lb/mmbtu) x CH_4 GWP + N_2O EF (lb/mmbtu) x N_2O GWP)] x 1/2000 (ton/lb)

Where:
Fuel Usage (mmscf/month) = monthly fuel usage data from fuel flow meter
Heat Content (mmbtu/mmscf) = standard value in AP-42 for natural gas or supplier data, if available
CO_2 EF (lb/mmbtu) = emission factor from GHG Mandatory Reporting Rule (MRR) (40 CFR 98, Subpart C, December 17, 2010) for natural gas
CH_4 EF (lb/mmbtu) = emission factor from GHG MRR (40 CFR 98, Subpart C, December 17, 2010) for natural gas
N_2O EF (lb/mmbtu) = emission factor from GHG MRR (40 CFR 98, Subpart C, December 17, 2010) for natural gas
CO_2 GWP = global warming potential from GHG MRR (40 CFR 98, Subpart A, October 30, 2009)
CH_4 GWP = global warming potential from GHG MRR (40 CFR 98, Subpart A, October 30, 2009)
N_2O GWP = global warming potential from GHG MRR (40 CFR 98, Subpart A, October 30, 2009)

4. The permittee shall maintain records of all information necessary for all notifications and reports as specified in these special conditions as well as that information necessary to demonstrate compliance with the emission limits of this permit. This information shall include, but shall not be limited to the following:
   a. Compliance tests and any testing required under the special conditions of this permit;
   b. Monitoring data;
   c. Verification of heat input capacity required to show compliance with SC IV.1;
   d. Amounts of fuel combusted in each boiler, EUAUXBOILER1 and EUAUXBOILER2, on a calendar month basis;
   e. All records required by 40 CFR 60.7 and 60.48c;
   f. All calculations necessary to show compliance with the limits contained in this permit.

   All of the above information shall be stored in a format acceptable to the Air Quality Division and shall be consistent with the requirements of 40 CFR 60.7(f). **(R 336.1205(1)(a), R 336.1224, R 336.1225, R 336.1301, R 336.1912, R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21(c) & (d))**

VII. REPORTING

1. The permittee shall provide written notification of the date construction commences and actual start-up of each boiler, EUAUXBOILER1 and EUAUXBOILER2, in accordance with 40 CFR 60.7. The notification shall include the design heat input, an identification of the fuels to be combusted and the annual capacity factor for each boiler, EUAUXBOILER1 and EUAUXBOILER2. The permittee shall submit this notification to the AQD District Supervisor within the time frames specified in 40 CFR 60.7. **(40 CFR 60.7)**

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVAUXBOILER1	48	150	R 336.1225, R 336.2803, R 336.2804 40 CFR 52.21(c) & (d)
2. SVAUXBOILER2	48	150	R 336.1225, R 336.2803, R 336.2804 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENT(S)

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

The following conditions apply to: FGFUELHTRS

DESCRIPTION

FGFUELHTRS consist of two natural gas-fired heaters for warming natural gas fuel.

Emission Units: EUFUELHTR1, EUFUELHTR2

POLLUTION CONTROL EQUIPMENT

Each emission unit has Low NOx Burners or comparable technology (i.e., catalytic combustion) for NOx control

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NOx	0.06 lb/MMBtu heat input (applied on a per unit basis)	30-day rolling average as determined each day the boiler operates	EUFUELHTR1, EUFUELHTR2	GC 13	R 336.1205(1)(a) R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21(c) & (d)
2. CO	0.11 lb/MMBtu heat input (applied on a per unit basis)	Test protocol will specify averaging time.	EUFUELHTR1, EUFUELHTR2	GC 13	R 336.1205(1)(a) R 336.2804, R 336.2810, 40 CFR 52.21(d)
3. PM	0.0018 lb/MMBtu heat input (applied on a per unit basis)	Test protocol will specify averaging time.	EUFUELHTR1, EUFUELHTR2	GC 13	R 336.1205(1)(a) R 336.2810, R 336.1331(1)(c)
4. PM10	0.007 lb/MMBtu heat input (applied on a per unit basis)	Test protocol will specify averaging time	EUFUELHTR1, EUFUELHTR2	GC 13	R 336.1205(1)(a), R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21(c) & (d)
5. PM2.5	0.007 lb/MMBtu heat input (applied on a per unit basis)	Test protocol will specify averaging time	EUFUELHTR1, EUFUELHTR2	GC 13	R 336.1205(1)(a), R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21(c) & (d)
6. VOC	0.008 lb/MMBtu heat input (applied on a per unit basis)	Test protocol will specify averaging time.	EUFUELHTR1, EUFUELHTR2	GC 13	R 336.1205(1)(a), R 336.2804, R 336.2810, 40 CFR 52.21(d)
7. GHGs as CO_2e	6,156 tpy (applied on a per unit basis)	12-month rolling time period as determined at the end of each calendar month	EUFUELHTR1, EUFUELHTR2	SC VI.2	R 336.1205(1)(a), R 336.2810

II. MATERIAL LIMIT(S)

1. The permittee shall only combust pipeline quality natural gas in FGFUELHTRS. **(R 336.1205(1)(a), R 336.1401, R 336.1702(a), 40 CFR 60.42c, 40 CFR 63.11195(e))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The maximum design heat input capacity for each heater, EUFUELHTR1 and EUFUELHTR2, shall not exceed 12 MMBtu per hour on a fuel heat input basis. **(R 336.1205(1)(a), R 336.2803, R 336.2804, 40 CFR 60 Subpart Dc, 40 CFR 52.21(c) and (d))**

2. The permittee shall not operate EUFUELHTR1 or EUFUELHTR2 unless the respective NOx emission control equipment, either low-NOx burners or comparable technology (i.e., catalytic combustion) is installed, maintained, and operated in a satisfactory manner. **(R 336.1205(1)(a), R 336.2803, R 336.2804, R 336.2810)**

V. TESTING/SAMPLING

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

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205, R 336.2803, R 336.2804)**

2. The permittee shall keep, in a satisfactory manner, records of monthly and 12-month rolling total CO_2e mass emission records for each heater, EUFUELHTR1 and EUFUELHTR2, as required by SC I.7. The permittee shall keep all records on file and make them available to the Department upon request. The calculations shall be performed as follows or according to an alternate method approved by the District Supervisor. **(R 336.1205(1)(a), R 336.2810)**

   CO_2e emissions (tons/month) = [(Fuel Usage (mmscf/month) x Higher Heating Value (mmbtu/mmscf)) x (CO_2 EF (lb/mmbtu) x CO_2 GWP + CH_4 EF (lb/mmbtu) x CH_4 GWP + N_2O EF (lb/mmbtu) x N_2O GWP)] x 1/2000 (ton/lb)

   Where:
   Fuel Usage (mmscf/month) = monthly fuel usage data from fuel flow meter
   Heat Content (mmbtu/mmscf) = standard value in AP-42 for natural gas or supplier data, if available
   CO_2 EF (lb/mmbtu) = emission factor from GHG Mandatory Reporting Rule (MRR) (40 CFR 98, Subpart C, December 17, 2010) for natural gas
   CH_4 EF (lb/mmbtu) = emission factor from GHG MRR (40 CFR 98, Subpart C, December 17, 2010) for natural gas
   N_2O EF (lb/mmbtu) = emission factor from GHG MRR (40 CFR 98, Subpart C, December 17, 2010) for natural gas
   CO_2 GWP = global warming potential from GHG MRR (40 CFR 98, Subpart A, October 30, 2009)
   CH_4 GWP = global warming potential from GHG MRR (40 CFR 98, Subpart A, October 30, 2009)
   N_2O GWP = global warming potential from GHG MRR (40 CFR 98, Subpart A, October 30, 2009)

3. The permittee shall maintain records of all information necessary for all notifications and reports as specified in these special conditions as well as that information necessary to demonstrate compliance with the emission limits of this permit. This information shall include, but shall not be limited to the following:
   a. Compliance tests and any testing required under the general conditions of this permit;
   b. Monitoring data;
   c. Verification of heat input capacity required to show compliance with SC IV.1;
   d. Amounts of fuel combusted in each heater, EUFUELHTR1 and EUFUELHTR2, on a calendar month basis;
   e. All records required by 40 CFR 60.7 and 60.48c;
   f. All calculations necessary to show compliance with the limits contained in this permit.

   All of the above information shall be stored in a format acceptable to the Air Quality Division and shall be consistent with the requirements of 40 CFR 60.7(f). **(R 336.1205(1)(a), R 336.1224, R 336.1225, R 336.1301, R 336.1912, R 336.2803, R 336.2804, R 336.2810, 40 CFR 60.7(f))**

VII. REPORTING

1. The permittee shall provide written notification of the date construction commences and actual start-up for each heater, EUFUELHTR1 and EUFUELHTR2, in accordance with 40 CFR 60.7 and 60.48c. The notification shall include the design heat input, an identification of the fuels to be combusted and the annual capacity factor for each heater, EUFUELHTR1 and EUFUELHTR2. The permittee shall submit this notification to the AQD District Supervisor within the time frames specified in 40 CFR 60.7. **(40 CFR 60.7, 40 CFR 60.48c)**

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVFUELHTR1	24	20	R 336.1225, R 336.2803, R 336.2804 40 CFR 52.21(c) & (d)
2. SVFUELHTR2	24	20	R 336.1225, R 336.2803, R 336.2804 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENT(S)

1. **T**he permittee shall comply with all provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60, Subparts A and Dc, as they apply to EUFUELHTR1 and EUFUELHTR2. **(40 CFR Part 60, Subparts A and Dc)**

The following conditions apply to: FGPEAKERS

DESCRIPTION

FGPEAKERS consist of two natural gas fired simple-cycle combustion turbines each with an electrical generator.

Emission Units: EUPEAKER1, EUPEAKER2

POLLUTION CONTROL EQUIPMENT

Dry low-NOx combustors for NOx control.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NOx	0.09 lb/MMBtu heat input (applied on a per unit basis), except during periods of start-up and shutdown[1]	Test protocol will specify averaging time	EUPEAKER1, EUPEAKER2	SC V.1 SC VI.2	R 336.1205(1)(a), R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21(c) & (d), 40 CFR 60.4320(a)
2. CO	0.11 lb/MMBtu heat input (applied on a per unit basis)	Test protocol will specify averaging time	EUPEAKER1, EUPEAKER2	SC V.2	R 336.1205(1)(a), R 336.2804, R 336.2810, 40 CFR 52.21(d)
3. PM	0.01 lb/MMBTU heat input (applied on a per unit basis)	Test protocol will specify averaging time.	EUPEAKER1, EUPEAKER2	SC V.2	R 336.1205(1)(a), R 336.1331(1)(c), R 336.2810
4. PM10	0.02 lb/MMBtu heat input (applied on a per unit basis)	protocol will specify averaging time	EUPEAKER1, EUPEAKER2	SC V.2	R 336.1205(1)(a), R 336.2803, R 336.2804,R 336.2810, 40 CFR 52.21 (c) & (d)
5. PM2.5	0.02 lb/MMBtu heat input (applied on a per unit basis)	protocol will specify averaging time	EUPEAKER1, EUPEAKER2	SC V.2	R 336.1205(1)(a), R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21 (c) & (d)
6. VOC	0.017 lb/MMBtu heat input (applied on a per unit basis)	Test protocol will specify averaging time	EUPEAKER1, EUPEAKER2	SC V.2	R 336.1205(1)(a), R336.2804, R 336.2810, 40 CFR 52.21(d)
7. GHGs as CO_2e	20,141 tpy (applied on a per unit basis)	12-month rolling time period as determined at the end of each calendar month	EUPEAKER1, EUPEAKER2	SC VI.3, SC VI.5	R 336.1205(1)(a), R 336.2810

1. Equivalent to 25 ppmv at 15% O_2

II. MATERIAL LIMIT(S)

1. The permittee shall only combust pipeline quality natural gas in FGPEAKERS. **(R 336.1205(1)(a), R 336.1401, R 336.1702(a), 40 CFR 60.4330)**

2. Permittee shall not use more than 343 MMscf of natural gas in each turbine, EUPEAKER1 and EUPEAKER2, per 12-month rolling time period as determined at the end of each calendar month. **(R 336.1205(1)(a)(ii)(D), R 336.2810)**

3. Permittee shall not use more than 5.15 MMscf of natural gas in FGPEAKERS per calendar day. **(R 336.2803)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate FGPEAKERS unless a malfunction abatement plan (MAP) as described in Rule 911(2), has been submitted within 180 days of initial start-up, and is implemented and maintained. The MAP shall, at a minimum, specify the following:
   a. A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.

   b. An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.

   c. A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.

   d. Identification of the source, and operating variables and ranges for varying loads, shall be monitored and recorded. The normal operating range of these variables and a description of the method of monitoring shall be 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. **(R 336.1911)**

2. The permittee shall not operate FGPEAKERS unless the AQD District Supervisor has approved a plan that describes how emissions will be minimized during start-up and shutdown. The plan shall incorporate procedures recommended by the equipment manufacturer as well as incorporating standard industry practices. Unless notified by the AQD District Supervisor within 30 business days after plan submittal, the plan shall be deemed approved. **(R 336.1911, R 336.1912)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The maximum design heat input capacity for each turbine, EUPEAKER1 and EUPEAKER2, shall not exceed 171 MMBtu per hour on a fuel heat input basis. **(R 336.1205(1)(a), R336.2803, R 336.2804, 40 CFR 52.21(c) & (d))**

2. The permittee shall not operate EUPEAKER1 or EUPEAKER2 unless the respective dry low-NOx burners are installed, maintained, and operated in a satisfactory manner. **(R 336.1205(1)(a), R 336.2803, R 336.2804, R 336.2810)**

V. TESTING/SAMPLING

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

1. Within 60 days after achieving the maximum production rate, but no later than 180 days after commencement of initial start-up, verification of NO_X emission rates and mass emissions from each turbine, EUPEAKER1 and EUPEAKER2, at 50%, 75% and 100% loads or other loads as approved by AQD, by testing at owner's expense, in accordance with Department requirements, will be required. The permittee shall complete the testing once every five years, thereafter, unless an alternate testing schedule is approved by the District Supervisor. No less than 60 days prior to testing, a complete test plan shall be submitted to the AQD Permit Section Supervisor and the Technical Programs Unit (TPU) Supervisor. The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(R 336.2001, R 336.2003, R 336.2004, 40 CFR 60.4400)**

2. Within 180 days after achieving the maximum production rate, but no later than 12 months after commencement of initial start-up, verification of CO, PM, PM10, PM2.5, and VOC emission rates from each turbine, EUPEAKER1 and EUPEAKER2, at maximum routine operating conditions, by testing at owner's expense, in accordance with Department requirements, will be required. The permittee must complete the testing once every five years, thereafter, unless an alternate testing schedule is approved by the District Supervisor. No less than 60 days prior to testing, a complete test plan shall be submitted to the AQD Permit Section Supervisor and the TPU Supervisor. The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(R 336.1331, R 336.2001, R 336.2003, R 336.2004)**

3. The permittee may request the AQD District Supervisor allow testing of only one of EUPEAKER1 and EUPEAKER2 if it can be demonstrated that the units are identical. The units will presumptively be considered identical if they are of the same size (based on maximum rated hourly heat input), manufacturer and model, and have the same history of modifications, if any (e.g., have the same controls installed, the same types of burners and have undergone major overhauls at the same frequency (based on hours of operation)). **(R 336.2001, R 336.2003, R 336.2004)**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205, R 336.2803, R 336.2804)**

2. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device (or devices) to monitor and record appropriate parameters to determine whether EUPEAKER1 and EUPEAKER2 are operating in low-NOx mode. **(R 336.1205(1)(a), R 336.2803, R 336.2804, 40 CFR 60.4345)**

3. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the fuel flow rate from each turbine, EUPEAKER1 and EUPEAKER2, on a continuous basis. The monitor shall be operated in accordance with 40 CFR 60.4345(c). **(R 336.1205(1)(a), R 336.2803, R 336.2804, 40 CFR 60.4345)**

4. The permittee shall keep, in a satisfactory manner, hourly and 4-hour rolling averages for those parameters indicative of operating in low-NOx mode for EUPEAKER1 and EUPEAKER2. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205(1)(a), R 336.2803, R 336.2804, 40 CFR 60.4380)**

5. The permittee shall keep, in a satisfactory manner, records of monthly and 12-month rolling total CO_2e mass emission records for each turbine, EUPEAKER1 and EUPEAKER2, as required by SC I.7. The permittee shall keep all records on file and make them available to the Department upon request. The calculations shall be performed as follows or according to an alternate method approved by the District Supervisor. **(R 336.1205(1)(a), R 336.2810)**

CO_2e emissions (tons/month) = [(Fuel Usage (mmscf/month) x Higher Heating Value (mmbtu/mmscf)) x (CO_2 EF (lb/mmbtu) x CO_2 GWP + CH_4 EF (lb/mmbtu) x CH_4 GWP + N_2O EF (lb/mmbtu) x N_2O GWP)] x 1/2000 (ton/lb)

Where:
Fuel Usage (mmscf/month) = monthly fuel usage data from fuel flow meter
Heat Content (mmbtu/mmscf) = standard value in AP-42 for natural gas or supplier data, if available
CO_2 EF (lb/mmbtu) = emission factor from GHG Mandatory Reporting Rule (MRR) (40 CFR 98, Subpart C, December 17, 2010) for natural gas
CH_4 EF (lb/mmbtu) = emission factor from GHG MRR (40 CFR 98, Subpart C, December 17, 2010) for natural gas
N_2O EF (lb/mmbtu) = emission factor from GHG MRR (40 CFR 98, Subpart C, December 17, 2010) for natural gas
CO_2 GWP = global warming potential from GHG MRR (40 CFR 98, Subpart A, October 30, 2009)
CH_4 GWP = global warming potential from GHG MRR (40 CFR 98, Subpart A, October 30, 2009)
N_2O GWP = global warming potential from GHG MRR (40 CFR 98, Subpart A, October 30, 2009)

6. The permittee shall maintain records of all information necessary for all notifications and reports as specified in these special conditions as well as that information necessary to demonstrate compliance with the emission limits of this permit. This information shall include, but shall not be limited to the following:

a. Compliance tests and any testing required under the special conditions of this permit;
b. Monitoring data;
c. Total sulfur content of the natural gas as required by 40 CFR 60.4365(a);
d. Verification of heat input capacity required to show compliance with SC IV.1;
e. Amounts of fuel combusted in each turbine, EUPEAKER1 and EUPEAKER2, on a calendar month basis;
f. All records required by 40 CFR 60.7;
g. All calculations necessary to show compliance with the limits contained in this permit.

All of the above information shall be stored in a format acceptable to the Air Quality Division and shall be consistent with the requirements of 40 CFR 60.7(f). **(R 336.1205(1)(a), R 336.1224, R 336.1225, R 336.1301, R 336.1331, R 336.1702(a), R 336.1912, R 336.2803, R 336.2804, 40 CFR 60.7(f))**

VII. REPORTING

1. Within 30 days after completion of the installation, construction, reconstruction, relocation, or modification authorized by this Permit to Install, the permittee or the authorized agent pursuant to Rule 204, shall notify the AQD District Supervisor, in writing, of the completion of the activity. Completion of the installation, construction, reconstruction, relocation, or modification is considered to occur not later than commencement of initial start-up of EUPEAKER1 and EUPEAKER2. **(R 336.1201(7)(a))**

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVPEAKER	108	150	R 336.1225, R 336.2803, R 336.2804 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENT(S)

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

2. The permittee shall not operate FGPEAKERS simultaneously with FGCOMBUSTURBS1-9 covered by MI-ROP-B2918-2010a, except during emergency grid restoration efforts. **(R 336.1205, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))**

The following conditions apply to: FGCCA

DESCRIPTION

FGCCA consists of four natural gas fired CTGs operating in combined-cycle mode using Technology A. CTGs and HRSGs 1 and 2 will drive one steam turbine electrical generator (STG). CTGs and HRSGs 3 and 4 will drive a second STG.

Emission Units: EUCTGHRSG1A, EUCTGHRSG2A, EUCTGHRSG3A, EUCTGHRSG4A

POLLUTION CONTROL EQUIPMENT

Each emission unit has dry low-NOx combustors (CTGs and HRSG with duct burners) and selective catalytic reduction for NO_X control and oxidation catalyst for CO and VOC control inside the HRSGs.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NOx	3 ppmv dry at 15% oxygen, (applied on a per unit basis), except during startup and shutdown	24-hour rolling average as determined each hour the turbine operates	EUCTGHRSG1A, EUCTGHRSG2A, EUCTGHRSG3A, EUCTGHRSG4A	SC V.1, SC VI.2, SC VI.5	R 336.1205(1)(a), 40 CFR 60.4320(a), R 336.2810,
2. NOx	760 pph (applied on a per block basis)	1-hour average	Each CTG/HRSG pair (2x1 Block): EUCTGHRSG1A plus EUCTGHRSG2A combined and EUCTGHRSG3A plus EUCTGHRSG4A combined	SC VI.2, SC VI.4, SC VI.6	R 336.1205(1)(a), R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)
3. NO_X	78.4 tpy (applied on a per block basis)	12-month rolling time period for startup and shutdown events	Each CTG/HRSG pair (2x1 Block): EUCTGHRSG1A plus EUCTGHRSG2A combined and EUCTGHRSG3A plus EUCTGHRSG4A combined	SC VI.2, SC VI.4, SC VI.8	R 336.1205(1)(a), R 336.2810
4. CO	4 ppmv dry at 15% oxygen, (applied on a per unit basis) except during startup and shutdown,	24-hour rolling average as determined each hour the turbine operates	EUCTGHRSG1A, EUCTGHRSG2A, EUCTGHRSG3A, EUCTGHRSG4A	SC VI.3 SC VI.5	R 336.1205(1)(a), R 336.2804, R 336.2810, , 40 CFR 52.21(d)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
5. CO	3,159 pph (applied on a per block basis)	4-hour rolling average as determined each hour the turbine operates	Each CTG/HRSG pair (2x1 Block): EUCTGHRSG1A plus EUCTGHRSG2A combined and EUCTGHRSG3A plus EUCTGHRSG4A combined	SC VI.3, SC VI.4, SC VI.7	R 336.1205(1)(a), R 336.2804, 40 CFR 52.21(d)
6. CO	694 tpy (applied on a per block basis)	12-month rolling time period for startup and shutdown events	Each CTG/HRSG pair (2x1 Block): EUCTGHRSG1A plus EUCTGHRSG2A combined and EUCTGHRSG3A plus EUCTGHRSG4A combined	SC VI.3 SC VI.4 SC VI.8	R 336.1205(1)(a), R 336.2810
7. PM	0.0033 lb/MMBtu heat input (applied on a per unit basis)	Test protocol will specify averaging time	EUCTGHRSG1A, EUCTGHRSG2A, EUCTGHRSG3A, EUCTGHRSG4A	SC V.2	R 336.1205(1)(a), R 336.2810, R 336.1331(c)
8. PM10	0.0066 lb/MMBtu heat input (applied on a per unit basis)	Test protocol will specify averaging time	EUCTGHRSG1A, EUCTGHRSG2A, EUCTGHRSG3A, EUCTGHRSG4A	SC V.2	R 336.1205(1)(a), R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21(c) & (d)
9. PM2.5	0.0066 lb/MMBtu heat input (applied on a per unit basis)	Test protocol will specify averaging time	EUCTGHRSG1A, EUCTGHRSG2A, EUCTGHRSG3A, EUCTGHRSG4A	SC V.2	R 336.1205(1)(a), R 336.2803, R 336.2804, R 336.2810, 40 CFR 52.21(c) & (d)
10. VOC	0.0042 lb/MMBtu heat input (applied on a per unit basis)	Test protocol will specify averaging time	EUCTGHRSG1A, EUCTGHRSG2A, EUCTGHRSG3A, EUCTGHRSG4A	SC V.2	R 336.1205(1)(a), R 336.2804, R 336.2810, R 336.1702, 40 CFR 52.21(d)
11. GHGs as CO_2e	1,334,965 tpy (applied on a per unit basis)	12-month rolling time period as determined at the end of each calendar month	EUCTGHRSG1A, EUCTGHRSG2A, EUCTGHRSG3A, EUCTGHRSG4A	SC VI.4, SC VI.9	R 336.1205(1)(a), R 336.2810

II. MATERIAL LIMIT(S)

1. The permittee shall only combust pipeline quality natural gas in FGCCA. **(R 336.1205(1)(a), R 336.1401, R 336.1702(a), 40 CFR 60.4330)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EUCTGHRSG1A, EUCTGHRSG2A, EUCTGHRSG3A or EUCTGHRSG4A unless a malfunction abatement plan (MAP) as described in Rule 911(2), has been submitted within 180 days of initial start-up, and is implemented and maintained. The MAP shall, at a minimum, specify the following:
   a. A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.

   b. An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.

   c. A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.

   d. Identification of the source, and operating variables and ranges for varying loads, shall be monitored and recorded. The normal operating range of these variables and a description of the method of monitoring shall be 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. **(R 336.1911)**

2. The permittee shall not operate EUCTGHRSG1A, EUCTGHRSG2A, EUCTGHRSG3A or EUCTGHRSG4A unless the AQD District Supervisor has approved a plan that describes how emissions will be minimized during start-up and shutdown. The plan shall incorporate procedures recommended by the equipment manufacturer as well as incorporating standard industry practices. Unless notified by the AQD District Supervisor within 30 business days after plan submittal, the plan shall be deemed approved. **(R 336.1911, R 336.1912)**

3. Start-up is defined as the period of time from initiation of combustion turbine firing until each combustion turbine reaches 118 megawatts gross output (i.e. minimum of 50% of the maximum design capacity). Shutdown is defined as that period of time from the initial lowering of the CTG output below 118 gross megawatts (i.e. 50% of the maximum design capacity), with the intent to shutdown, until the point at which the combustion process has stopped **(R 336.2803, R 336.2804, R 336.2810)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The maximum design heat input capacity for each CTG/HRSG, EUCTGHRSG1A, EUCTGHRSG2A, EUCTGHRSG3A, and EUCTGHRSG4A, shall not exceed 2,587 MMBtu per hour on a fuel heat input basis. This includes the combined fuel heat input for both the CTG and HRSG with duct burner. **(R 336.1205(1)(a) and (1)(b). R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))**

2. Permittee shall not operate EUCTGHRSG1A, EUCTGHRSG2A, EUCTGHRSG3A or EUCTGHRSG4A unless the selective catalytic reduction for NO_X control and the oxidation catalyst for CO control have been installed, maintained, and operated in a satisfactory manner. Satisfactory manner includes operating and maintaining each control device in accordance with an approved MAP for EUCTGHRSG1A, EUCTGHRSG2A, EUCTGHRSG3A and EUCTGHRSG4A as required in Process/Operational Restriction SC III.1. **(R 336.1205, R 336.2803, R 336.2804, R 336.2810)**

3. The net heat rate for each CTG/HRSG pair (2x1 Block), EUCTGHRSG1A plus EUCTGHRSG2A combined or EUCTGHRSG3A plus EUCTGHRSG4A combined, shall not exceed 7,460 Btu/kW-hr (HHV-net) at the following reference conditions: ambient temperature of 59°F, 60% relative humidity, ambient pressure at the mean site elevation, baseload operation without duct firing, and not accounting for transformer losses. **(R 336.1205, R 336.2810)**

V. TESTING/SAMPLING

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

1. Within 60 days after achieving the maximum production rate, but no later than 180 days after commencement of initial start-up, verification of NO_X emission rates from each CTG/HRSG, EUCTGHRSG1A, EUCTGHRSG2A, EUCTGHRSG3A, and EUCTGHRSG4A, by testing at owner's expense, in accordance with 40 CFR Part 60 Subparts A and KKKK, will be required. The permittee shall notify the AQD District Supervisor in writing within 15 days of the date of commencement of trial operation in accordance with 40 CFR 60.7(a)(3). No less than 60 days prior to testing, a complete test plan shall be submitted to the AQD Permit Section Supervisor and the Technical Programs Unit (TPU) Supervisor. The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(R 336.2001, R 336.2003, R 336.2004, R 336.2810, 40 CFR 60 Subpart KKKK)**

2. Within 180 days but no later than 12 months after commencement of initial start-up, verification of PM, PM10, PM2.5 and VOC emission rates from each CTG/HRSG, EUCTGHRSG1A, EUCTGHRSG2A, EUCTGHRSG3A, and EUCTGHRSG4A, at maximum routine operating conditions, by testing at owner's expense, in accordance with Department requirements, will be required. The permittee shall complete the testing once every five years, thereafter, unless an alternate testing schedule is approved by the District Supervisor. No less than 30 days prior to testing, a complete test plan shall be submitted to the AQD Permit Section Supervisor and the TPU Supervisor. The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(R 336.1331, R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804, R 336.2810)**

3. In order to demonstrate compliance with Special Condition IV.3, within 60 days after achieving the maximum production rate, but no later than 180 days after commencement of initial start-up, the permittee shall conduct net heat rate performance testing for each CTG/HRSG pair (2x1 Block), EUCTGHRSG1A plus EUCTGHRSG2A combined and EUCTGHRSG3A plus EUCTGHRSG4A combined, using ASME PTC 46-1996 or alternate method as approved by the District Supervisor. The permittee shall complete the testing once every five years, thereafter, unless an alternate testing schedule is approved by the District Supervisor. No less than 60 days prior to testing, a complete test plan shall be submitted to the AQD Permit Section Supervisor and the Technical Programs Unit (TPU) Supervisor. The final plan must be approved by the AQD prior to testing. Verification of heat rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(R 336.2001, R 336.2003, R 336.2004, R 336.2810)**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205(1)(a), R 336.2803, R 336.2804)**

2. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the NOx emissions and oxygen or carbon dioxide (O_2 or CO_2) content of the exhaust gas from each CTG/HRSG, EUCTGHRSG1A, EUCTGHRSG2A, EUCTGHRSG3A, and EUCTGHRSG4A, on a continuous basis. The permittee shall install and operate the Continuous Emission Monitoring System (CEMS) to meet the timelines, requirements and reporting detailed in Appendix A. **(R 336.1205(1)(a), R 336.2803, R 336.2804, R 336.2810, 40 CFR 60.4345)**

3. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the CO emissions and oxygen or carbon dioxide (O_2 or CO_2) content of the exhaust gas from each CTG/HRSG, EUCTGHRSG1A, EUCTGHRSG2A, EUCTGHRSG3A, and EUCTGHRSG4A, on a continuous basis. The permittee shall install and operate the CEMS to meet the timelines, requirements and reporting detailed in Appendix A. **(R 336.1205(1)(a), R 336.2804, R 336.2810)**

4. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the fuel flow rate for each CTG/HRSG, EUCTGHRSG1A, EUCTGHRSG2A, EUCTGHRSG3A, and EUCTGHRSG4A, on a continuous basis. The fuel flow monitor shall be operated in accordance with 40 CFR 60.4345(c). **(R 336.1205(1)(a), R 336.2803, R 336.2804, 40 CFR 60.4345)**

5. The permittee shall keep, in a satisfactory manner, 24-hour rolling average NOx and CO concentration records for each CTG/HRSG, EUCTGHRSG1A, EUCTGHRSG2A, EUCTGHRSG3A, and EUCTGHRSG4A, as required by SC I.1 and I.4. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205(1)(a), R 336.2810)**

6. The permittee shall keep, in a satisfactory manner, 1-hour average NOx mass emission records for each CTG/HRSG pair (2x1 Block): EUCTGHRSG1A plus EUCTGHRSG2A combined and EUCTGHRSG3A plus EUCTGHRSG4A combined, as required by SC I.2. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205(1)(a), R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

7. The permittee shall keep, in a satisfactory manner, 4-hour rolling average CO mass emissions records for each CTG/HRSG pair (2x1 Block): EUCTGHRSG1A plus EUCTGHRSG2A combined and EUCTGHRSG3A plus EUCTGHRSG4A combined, as required by SC I.5. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205(1)(a), R 336.2804, 40 CFR 52.21(d))**

8. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling total NOx and CO mass emission records for start-up and shutdown events and total emissions for each CTG/HRSG pair (2x1 Block): EUCTGHRSG1A plus EUCTGHRSG2A combined and EUCTGHRSG3A plus EUCTGHRSG4A combined, as required by SC 1.3 and I.6. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205(1)(a), R 336.2810)**

9. The permittee shall keep, in a satisfactory manner, records of monthly and 12-month rolling total CO_2e mass emission records for EUCTGHRSG1A, EUCTGHRSG2A, EUCTGHRSG3A, EUCTGHRSG4A and FGCCA, as required by SC I.11. The permittee shall keep all records on file and make them available to the Department upon request. The calculations shall be performed as follows or according to an alternate method approved by the District Supervisor. **(R 336.1205(1)(a), R 336.2810)**

CO_2e emissions (tons/month) = [(Fuel Usage (mmscf/month) x Higher Heating Value (mmbtu/mmscf)) x (CO_2 EF (lb/mmbtu) x CO_2 GWP + CH_4 EF (lb/mmbtu) x CH_4 GWP + N_2O EF (lb/mmbtu) x N_2O GWP)] x 1/2000 (ton/lb)

Where:
Fuel Usage (mmscf/month) = monthly fuel usage data from fuel flow meter
Heat Content (mmbtu/mmscf) = standard value in AP-42 for natural gas or supplier data, if available
CO_2 EF (lb/mmbtu) = emission factor from GHG Mandatory Reporting Rule (MRR) (40 CFR 98, Subpart C, December 17, 2010) for natural gas
CH_4 EF (lb/mmbtu) = emission factor from GHG MRR (40 CFR 98, Subpart C, December 17, 2010) for natural gas
N_2O EF (lb/mmbtu) = emission factor from GHG MRR (40 CFR 98, Subpart C, December 17, 2010) for natural gas
CO_2 GWP = global warming potential from GHG MRR (40 CFR 98, Subpart A, October 30, 2009)
CH_4 GWP = global warming potential from GHG MRR (40 CFR 98, Subpart A, October 30, 2009)
N_2O GWP = global warming potential from GHG MRR (40 CFR 98, Subpart A, October 30, 2009)

10. The permittee shall maintain records of all information necessary for all notifications and reports as specified in these special conditions as well as that information necessary to demonstrate compliance with the emission limits of this permit and 40 CFR Part 60, Subpart KKKK. This information shall include, but shall not be limited to the following:
    a. Compliance tests and any testing required under the special conditions of this permit;
    b. Monitoring data;
    c. Total sulfur content of the natural gas as required by 40 CFR 60.4365(a);
    d. Verification of heat input capacity required to show compliance with SC IV.1;
    e. Amounts of fuel combusted in each CTG/HRSG, EUCTGHRSG1A, EUCTGHRSG2A, EUCTGHRSG3A, and EUCTGHRSG4A, on a calendar month basis;
    f. All records required by 40 CFR 60.7 and 60.4350;
    g. Records of the duration of all times each CTG/HRSG, EUCTGHRSG1A, EUCTGHRSG2A, EUCTGHRSG3A, and EUCTGHRSG4A, is operated under start-up or shutdown conditions as defined in SC III.3;
    h. All calculations necessary to show compliance with the limits contained in this permit.

    All of the above information shall be stored in a format acceptable to the Air Quality Division and shall be consistent with the requirements of 40 CFR 60.7(f). **(R 336.1205(1)(a), R 336.1224, R 336.1225, R 336.1331, R 336.1401, R 336.1702(a), R 336.1912, R 336.2803, R 336.2804, 40 CFR 60.7(f))**

VII. REPORTING

1. Within 30 days after completion of the installation, construction, reconstruction, relocation, or modification authorized by this Permit to Install, the permittee or the authorized agent pursuant to Rule 204, shall notify the AQD District Supervisor, in writing, of the completion of the activity. Completion of the installation, construction, reconstruction, relocation, or modification is considered to occur not later than commencement of initial start-up of EUCTGHRSG1A, EUCTGHRSG2A, EUCTGHRSG3A, or EUCTGHRSG4A. **(R 336.1201(7)(a))**

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVCTGHRSG1A	240	200	R 336.1225, R 336.2803, R 336.2804 40 CFR 52.21(c) & (d)
2. SVCTGHRSG2A	240	200	R 336.1225, R 336.2803, R 336.2804 40 CFR 52.21(c) & (d)
3. SVCTGHRSG3A	240	200	R 336.1225, R 336.2803, R 336.2804 40 CFR 52.21(c) & (d)
4. SVCTGHRSG4A	240	200	R 336.1225, R 336.2803, R 336.2804 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENT(S)

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

2. The permittee shall not operate FGCCA simultaneously with FGCCB. **(R 336.1205, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))**

3. The permittee shall not operate FGCCA simultaneously with FGCOMBUSTURBS1-9 covered by MI-ROP-B2918-2010a, except during emergency grid restoration efforts. **(R 336.1205, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))**

The following conditions apply to: FGCCB

DESCRIPTION

FGCCB consists of four natural gas fired CTGs operating in combined-cycle mode using Technology B. CTGs and HRSGs 1 and 2 will drive one steam turbine electrical generator (STG). CTGs and HRSGs 3 and 4 will drive a second STG.

Emission Units: EUCTGHRSG1B, EUCTGHRSG2B, EUCTGHRSG3B, EUCTGHRSG4B

POLLUTION CONTROL EQUIPMENT

Each emission unit has dry low-NOx combustors (CTGs and HRSG with duct burners) and has selective catalytic reduction for NO_X control and oxidation catalyst for CO control inside the HRSGs.

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NOx	3 ppmv dry at 15% oxygen, (applied on a per unit basis), except during startup & shutdown	24-hour rolling average as determined each day the turbine operates	EUCTGHRSG1B, EUCTGHRSG2B, EUCTGHRSG3B, EUCTGHRSG4B	SC V.1, SC VI.2, SC VI.5	R 336.1205(1)(a), 40 CFR 60.4320(a), R 336.2810,
2. NOx	760 pph (applied on a per block basis)	1-hour average	Each CTG/HRSG pair (2x1 Block): EUCTGHRSG1B plus EUCTGHRSG2B combined and EUCTGHRSG3B plus EUCTGHRSG4B combined	SC VI.2, SC VI.4, SC VI.6	R 336.1205(1)(a), R 336.2803, R 336.2804, R 336.2810 40 CFR 52.21(c) & (d)
3. NO_X	60.1 tpy (applied on a per block basis)	12-month rolling time period for startup and shutdown events	Each CTG/HRSG pair (2x1 Block): EUCTGHRSG1B plus EUCTGHRSG2B combined and EUCTGHRSG3B plus EUCTGHRSG4B combined	SC VI.2 SC VI.4 SC VI,8	R 336.1205(1)(a), R 336.2810
4. CO	4 ppmv dry at 15% oxygen, (applied on a per unit basis), except during startup & shutdown	Test protocol will specify averaging time.	EUCTGHRSG1B, EUCTGHRSG2B, EUCTGHRSG3B, EUCTGHRSG4B	SC VI.3, SC VI.5	R 336.1205(1)(a), R 336.2804, R 336.2810, 40 CFR 52.21(d)
5. CO	2,965 pph (applied on a per block basis)	4-hour rolling average as determined each day the turbine operates	Each CTG/HRSG pair (2x1 Block): EUCTGHRSG1B plus EUCTGHRSG2B combined and EUCTGHRSG3B plus EUCTGHRSG4B	SC VI.3, SC VI.4, SC VI.7	R 336.1205(1)(a), R 336.2804, 40 CFR 52.21(d)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
6. CO	624 tpy (applied on a per block basis)	12-month rolling time period for startup and shutdown events	Each CTG/HRSG pair (2x1 Block): EUCTGHRSG1B plus EUCTGHRSG2B combined and EUCTGHRSG3B plus EUCTGHRSG4B combined	SC VI.3, SC VI.4, SC VI.8	R 336.1205(1)(a), R 336.2810
7. PM	0.0033 lb/MMBtu heat input (applied on a per unit basis)	Test protocol will specify averaging time	EUCTGHRSG1B, EUCTGHRSG2B, EUCTGHRSG3B, EUCTGHRSG4B	SC V.2	R 336.1205(1)(a), R 336.2810, R 336.1331(c)
8. PM10	0.0066 lb/MMBtu heat input (applied on a per unit basis)	Test protocol will specify averaging time	EUCTGHRSG1B, EUCTGHRSG2B, EUCTGHRSG3B, EUCTGHRSG4B	SC V.2	R 336.1205(1)(a), R336.2803, R336.2804, R 336.2810, 40 CFR 52.21(c) & (d)
9. PM2.5	0.0066 lb/MMBtu heat input (applied on a per unit basis)	Test protocol will specify averaging time	EUCTGHRSG1B, EUCTGHRSG2B, EUCTGHRSG3B, EUCTGHRSG4B	SC V.2	R 336.1205(1)(a), R336.2803, R336.2804, R 336.2810, 40 CFR 52.21(c) & (d)
10. VOC	0.0036 lb/MMBtu heat input (applied on a per unit basis)	Test protocol will specify averaging time	EUCTGHRSG1B, EUCTGHRSG2B, EUCTGHRSG3B, EUCTGHRSG4B	SC V.2	R 336.1205(1)(a), R 336.2804, R 336.2810, R 336.1702, 40 CFR 52.21(d)
11. GHGs as CO_2e	1,386,826 tpy (applied on a per unit basis)	12-month rolling time period as determined at the end of each calendar month	EUCTGHRSG1B, EUCTGHRSG2B, EUCTGHRSG3B, EUCTGHRSG4B	SC VI.4, SC VI.9	R 336.1205(1)(a), R 336.2810

II. MATERIAL LIMIT(S)

1. The permittee shall only combust pipeline quality natural gas in FGCCB. **(R 336.1205(1)(a), R 336.1401, R 336.1702(a), 40 CFR 60.4330)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EUCTGHRSG1B, EUCTGHRSG2B, EUCTGHRSG3B or EUCTGHRSG4B unless a MAP as described in Rule 911(2), has been submitted within 180 days of initial start-up, and is implemented and maintained. The MAP shall, at a minimum, specify the following:
   a. A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.

   b. An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.

   c. A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.

   d. Identification of the source, and operating variables and ranges for varying loads, shall be monitored and recorded. The normal operating range of these variables and a description of the method of monitoring shall be 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. **(R 336.1911)**

2. The permittee shall not operate EUCTGHRSG1B, EUCTGHRSG2B, EUCTGHRSG3B or EUCTGHRSG4B unless the AQD District Supervisor has approved a plan that describes how emissions will be minimized during start-up and shutdown. The plan shall incorporate procedures recommended by the equipment manufacturer as well as incorporating standard industry practices. Unless notified by the AQD District Supervisor within 30 business days after plan submittal, the plan shall be deemed approved. **(R 336.1911, R 336.1912)**

3. Start-up is defined as the period of time from initiation of combustion turbine firing until each combustion turbine reaches 112 megawatts gross output (i.e. minimum of 50% of the maximum design capacity). Shutdown is defined as that period of time from the initial lowering of the CTG output below 112 gross megawatts (i.e. 50% of the maximum design capacity), with the intent to shutdown, until the point at which the combustion process has stopped. **(R 336.2803, R 336.2804, R 336.2810)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The maximum design heat input capacity for each CTG/HRSG, EUCTGHRSG1B, EUCTGHRSG2B, EUCTGHRSG3B and EUCTGHRSG4B, shall not exceed 2,688 MMBtu per hour on a fuel heat input basis. This includes the combined fuel heat input for both the CTG and HRSG with duct burner. **(R 336.1205(1)(a) and (1)(b), R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))**

2. Permittee shall not operate EUCTGHRSG1B, EUCTGHRSG2B, EUCTGHRSG3B or EUCTGHRSG4B unless the selective catalytic reduction for NO_X control and the oxidation catalyst for CO control have been installed, maintained, and operated in a satisfactory manner. Satisfactory manner includes operating and maintaining each control device in accordance with an approved MAP for EUCTGHRSG1B, EUCTGHRSG2B, EUCTGHRSG3B and EUCTGHRSG4B as required in Process/Operational Restriction SC III.1. **(R 336.1205, R 336.2803, R 336.2804, R 336.2810)**

3. The net heat rate for each CTG/HRSG pair (2x1 Block), EUCTGHRSG1B plus EUCTGHRSG2B combined and EUCTGHRSG3B plus EUCTGHRSG4B combined, shall not exceed 7,572 Btu/kW-hr (HHV-net) at the following reference conditions: ambient temperature of 59°F, 60% relative humidity, ambient pressure at the mean site elevation, baseload operation without duct firing, and not accounting for transformer losses. **(R 336.1205, R 336.2810)**

V. TESTING/SAMPLING

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

1. Within 60 days after achieving the maximum production rate, but no later than 180 days after commencement of initial start-up, verification of NO_X emission rates from each CTG/HRSG, EUCTGHRSG1B, EUCTGHRSG2B, EUCTGHRSG3B and EUCTGHRSG4B, by testing at owner's expense, in accordance with 40 CFR Part 60 Subparts A and KKKK will be required. The permittee shall notify the AQD District Supervisor in writing within 15 days of the date of commencement of trial operation in accordance with 40 CFR 60.7(a)(3). No less than 60 days prior to testing, a complete test plan shall be submitted to the AQD Permit Section Supervisor and the TPU Supervisor. The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(R 336.2001, R 336.2003, R 336.2004, R 336.2803, R336.2804, R 336.2810, 40 CFR 60 Subpart KKKK)**

2. Within 180 days but no later than 12 months after commencement of initial start-up, verification of PM, PM10, PM2.5 and VOC emission rates from each CTG/HRSG, EUCTGHRSG1B, EUCTGHRSG2B, EUCTGHRSG3B and EUCTGHRSG4B, at maximum routine operating conditions, by testing at owner's expense, in accordance with Department requirements, will be required. The permittee shall complete the testing once every five years, thereafter, unless an alternate testing schedule is approved by the District Supervisor. No less than 60 days prior to testing, a complete test plan shall be submitted to the AQD Permit Section Supervisor and the TPU Supervisor. The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(R 336.1331, R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804), R336.2810)**

3. In order to demonstrate compliance with Special Condition IV.3, within 60 days after achieving the maximum production rate, but no later than 180 days after commencement of initial start-up, the permittee shall conduct net heat rate performance testing for each CTG/HRSG pair (2x1 Block), EUCTGHRSG1A plus EUCTGHRSG2A combined and EUCTGHRSG3A plus EUCTGHRSG4A combined, using ASME PTC 46-1996 or alternate method as approved by the District Supervisor. The permittee shall complete the testing once every five years, thereafter, unless an alternate testing schedule is approved by the District Supervisor. No less than 60 days prior to testing, a complete test plan shall be submitted to the AQD Permit Section Supervisor and the TPU Supervisor. The final plan must be approved by the AQD prior to testing. Verification of heat rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(R 336.2001, R 336.2003, R 336.2004, R 336.2810)**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205(1)(a), R 336.2803, R 336.2804)**

2. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the NOx emissions and oxygen or carbon dioxide (O_2 or CO_2) content of the exhaust gas from each CTG/HRSG, EUCTGHRSG1B, EUCTGHRSG2B, EUCTGHRSG3B and EUCTGHRSG4B, on a continuous basis. The permittee shall install and operate the Continuous Emission Monitoring System (CEMS) to meet the timelines, requirements and reporting detailed in Appendix A. **(R 336.1205(1)(a), R 336.2803, R 336.2804, R 336.2810, 40 CFR 60.4345)**

3. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the CO emissions and oxygen or carbon dioxide (O_2 or CO_2) content of the exhaust gas from each CTG/HRSG, EUCTGHRSG1B, EUCTGHRSG2B, EUCTGHRSG3B, and EUCTGHRSG4B, on a continuous basis. The permittee shall install and operate the CEMS to meet the timelines, requirements and reporting detailed in Appendix A. **(R 336.1205(1)(a), R 336.2804, R 336.2810)**

4. The permittee shall install, calibrate and maintain and operate in a satisfactory manner a device to monitor and record the fuel flow rate for each CTG/HRSG, EUCTGHRSG1B, EUCTGHRSG2B, EUCTGHRSG3B and EUCTGHRSG4B, on a continuous basis. The fuel flow monitor shall be operated in accordance with 40 CFR 60.4345(c). **(R 336.1205(1)(a), R 336.2803, R 336.2804, 40 CFR 60.4345)**

5. The permittee shall keep, in a satisfactory manner 24-hour rolling average NOx and CO concentration records for each CTG/HRSG, EUCTGHRSG1B, EUCTGHRSG2B, EUCTGHRSG3B and EUCTGHRSG4B, as required by SC I.1 and I.4. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205(1)(a), R 336.2810)**

6. The permittee shall keep, in a satisfactory manner, 1-hour average NOx mass emission records for each CTG/HRSG pair (2x1 Block): EUCTGHRSG1B plus EUCTGHRSG2B combined and EUCTGHRSG3B plus EUCTGHRSG4B combined,, as required by SC I.2. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205(1)(a), R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

7. The permittee shall keep, in a satisfactory manner, 4-hour rolling average CO mass emissions records for each CTG/HRSG pair (2x1 Block): EUCTGHRSG1B plus EUCTGHRSG2B combined and EUCTGHRSG3B plus EUCTGHRSG4B combined, as required by SC I.5. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205(1)(a), R 336.2804, 40 CFR 52.21(d))**

8. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling total NOx and CO mass emission records for start-up and shutdown events and total emissions for Each CTG/HRSG pair (2x1 Block): EUCTGHRSG1B plus EUCTGHRSG2B combined and EUCTGHRSG3B plus EUCTGHRSG4B combined, as required by SC I.3 and I.6. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205(1)(a), R 336.2810)**

9. The permittee shall keep, in a satisfactory manner, records of monthly and 12-month rolling total CO_2e mass emission records for EUCTGHRSG1B, EUCTGHRSG2B, EUCTGHRSG3B, EUCTGHRSG4B and FGCCB, as required by SC I.11. The permittee shall keep all records on file and make them available to the Department upon request. The calculations shall be performed as follows or according to an alternate method approved by the District Supervisor. **(R 336.1205(1)(a), R 336.2810)**

CO_2e emissions (tons/month) = [(Fuel Usage (mmscf/month) x Higher Heating Value (mmbtu/mmscf)) x (CO_2 EF (lb/mmbtu) x CO_2 GWP + CH_4 EF (lb/mmbtu) x CH_4 GWP + N_2O EF (lb/mmbtu) x N_2O GWP)] x 1/2000 (ton/lb)

Where:
Fuel Usage (mmscf/month) = monthly fuel usage data from fuel flow meter
Heat Content (mmbtu/mmscf) = standard value in AP-42 for natural gas or supplier data, if available
CO_2 EF (lb/mmbtu) = emission factor from GHG Mandatory Reporting Rule (MRR) (40 CFR 98, Subpart C, December 17, 2010) for natural gas
CH_4 EF (lb/mmbtu) = emission factor from GHG MRR (40 CFR 98, Subpart C, December 17, 2010) for natural gas
N_2O EF (lb/mmbtu) = emission factor from GHG MRR (40 CFR 98, Subpart C, December 17, 2010) for natural gas
CO_2 GWP = global warming potential from GHG MRR (40 CFR 98, Subpart A, October 30, 2009)
CH_4 GWP = global warming potential from GHG MRR (40 CFR 98, Subpart A, October 30, 2009)
N_2O GWP = global warming potential from GHG MRR (40 CFR 98, Subpart A,October 30, 2009)

10. The permittee shall maintain records of all information necessary for all notifications and reports as specified in these special conditions as well as that information necessary to demonstrate compliance with the emission limits of this permit and 40 CFR Part 60, Subpart KKKK. This information shall include, but shall not be limited to the following:
    c. Compliance tests and any testing required under the special conditions of this permit;
    d. Monitoring data;
    e. Total sulfur content of the natural gas as required by 40 CFR 60.4365(a);
    f. Verification of heat input capacity required to show compliance with SC IV.1;
    g. Amounts of fuel combusted in each CTG/HRSG, EUCTGHRSG1B, EUCTGHRSG2B, EUCTGHRSG3B, and EUCTGHRSG4B, on a calendar month basis;
    h. All records required by 40 CFR 60.7 and 60.4350;
    i. Records of the duration of all times each CTG/HRSG, EUCTGHRSG1B, EUCTGHRSG2B, EUCTGHRSG3B, and EUCTGHRSG4B, is operated under start-up or shutdown conditions as defined in SC III.3;
    j. All calculations necessary to show compliance with the limits contained in this permit.

    All of the above information shall be stored in a format acceptable to the Air Quality Division and shall be consistent with the requirements of 40 CFR 60.7(f). **(R 336.1205(1)(a), R 336.1224, R 336.1225, R 336.1331, R 336.1401, R 336.1702(a), R 336.1912, R 336.2803, R 336.2804, 40 CFR 60.7(f))**

VII. REPORTING

1. Within 30 days after completion of the installation, construction, reconstruction, relocation, or modification authorized by this Permit to Install, the permittee or the authorized agent pursuant to Rule 204, shall notify the AQD District Supervisor, in writing, of the completion of the activity. Completion of the installation, construction, reconstruction, relocation, or modification is considered to occur not later than commencement of initial start-up of EUCTGHRSG1B, EUCTGHRSG2B, EUCTGHRSG3B and EUCTGHRSG4B. **(R 336.1201(7)(a))**

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVCTGHRSG1B	240	200	R 336.1225, R 336.2803, R 336.2804 40 CFR 52.21(c) & (d)
2. SVCTGHRSG2B	240	200	R 336.1225, R 336.2803, R 336.2804 40 CFR 52.21(c) & (d)
3. SVCTGHRSG3B	240	200	R 336.1225, R 336.2803, R 336.2804 40 CFR 52.21(c) & (d)
4. SVCTGHRSG4B	240	200	R 336.1225, R 336.2803, R 336.2804 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENT(S)

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

2. The permittee shall not operate FGCCB simultaneously with FGCCA. **(R 336.1205, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))**

3. The permittee shall not operate FGCCB simultaneously with FGCOMBUSTURBS1-9 covered by MI-ROP-B2918-2010a, except during emergency grid restoration efforts. **(R 336.1205, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))**

APPENDIX A
Continuous Emission Monitoring System and Continuous Emission Rate Monitoring System (CEMS/CERMS) Requirements

1. Within 30 calendar days after commencement of initial start-up, the permittee shall submit two copies of a Monitoring Plan to the AQD, for review and approval. The Monitoring Plan shall include drawings or specifications showing proposed locations and descriptions of the required CEMS/CERMS.

2. Within 150 calendar days after commencement of initial start-up, the permittee shall submit two copies of a complete test plan for the CEMS/CERMS to the AQD for approval.

3. Within 180 calendar days after commencement of initial start-up, the permittee shall complete the installation and testing of the CEMS/CERMS.

4. Within 60 days of completion of testing, the permittee shall submit to the AQD two copies of the final report demonstrating the CEMS/CERMS complies with the requirements of the corresponding Performance Specifications (PS) in the following table:

Pollutant	Applicable PS*
NOx	2
CO	4
CO_2/O_2	3
CERMS	6
*Or other PS as approved by the AQD.	

5. The span value shall be 2.0 times the lowest emission standard or as specified in the federal regulations.

6. The CEMS/CERMS shall be installed, calibrated, maintained, and operated in accordance with the procedures set forth in 40 CFR 60.13 and PS 2, 3, 4, and 6 (see No. 4 above) of Appendix B to 40 CFR Part 60 or 40 CFR Part 75, Appendices A and B, as applicable.

7. Each calendar quarter, the permittee shall perform the Quality Assurance Procedures of the CEMS/CERMS set forth in Appendix F of 40 CFR Part 60 or 40 CFR Part 75, Appendix B. Within 30 days following the end of each calendar quarter, the permittee shall submit the results to the AQD in the format of the data assessment report (Figure 1, Appendix F of 40 CFR Part 60).

8. In accordance with 40 CFR 60.7(c) and (d), the permittee shall submit two copies of an excess emission report (EER) and summary report in an acceptable format to the AQD, within 30 days following the end of each calendar quarter. The summary report shall follow the format of Figure 1 in 40 CFR 60.7(d). The EER shall include the following information:

   a. A report of each exceedance above the limits specified in the Emission Limits of this permit. This includes the date, time, magnitude, cause and corrective actions of all occurrences during the reporting period.

   b. A report of all periods of CEMS/CERMS downtime and corrective action.

   c. A report of the total operating time of each emission unit during the reporting period.

   d. A report of any periods that the CEMS/CERMS exceeds the instrument range.

   e. If no exceedances or CEMS/CERMS downtime occurred during the reporting period, the permittee shall report that fact.

9. The permittee shall keep all monitoring data on file for a period of at least five years and make them available to the AQD upon request.