### **Bay Area Air Quality Management District**

939 Ellis Street San Francisco, CA 94109 (415) 771-6000

### **Final**

## **MAJOR FACILITY REVIEW PERMIT**

Issued To:
Mariposa Energy, LLC
Facility # B9730

**Facility Address:** 4887 Bruns Road Byron, CA 94514

**Mailing Address:** 

633 West Fifth Street, Suite 1000 Los Angeles, CA 90071

#### **Responsible Official**

Bohdan Buchynsky, Executive Vice President (213) 473-0092

### **Facility Contact**

Wayne Forsyth, Senior Compliance Manager (213) 473-0093

Type of Facility: Primary SIC: Product:	Generation of Electricity 4911 Electricity	BAAQMD Permit Division Contact: Madhav Patil, Air Quality Engineer
ISSUED BY THE I	BAY AREA AIR QUALITY MANA	GEMENT DISTRICT

Signed by Jim Karas, P.E. June 19, 2015
Jim Karas, P.E., Director of Engineering Date

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#### I. STANDARD CONDITIONS

#### A. Administrative Requirements

The permit holder shall comply with all applicable requirements in the following regulations:

BAAQMD Regulation 1 - General Provisions and Definitions

(as amended by the District Board on 5/4/11);

SIP Regulation 1 - General Provisions and Definitions

(as approved by EPA through 6/28/99);

BAAQMD Regulation 2, Rule 1 - Permits, General Requirements

(as amended by the District Board on 4/18/12);

SIP Regulation 2, Rule 1 - Permits, General Requirements

(as approved by EPA through 1/26/99);

BAAQMD Regulation 2, Rule 2 - Permits, New Source Review

(as amended by the District Board on 6/15/05);

SIP Regulation 2, Rule 2 - Permits, New Source Review and Prevention of Significant Deterioration (PSD)

(as approved by EPA through 1/26/99);

BAAQMD Regulation 2, Rule 4 - Permits, Emissions Banking

(as amended by the District Board on 12/19/12);

SIP Regulation 2, Rule 4 - Permits, Emissions Banking

(as approved by EPA through 1/26/99); and

BAAQMD Regulation 2, Rule 5 – New Source Review of Toxic Air Contaminants

(as amended by the District Board on 1/6/10);

BAAQMD Regulation 2, Rule 6 - Permits, Major Facility Review

(as amended by the District Board on 4/16/03); and

SIP Regulation 2, Rule 6 – Permits, Major Facility Review

(as approved by EPA through 6/23/95).

#### B. Conditions to Implement BAAQMD Regulation 2, Rule 6, Major Facility Review

- 1. This Major Facility Review Permit will be issued on November 12, 2014, and expires on November 11, 2019. The permit holder shall submit a complete application for renewal of this Major Facility Review Permit no later than May 11, 2019 and no earlier than November 11, 2018. If a complete application for renewal has not been submitted in accordance with this deadline, the facility may not operate after November 11, 2019. If the permit renewal has not been issued by November 11, 2019, but a complete application for renewal has been submitted in accordance with the above deadlines, the existing permit will continue in force until the District takes final action on the renewal application. (BAAQMD Regulation 2-6-307, 404.2, & 409.6; MOP Volume II, Part 3, §4.2)
- 2. The permit holder shall comply with all conditions of this permit. The permit consists of this document and all appendices. Any non-compliance with the terms and conditions of this permit will constitute a violation of the law and will be grounds for enforcement action; permit termination, revocation and re-issuance, or modification; or denial of a permit renewal application. (BAAQMD Regulation 2-6-307; MOP Volume II, Part 3, §4.11)

### I. Standard Conditions

- 3. In the event any enforcement action is brought as a result of a violation of any term or condition of this permit, the fact that it would have been necessary for the permittee to halt or reduce the permitted activity in order to maintain compliance with such term or condition shall not be a defense to such enforcement action. (MOP Volume II, Part 3, §4.11)
- 4. This permit may be modified, revoked, reopened and reissued, or terminated for cause. (BAAQMD Regulation 2-6-307, 409.8, 415; MOP Volume II, Part 3, §4.11)
- 5. The filing of a request by the facility for a permit modification, revocation and re-issuance, or termination, or the filing of a notification of planned changes or anticipated non-compliance does not stay the applicability of any permit condition. (BAAQMD Regulation 2-6-409.7; MOP Volume II, Part 3, §4.11)
- 6. This permit does not convey any property rights of any sort, or any exclusive privilege. (BAAQMD Regulation 2-6-409.7; MOP Volume II, Part 3, §4.11)
- 7. The permit holder shall supply within 30 days any information that the District requests in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. (BAAQMD Regulation 1-441, BAAQMD Regulation 2-6-409.4 & 501; MOP Volume II, Part 3, §4.11)
- 8. Any records required to be maintained pursuant to this permit, which the permittee considers to contain proprietary or trade secret information, shall be prominently designated as such. Copies of any such proprietary or trade secret information which are provided to the District shall be maintained by the District in a locked confidential file, provided, however, that requests from the public for the review of any such information shall be handled in accordance with the District's procedures set forth in Section 11 of the District's Administrative Code. (BAAQMD Regulation 2-6-419; MOP Volume II, Part 3, §4.11)
- 9. Proprietary or trade secret information provided to EPA will be subject to the requirements of 40 CFR Part 2, Subpart B Public Information, Confidentiality of Business Information. (40 CFR Part 2)
- 10. The emissions inventory submitted with the application for this Major Facility Review Permit is an estimate of actual emissions or the potential to emit for the time period stated and is included only as one means of determining applicable requirements for emission sources. It does not establish, or constitute a basis for establishing, any new emission limitations. (MOP Volume II, Part 3, §4.11)
- 11. The responsible official shall certify all documents submitted by the facility pursuant to the major facility review permit. The certification shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. The certifications shall be signed by a responsible official for the facility. (BAAQMD Regulation 2-6-409.20, MOP Volume II, Part 3, §4.11)

#### I. Standard Conditions

12. The permit holder is responsible for compliance, and certification of compliance, with all conditions of the permit, regardless whether it acts through employees, agents, contractors, or subcontractors. (BAAQMD Regulation 2-6-307)

#### C. Requirement to Pay Fees

The permit holder shall pay annual fees in accordance with District Regulation 3, including Schedule P. (BAAQMD Regulation 2-6-402 & 409.13, BAAQMD Regulation 3; MOP Volume II, Part 3, §4.12)

#### D. Inspection and Entry

Access to Facility: The permit holder shall provide reasonable access to the facility and equipment that is subject to this permit to the APCO and/or to his or her designee. (BAAQMD Regulation 1-440, BAAQMD Regulation 2-6-409.3; MOP Volume II, Part 3, §4.14)

#### E. Records

- 1. The permit holder must provide any information, records, and reports requested or specified by the APCO. (BAAQMD Regulation 1-441, BAAQMD Regulation 2-6-409.4)
- 2. Notwithstanding the specific wording in any requirement, all records for federally enforceable requirements shall be maintained for at least five years from the date of creation of the record. (BAAQMD Regulation 2-6-501, ; MOP Volume II, Part 3, §4.7)

#### F. Monitoring Reports

Reports of all required monitoring must be submitted to the District at least once every six months, except where an applicable requirement specifies more frequent reporting. The first reporting period for this permit shall be November 12, 2014 to December 31, 2014. The report shall be submitted by January 31, 2015. Subsequent reports shall be for the following periods: January 1<sup>st</sup> through June 30<sup>th</sup> and July 1<sup>st</sup> through December 31<sup>st</sup> and are due on the last day of the month after the end of the reporting period. All instances of non-compliance shall be clearly identified in these reports. The reports shall be certified by the responsible official as true, accurate, and complete. In addition, all instances of non-compliance with the permit shall be reported in writing to the District's Compliance and Enforcement Division within 10 calendar days of the discovery of the incident. Within 30 calendar days of the discovery of any incident of non-compliance, the facility shall submit a written report including the probable cause of non-compliance and any corrective or preventative actions. The reports shall be sent to the following address:

Director of Compliance and Enforcement Bay Area Air Quality Management District 939 Ellis Street San Francisco, CA 94109 Attn: Title V Reports

(BAAQMD Regulation 2-6-502, ; MOP Volume II, Part 3, §4.7)

### I. Standard Conditions

#### **G.** Compliance Certification

Compliance certifications shall be submitted annually by the responsible official of this facility to the Bay Area Air Quality Management District and to the Environmental Protection Agency. The certification period will be January 1<sup>st</sup> through December 31<sup>st</sup>. The certification shall be submitted by January 31<sup>st</sup> of each year. The certification must list each applicable requirement, the compliance status, whether compliance was continuous or intermittent, the method used to determine compliance, and any other specific information required by the permit. The certification should be directed to the District's Compliance and Enforcement Division at the address above, and a copy of the certification shall be sent to the Environmental Protection Agency at the following address:

Director of the Air Division USEPA, Region IX 75 Hawthorne Street San Francisco, CA 94105 Attention: Air-3

(MOP Volume II, Part 3, §4.5 and 4.15)

#### **H.** Emergency Provisions

- 1. The permit holder may seek relief from enforcement action in the event of a breakdown, as defined by BAAQMD Regulation 1-208 of the District's Rules and Regulations, by following the procedures contained in BAAQMD Regulations 1-431 and 1-432. The District will thereafter determine whether breakdown relief will be granted in accordance with BAAQMD Regulation 1-433. (MOP Volume II, Part 3, §4.8)
- 2. The permit holder may seek relief from enforcement action for a violation of any of the terms and conditions of this permit by applying to the District's Hearing Board for a variance pursuant to Health and Safety Code Section 42350. The Hearing Board will determine after notice and hearing whether variance relief should be granted in accordance with the procedures and standards set forth in Health and Safety Code Section 42350 et seq. (MOP Volume II, Part 3, §4.8)
- 3. The granting by the District of breakdown relief or the issuance by the Hearing Board of a variance will not provide relief from federal enforcement. (MOP Volume II, Part 3, §4.8)

#### I. Severability

In the event that any provision of this permit is invalidated by a court or tribunal of competent jurisdiction, or by the Administrator of the EPA, all remaining portions of the permit shall remain in full force and effect. (BAAQMD Regulation 2-6-409.5; MOP Volume II, Part 3, §4.10)

#### J. Miscellaneous Conditions

The maximum capacity for each source as shown in Table II-A is the maximum allowable capacity. Any exceedance of the maximum allowable capacity for any source

### I. Standard Conditions

is a violation of BAAQMD Regulation 2, Rule 1, Section 301. (BAAQMD Regulation 2-1-301)

#### K. Accidental Release

Not Applicable

#### L. Conditions to Implement BAAOMD Regulation 2, Rule 7, Acid Rain

- 1. Every year starting January 30, 2012, the permit holder shall hold one sulfur dioxide allowance on March 1 (February 29<sup>th</sup> during leap year) for each ton of sulfur dioxide emitted during the preceding year from January 1 through December 31. (MOP Volume II, Part 3, §4.9)
- 2. The equipment installed for the continuous monitoring of CO2 and NOx shall be maintained and operated in accordance with 40 CFR Parts 72 and 75. (BAAQMD Regulation 2-7, Acid Rain)
- 3. A written Quality Assurance program must be established in accordance with 40 CFR Part 75, Appendix B for NOx which includes, but is not limited to: procedures for daily calibration testing, quarterly linearity testing, record keeping and reporting implementation, and relative accuracy testing. (BAAQMD Regulation 2-7, Acid Rain)
- 4. The permit holder shall monitor SO2 emissions in accordance with 40 CFR Part 72 and 75. (BAAQMD Regulation 2-7, Acid Rain)
- 5. The permit holder shall submit quarterly Electronic Data Reports (EDRs) to EPA for S-1, S-2, S-3, and S-4, Turbines. These reports must be submitted within 30 days following the end of each calendar quarter and shall include all information required in § 75.64. (40 CFR Part 75)

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### II. EQUIPMENT

#### **Table II A - Permitted Sources**

Each of the following sources has been issued a permit to operate pursuant to the requirements of BAAQMD Regulation 2, Permits. The capacities in this table are the maximum allowable capacities for each source, pursuant to Standard Condition I. J. and BAAQMD Regulation 2-1-301.

S-#	Description	Make or Type	Model	Capacity
1	Gas Turbine Generator, Natural	General Electric	GE LM 6000	500 MMBtu/hour (HHV)
	Gas with high efficiency inlet		PC-Sprint	
	air filtration 50 MW (nominal)		simple-cycle	
2	Gas Turbine Generator, Natural	General Electric	LM6000PC	500 MMBtu/hour (HHV)
	Gas with high efficiency inlet		Sprint	
	air filtration 50 MW (nominal)		simple-cycle	
3	Gas Turbine Generator, Natural	General Electric	LM6000PC	500 MMBtu/hour (HHV)
	Gas with high efficiency inlet		Sprint	
	air filtration 50 MW (nominal)		simple-cycle	
4	Gas Turbine Generator, Natural	General Electric	LM6000PC	500 MMBtu/hour (HHV)
	Gas with high efficiency inlet		Sprint	
	air filtration 50 MW (nominal)		simple-cycle	
6	Diesel Firewater Pump	John Deere	JU6H-	175 BHP
			UFADM8	

Table II B - Abatement Devices

		Source(s)	Applicable	Operating	Limit or Efficiency
<b>A-</b> #	Description	Controlled	Requirement	Parameters	
1	Oxidation catalyst	1	BAAQMD	None	$CO \le 2.0 \text{ ppm}$
			Condition		POC ≤ 0.61 lbs/hr
			#24955 Part		
			17d &17f		
2	Selective Catalytic	1	BAAQMD	None	$NOx \le 2.5 \text{ ppm}$
	Reduction System		Condition		
			#24955 Part		
			17b		
3	Oxidation catalyst	2	BAAQMD	None	$CO \le 2.0 \text{ ppm}$
			Condition		$POC \le 0.61 \text{ lbs/hr}$
			#24955 Part		
			17d &17f		

## II Equipment

**Table II B – Abatement Devices** 

		Source(s)	Applicable	Operating	Limit or Efficiency
<b>A-</b> #	Description	Controlled	Requirement	Parameters	
4	Selective Catalytic	2	BAAQMD	None	$NOx \le 2.5 \text{ ppm}$
	Reduction System		Condition		
			#24955 Part		
			17b		
5	Oxidation catalyst	3	BAAQMD	None	$CO \le 2.0 \text{ ppm}$
			Condition		$POC \le 0.61 \text{ lbs/hr}$
			#24955 Part		
			17d &17f		
6	Selective Catalytic	3	BAAQMD	None	$NOx \le 2.5 \text{ ppm}$
	Reduction System		Condition		
			#24955 Part		
			17b		
7	Oxidation catalyst	4	BAAQMD	None	$CO \le 2.0 \text{ ppm}$
			Condition		$POC \le 0.61 \text{ lbs/hr}$
			#24955 Part		
			17d &17f		
8	Selective Catalytic	4	BAAQMD	None	$NOx \le 2.5 \text{ ppm}$
	Reduction System		Condition		
			#24955 Part		
			17b		

### III. GENERALLY APPLICABLE REQUIREMENTS

The permit holder shall comply with all applicable requirements, including those specified in the BAAQMD and SIP rules and regulations and other federal requirements cited below. These requirements apply in a general manner to the facility and/or to sources exempt from the requirement to obtain a District Permit to Operate. The District has determined that these requirements will not be violated under normal, routine operations, and that no additional periodic monitoring or reporting to demonstrate compliance is warranted. In cases where a requirement, in addition to being generally applicable, is also specifically applicable to one or more sources, the requirement and the source are also included in Section IV, Source-Specific Applicable Requirements, of this permit.

Unpermitted sources are exempt from normal District permits pursuant to an exemption in BAAQMD Regulation 2, Rule 1. They may, however, be specifically described in a Title V permit if they are considered significant sources pursuant to the definition in BAAQMD Rule 2-6-239.

Portable equipment operating in accordance with the ARB portable equipment registration program and temporary equipment may be operated at the facility as long as the source is not significant under Rule 2-6-239. Otherwise significant source would need to be included in the Title V permit.

The dates in parenthesis in the Title column identify the versions of the regulations being cited and are, as applicable:

- 1. BAAQMD regulation(s): The date(s) of adoption or most recent amendment of the regulation by the District Board of Directors
- 2. Any federal requirement, including a version of a District regulation that has been approved into the SIP: The most recent date of EPA approval of any portion of the rule, encompassing all actions on the rule through that date

The full text of the SIP requirements are available on the EPA Region 9 website: <a href="http://yosemite.epa.gov/r9/r9sips.nsf/Agency?ReadForm&count=500&state=California&cat=Bay+Area+Air+Quality+Management+District-Agency-Wide+Provisions">http://yosemite.epa.gov/r9/r9sips.nsf/Agency?ReadForm&count=500&state=California&cat=Bay+Area+Air+Quality+Management+District-Agency-Wide+Provisions</a>

#### **NOTE:**

There are differences between the current BAAQMD rules and the versions of the rules in the SIP. All sources must comply with <u>both</u> versions of a rule until US EPA has reviewed and approved the District's revision of the regulation.

## III. Generally Applicable Requirements

Table III
Generally Applicable Requirements

Applicable Requirement	Regulation Title or  Description of Requirement	Federally Enforceable (Y/N)
BAAQMD Regulation 1	General Provisions and Definitions (5/4/11)	N
SIP Regulation 1	General Provisions and Definitions (6/28/99)	Y
BAAQMD Regulation 2, Rule 1	General Requirements (4/18/12)	N
SIP Regulation 2, Rule 1	General Requirements (1/26/99)	Y
BAAQMD 2-1-429	Federal Emissions Statement (12/21/04)	N
SIP Regulation 2-1-429	Federal Emissions Statement (4/3/95)	Y
BAAQMD Regulation 2, Rule 2	Permits, New Source Review (6/15/05)	N
SIP Regulation 2, Rule 2	Permits, New Source Review (1/26/99)	Y
BAAQMD Regulation 2, Rule 3	Permits, Power Plants (12/19/79)	Y
BAAQMD Regulation 2, Rule 4	Permits, Emissions Banking (12/19/12)	N
SIP Regulation 2, Rule 4	Permits, Emissions Banking (01/26/99)	Y
BAAQMD Regulation 2, Rule 5	New Source Review of Toxic Air Contaminants (1/6/10)	N
BAAQMD Regulation 2, Rule 6	Permits, Major Facility Review (4/16/03)	N
SIP Regulation 2, Rule 6	Permits, Major Facility Review (6/23/95)	Y
BAAQMD Regulation 2, Rule 9	Permits, Interchangeable Emission Reduction Credits (6/15/05)	N
BAAQMD Regulation 3	Fees (6/19/13)	N
BAAQMD Regulation 4	Air Pollution Episode Plan (3/20/91)	N
SIP Regulation 4	Air Pollution Episode Plan (8/6/90)	Y
BAAQMD Regulation 5	Open Burning (6/19/13))	N
SIP Regulation 5	Open Burning (9/4/98)	Y
BAAQMD Regulation 6, Rule 1	Particulate Matter, General Requirements (12/5/07)	N
SIP Regulation 6	Particulate Matter and Visible Emissions (9/4/98)	Y
BAAQMD Regulation 7	Odorous Substances (3/17/82)	N
BAAQMD Regulation 8, Rule 1	Organic Compounds - General Provisions (6/15/94)	Y
BAAQMD Regulation 8, Rule 2	Organic Compounds – Miscellaneous Operations (7/20/05)	N
SIP Regulation 8, Rule 2	Organic Compounds – Miscellaneous Operations (3/22/95)	Y
BAAQMD Regulation 8, Rule 3	Organic Compounds - Architectural Coatings (7/1/09)	N
SIP Regulation 8, Rule 3	Organic Compounds - Architectural Coatings 1/2/04	Y

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## III. Generally Applicable Requirements

## Table III Generally Applicable Requirements

		Federally
Applicable	Regulation Title or	Enforceable
Requirement	Description of Requirement	(Y/N)
BAAQMD Regulation 8, Rule 4	Organic compounds - General Solvent and Surface	Y
	Coating Operations (10/16/02)	
BAAQMD Regulation 8, Rule 15	Organic Compounds- Emulsified and Liquid Asphalts	Y
	(6/1/94)	
BAAQMD Regulation 8, Rule 40	Organic Compounds - Aeration of Contaminated Soil and	N
	Removal of Underground Storage Tanks (6/15/05)	
SIP Regulation 8, Rule 40	Organic Compounds - Aeration of Contaminated Soil and	Y
	Removal of Underground Storage Tanks (4/19/01)	
BAAQMD Regulation 8, Rule 47	Organic Compounds - Air Stripping and Soil Vapor	N
	Extraction Operations (6/15/05)	
SIP Regulation 8, Rule 47	Organic Compounds - Air Stripping and Soil Vapor	Y
	Extraction Operations (4/26/95)	
BAAQMD Regulation 8, Rule 49	Organic Compounds - Aerosol Paint Products (12/20/95)	N
SIP Regulation 8, Rule 49	Organic Compounds - Aerosol Paint Products (3/22/95)	Y
BAAQMD Regulation 8, Rule 51	Organic Compounds - Adhesive and Sealant Products	N
	(7/17/02)	
SIP Regulation 8, Rule 51	Organic Compounds – Adhesive and Sealant Products	Y
	(2/26/02)	
BAAQMD Regulation 9, Rule 1	Inorganic Gaseous Pollutants - Sulfur Dioxide (3/15/95)	N
SIP Regulation 9, Rule 1	Inorganic Gaseous Pollutants - Sulfur Dioxide (6/8/99)	Y
BAAQMD Regulation 11, Rule 2	Hazardous Pollutants - Asbestos Demolition, Renovation	N
	and Manufacturing (10/7/98)	
BAAQMD Regulation 12, Rule 4	Miscellaneous Standards of Performance - Sandblasting	N
	(7/11/90)	
SIP Regulation 12, Rule 4	Miscellaneous Standards of Performance - Sandblasting	Y
- · · · ·	(9/2/81)	
California Health and Safety Code	Portable Equipment	N
Section 41750 et seq.		
California Health and Safety Code	Air Toxics "Hot Spots" Information and Assessment Act	N
Section 44300 et seq.	of 1987	

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## III. Generally Applicable Requirements

## Table III Generally Applicable Requirements

		Federally
Applicable	Regulation Title or	Enforceable
Requirement	Description of Requirement	(Y/N)
California Health and Safety Code	Airborne Toxic Control Measure for Diesel Particulate	N
Title 17, Section 93116	Matter from Portable Engines Rated at 50 Horsepower	
	and Greater	
40 CFR Part 61, Subpart M	National Emission Standards for Hazardous Air	Y
	Pollutants – National Emission Standard for Asbestos	
	(7/20/04)	
EPA Regulation 40 CFR 82	Protection of Stratospheric Ozone (4/13/05)	Y
Subpart F, 40 CFR 82.156	Recycling and Emissions Reductions – Required	Y
	Practices	
Subpart F, 40 CFR 82.161	Recycling and Emissions Reductions – Technician	Y
	Certification	
Subpart F, 40 CFR 82.166	Recycling and Emissions Reductions – Reporting and	Y
	Recordkeeping Requirements	

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### IV. SOURCE-SPECIFIC APPLICABLE REQUIREMENTS

The permit holder shall comply with all applicable requirements, including those specified in the BAAQMD and SIP rules and regulations and other federal requirements cited below. The requirements cited in the following tables apply in a specific manner to the indicated source(s).

The dates in parentheses in the Title column identify the versions of the regulations being cited and are, as applicable:

- 1. BAAQMD regulation(s): The date(s) of adoption or most recent amendment of the regulation by the District Board of Directors
- 2. Any federal requirement, including a version of a District regulation that has been approved into the SIP: The most recent date of EPA approval of any portion of the rule, encompassing all actions on the rule through that date

The full text of each permit condition cited is included in Section VI, Permit Conditions, of this permit. Additionally, where an applicable requirement is a SIP requirement, the full text of the SIP requirement is available on the EPA Region 9 website:

http://yosemite.epa.gov/r9/r9sips.nsf/Agency?ReadForm&count=500&state=California&cat=Bay+Area+Air+Quality+Management+District-Agency-Wide+Provisions. All other text may be found in the regulations themselves.

Table IV - A
Source-specific Applicable Requirements
S-1, S-2, S-3 & S-4 COMBUSTION GAS TURBINES

Applicable	Regulation Title or	Federally Enforceable	Future Effective
Requirement	Description of Requirement	(Y/N)	Date
BAAQMD Regulation 1	General Provisions and Definitions (5/4/11)		
1-107	Combination of Emissions	Y	
1-520	Continuous Emission Monitoring	Y	
1-520.8	Monitors required per Reg. 2-1-403	Y	
1-522	Continuous Emission Monitoring and Recordkeeping Procedures	N	
1-522.1	Approval of plans and specifications for monitoring selection and placement	Y	
1-522.2	Installation scheduling requirements	Y	
1-522.3	CEM performance testing	Y	
1-522.4	Reporting of inoperative CEMs	Y	
1-522.5	CEM calibration requirements	Y	

# Table IV - A Source-specific Applicable Requirements S-1, S-2, S-3 & S-4 COMBUSTION GAS TURBINES

Applicable	Regulation Title or	Federally Enforceable	Future Effective
Requirement	Description of Requirement	(Y/N)	Date
1-522.6	CEM accuracy requirements	Y	
1-522.7	Emission limit exceedance reporting requirements	N	
1-522.8	Monitoring data submittal requirements	Y	
1-522.9	Recordkeeping requirements	Y	
1-523	Parametric Monitoring and Recordkeeping Procedures	Y	
1-523.1	Parametric monitor periods of in operation	Y	
1-523.2	Limits on periods of in operation	Y	
1-523.3	Reports of Violations	N	
1-523.4	Records Maintenance Period	Y	
1-523.5	Maintenance and Calibration	N	
1-602	Area and Continuous Emission Monitoring Requirements	Y	
SIP	Consul Brasisians and Definitions ((/20/00)		
Regulation 1	General Provisions and Definitions (6/28/99)		
1-522	Continuous Emission Monitoring and Recordkeeping Procedures	Y	
1-522.7	Monitor excesses	Y	
1-523	Parametric Monitoring and Recordkeeping Procedures	Y	
1-523.3	Reports of Violations	Y	
BAAQMD			
Regulation 2,	Regulation 2, Rule 1 - Permits, General Requirements (4/18/12)		
Rule 1			
2-1-501	Continuous Emission Monitors	Y	
BAAQMD	Particulate Matter, General Requirements (12/05/07)		
Regulation 6,			
Rule 1			
6-1-301	Ringelmann Number 1 Limitation	N	
6-1-305	Visible Particles	N	
6-1-310	Particulate Weight Limitation	N	
6-1-401	Appearance of Emissions	N	
SIP	Particulate Matter and Visible Emissions (09/04/98)		
Regulation 6			
6-301	Ringelmann Number 1 Limitation	Y	
6-305	Visible Particles	Y	

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## IV. Source-specific Applicable Requirements

# Table IV - A Source-specific Applicable Requirements S-1, S-2, S-3 & S-4 COMBUSTION GAS TURBINES

		Federally	Future
Applicable	Regulation Title or	Enforceable	Effective
Requirement	Description of Requirement	(Y/N)	Date
6-310	Particulate Weight Limitation	Y	
6-401	Appearance of Emissions	Y	
BAAQMD			
Regulation 9,	Inorganic Gaseous Pollutants – Sulfur Dioxide (3/15/95)		
Rule 1			
9-1-301	Limitations on Ground Level Concentrations	Y	
9-1-302	General Emission Limitations	Y	
BAAQMD	Inorganic Gaseous Pollutants-Nitrogen Oxides from Stationary		
Regulation 9,	Gas Turbines (12/06/06)		
Rule 9			
9-9-113	Exemption – Inspection/Maintenance	N	
9-9-114	Exemption – Start-Up/Shutdown	N	
9-9-301	Emission Limits, General	N	
9-9-301.1.3	Emission Limits- Turbines Rated ≥ 10 MW w/SCR	N	
9-9-301.2	Emission Limits - Turbine heat input rated $> 250 - 500$ MM Btu/hr	N	
9-9-401	Certification Efficiency	N	
9-9-501	Monitoring and recordkeeping requirements	N	
9-9-603	Continuous Emission Monitoring	Y	
SIP	Inorganic Gaseous Pollutants-Nitrogen Oxides from Stationary		
Regulation 9,	Gas Turbines (12/15/97)		
Rule 9			
9-9-113	Exemption – Inspection/Maintenance	Y	
9-9-114	Exemption – Start-Up/Shutdown	Y	
9-9-301	Emission Limits, General	Y	
9-9-301.3	Emission Limits- Turbines Rated ≥ 10 MW w/SCR	Y	
9-9-501	Monitoring and recordkeeping requirements	Y	
9-9-603	Continuous Emission Monitoring	Y	
BAAQMD		Y	
Manual of	Continue But and Market Della and December 1990		
Procedures,	Continuous Emission Monitoring Policy and Procedures (1/20/82)		
Volume V			
40 CFR 60,	Standards of Performance for New Stationary Sources – General	Y	
Subpart A	Provision (1/28/09)		

## IV. Source-specific Applicable Requirements

# Table IV - A Source-specific Applicable Requirements S-1, S-2, S-3 & S-4 COMBUSTION GAS TURBINES

		Federally	Future
Applicable	Regulation Title or	Enforceable	Effective
Requirement	Description of Requirement	(Y/N)	Date
60.7	Notification and Recordkeeping	Y	
60.8	Performance Tests	Y	
60.9	Availability of Information	Y	
60.11(a)	Compliance with standards and maintenance requirements	Y	
60.11(d)	Minimizing emissions	Y	
60.12	Circumvention	Y	
60.13	Monitoring Requirements	Y	
60.19	General notification and reporting requirements	Y	
40 CFR 60,	Standard of Performance for Stationary Combustion Turbines	Y	
Subpart	(7/6/06)		
KKKK			
60.4300	What is the purpose of this subpart?	Y	
	Control of emissions from stationary combustion turbines (SCT) that		
	commenced construction, modification, or reconstruction after		
	February 18, 2005		
60.4305	Does this subpart apply to my stationary turbine?	Y	
60.4305(a)	Applicable to SCT with heat input ≥ 10 MMBtu/hr (at turbine only).	Y	
	Emission requirements in subpart also applies to HRSG and duct		
	burner		
60.4305(b)	SCT exempt from Subpart GG and HRSG/duct burner exempt from	Y	
	Subparts Da, Db, and Dc		
60.4315	What pollutants are regulated by this subpart?	Y	
	NOx and SO2		
60.4320	What emission limits must I meet for nitrogen oxides (NOX)?	Y	
60.4320(a)	Comply with Table 1 NOx requirements for new turbine firing natural	Y	
	gas, electric generating turbine > 50 MMbtu/hr and ≤ 850 MMBtu/hr:		
	25 ppm at 15% O2		
60.4320(h)	30-day rolling average for combined cycle plants	Y	
60.4330	What emission limits must I meet for sulfur dioxide (SO2)?	Y	
60.4330(a)	Turbines located in continental area must comply with (a)(1), (a)(2),	Y	
	or (a)(3)		
60.4330(a)(2)	SO2 emissions to not exceed 0.060 lb/MMBtu	Y	
60.4333	What are my general requirements for complying with this subpart?	Y	

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## IV. Source-specific Applicable Requirements

# Table IV - A Source-specific Applicable Requirements S-1, S-2, S-3 & S-4 COMBUSTION GAS TURBINES

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
60.4333(a)	General Requirements for operation and maintenance	Y	
60.4335	How do I demonstrate compliance for NOX if I use water or steam injection?	Y	
60.4335(b)(1)	NOx and CO2 or O2 CEMs to determine NOx emissions	Y	
60.4345	What are the requirements for the continuous emission monitoring system equipment, if I choose to use this option?	Y	
60.4345(a)	NOx CEMs installed and certified pursuant to Performance Specification 2 in appendix B, or appendix A of Part 75. RATA of the CEMs is required.	Y	
60.4345(b)	NOx CEMs operating requirements	Y	
60.4345(c)	Fuel flow meter requirements	Y	
60.4345(d)	Steam flow meter, pressure and temperature device requirements	Y	
60.4345(e)	QA plan for CEMs, flow meters, and pressure and temperature devices	Y	
60.4350	How do I use data from the continuous emission monitoring equipment to identify excess emissions?	Y	
60.4365	How can I be exempted from monitoring the total sulfur content of the fuel?	Y	
60.4365(a)	Exemption from sulfur content monitoring for firing natural gas with less than 20 grains of sulfur per 100 scf	Y	
60.4375	What reports must I submit?	Y	
60.4375(a)	Reporting requirements in accordance with 60.7(c)	Y	
60.4380	How are excess emissions and monitor downtime defined for NOX?	Y	
60.4380(b)	NOx excess emissions and downtime for turbines with CEMs	Y	
60.4395	When must I submit my reports? All reports must be postmarked by the 30th day following the end of each 6-month period	Y	
60.4400	NOx initial and subsequent performance test requirements and methodologies	Y	
60.4405	Alternative NOx initial performance test for turbines with NOx CEMs	Y	
60.4415	SO2 initial and subsequent performance test requirements and methodologies	Y	
60.4420	Definitions	Y	

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## IV. Source-specific Applicable Requirements

# Table IV - A Source-specific Applicable Requirements S-1, S-2, S-3 & S-4 COMBUSTION GAS TURBINES

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
40 CFR 60,	Performance Specifications	Y	Dute
Appendix B			
Performance	Specifications and test procedures for SO <sub>2</sub> and NO <sub>x</sub> continuous	Y	
Specification 2	emission monitoring systems in stationary sources		
Performance	Specifications and test procedures for O2 and CO2 continuous	Y	
Specification 3	emission monitoring systems		
40 CFR 60, Appendix F	<b>Quality Assurance Procedures</b>		
Procedure 1	Quality assurance requirements for gas continuous emission monitoring systems used for compliance determination	Y	
40 CFR	Permits Regulation (Title IV – Acid Rain Program)	Y	
Part 72			
	Subpart A – Acid Rain Program General Requirements		
72.6	Applicability	Y	
72.6(a)(3)(i)	New utility unit (at the time of commencement of commercial operation)	Y	
72.9	Standard Requirements	Y	
72.9(a)	Permit Requirements	Y	
72.9(a)(1)(i)	Submittal of a complete acid rain permit application	Y	
72.9(a)(1)(iii)	Submittal of information in a timely manner	Y	
72.9(a)(2)(i)	Operation in compliance with Acid Rain permit	Y	
72.9(a)(2)(ii)	Have an Acid Rain Permit	Y	
72.9(b)	Monitoring Requirements	Y	
72.9(c)	Sulfur Dioxide Requirements	Y	
72.9(c)(1)	Requirement to hold allowances as of allowance transfer deadline	Y	
72.9(c)(2)	Each ton of excess SO2 emissions is a separate violation of the CAA	Y	
72.9(c)(3)	Initial deadline to hold allowances	Y	
72.9(c)(3)(iv)	Deadline at time of monitor certification	Y	
72.9(c)(4)	Use of Allowance Tracking System	Y	
72.9(c)(5)	Allowances may not be deducted prior to year for which allowance was allocated	Y	
72.9(c)(6)	Limited authorization	Y	

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## IV. Source-specific Applicable Requirements

# Table IV - A Source-specific Applicable Requirements S-1, S-2, S-3 & S-4 COMBUSTION GAS TURBINES

Applicable	Regulation Title or	Federally Enforceable	Future Effective
Requirement	Description of Requirement	(Y/N)	Date
72.9(d)	Nitrogen Oxide Requirements	Y	
72.9(e)	Excess emissions requirements	Y	
72.9(f)	Recordkeeping and Reporting Requirements	Y	
72.9(g)	Liability	Y	
72.9(h)	Effect on Other Authorities	Y	
	Subpart C – Acid Rain Permit Applications		
72.30(a)	Requirement to apply	Y	
72.30(c)	Duty to reapply. Requirement to submit complete acid rain application 6 months prior to expiration of current acid rain permit.	Y	
72.31	Information requirements for Acid Rain permit applications	Y	
72.31(a)	Identification of affected source	Y	
72.31(b)	Identification of each affected emissions unit	Y	
72.31(c)	Complete compliance plan	Y	
72.31(d)	Standard requirements under 40 CFR 72.9	Y	
72.31(e)	If the Acid Rain permit application is for Phase II and the unit is a new unit, the date that the unit has commenced or will commence operation and the deadline for monitor certification.	Y	
72.32	Permit application shield and binding effect of permit application	Y	
	Subpart E – Acid Rain Permit Contents		
72.50	General	Y	
72.50(a)	Acid Rain Permits	Y	
72.50(a)(1)	Permits must contain all elements of complete Acid Rain Application under 40 CFR 72.31	Y	
72.50(b)	Permits include terms in 40 CFR 72.2	Y	
72.51	Permit Shield	Y	
40 CFR	Continuous Emissions Monitoring	Y	
Part 75			
	Subpart A – General	Y	
75.2	Applicability	Y	
75.2(a)	Applicability to affected units subject to Acid Rain emission limitations	Y	

## IV. Source-specific Applicable Requirements

# Table IV - A Source-specific Applicable Requirements S-1, S-2, S-3 & S-4 COMBUSTION GAS TURBINES

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
75.2(c)	The provisions of this part apply to sources subject to a State or	Y	
	federal NO <sub>X</sub> mass emission reduction program, to the extent these		
	provisions are adopted as requirements under such a program		
75.4	Compliance Dates	Y	
75.4(b)	New affected unit (at the time of the commencement of commercial operation) shall ensure that all monitoring systems required under this part for monitoring of SO <sub>2</sub> , NO <sub>X</sub> , CO <sub>2</sub> , opacity, and volumetric flow are installed and all certification tests are completed on or before the later of the following dates	Y	
75.4(b)(2)	The earlier of 90 unit operating days or 180 calendar days after the date the unit commences commercial operation, notice of which date shall be provided under subpart G of this part.	Y	
75.5	Prohibitions	Y	
	Subpart B – Monitoring Provisions	Y	
75.10	General Operating Requirements	Y	
75.10(a)	Primary Measurement Requirement	Y	
75.10(a)(1)	SO2 Emissions, except as provided in §§75.11 and 75.16 and subpart E of this part	Y	
75.10(a)(2)	NOx Emissions, except as provided in §§75.12 and 75.17 and subpart E of this part	Y	
75.10(a)(3)	CO2 Emissions	Y	
75.10(a)(3)(ii)	CO2 Emissions estimated using Carbon Content of fuel and procedures in Appendix G.	Y	
75.10 (a)(4)	Opacity Monitoring, except as provided in §§75.14 and 75.18	Y	
75.10(b)	Primary Equipment Performance Requirements	Y	
75.10(c)	Heat Input Rate Measurement Requirement	Y	
75.10(d)	Primary equipment hourly operating requirements	Y	
75.10(d)(1)	Cycles of operation for each 15 minute period. Hourly average calculated from a minimum of four 15 minute periods.	Y	
75.10(d)(3)	Validity of data and data substitution	Y	
75.10(f)	Minimum measurement capability requirement	Y	
75.10(g)	Minimum recording and recordkeeping requirements	Y	
75.11	Specific provisions for monitoring SO <sub>2</sub> emissions	Y	

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# Table IV - A Source-specific Applicable Requirements S-1, S-2, S-3 & S-4 COMBUSTION GAS TURBINES

Applicable	Regulation Title or	Federally Enforceable	Future Effective
Requirement	Description of Requirement	(Y/N)	Date
75.11(d)	Gas-fired and oil-fired units	Y	
75.11(d)(2)	Allows the use of Appendix D Optional SO2 Emissions Data Protocol	Y	
	for Gas-Fired and Oil-Fired Units to monitor SO2 emissions.		
75.12	Specific provisions for monitoring NOx emission rate	Y	
75.12(a)	NOx continuous emission monitor and diluents monitoring requirement	Y	
75.12(c)	NOx mass emission rate determination according to Appendix F	Y	
75.13	Specific provisions for monitoring CO2 emissions	Y	
75.13(b)	Determination of CO2 emissions using Appendix G	Y	
75.14	Specific Provisions for monitoring opacity	Y	
75.14(c)	Gas-Fired Units Exempt from Opacity Monitoring	Y	
	Subpart C – Operation and Maintenance Requirements	Y	
75.20	Initial certification and recertification procedures	Y	
75.20(a)	Initial certification and approval process	Y	
75.20(b)	Recertification approval process	Y	
75.20(c)	Initial certification and recertification procedures	Y	
75.20(g)	Initial certification and recertification procedures for excepted	Y	
	monitoring systems under appendices D and E		
75.21	Quality assurance and quality control requirements	Y	
75.21(a)	Continuous emission monitoring systems	Y	
75.21(c)	Calibration gases	Y	
75.21(d)	Notification for periodic Relative Accuracy Test Audits	Y	
75.21(e)	Consequences of audits	Y	
75.22	Reference test methods	Y	
75.24	Out-of-control periods and adjustment for system bias	Y	
	Subpart D – Missing Data Substitution Procedures	Y	
75.30	General Provisions	Y	
75.30(a)	Owner/operator shall provide substitute data for each affected unit using a continuous emission monitor according to this subpart whenever the unit is combusting fuel.	Y	
75.31	Initial missing data procedures	Y	

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## IV. Source-specific Applicable Requirements

# Table IV - A Source-specific Applicable Requirements S-1, S-2, S-3 & S-4 COMBUSTION GAS TURBINES

		Federally	Future
Applicable	Regulation Title or	Enforceable	Effective
Requirement	Description of Requirement	(Y/N)	Date
75.32	Determination of monitor data availability for standard missing data procedures	Y	
75.33	Standard missing data procedures for SO2, NOx, Hg, and flow rate	Y	
75.33(a)	Following initial certification and after following initial missing data procedures for 2,160 quality assured operating hours for NOx continuous emissions monitors system the owner/operator shall follow the data substitution procedures in paragraph (b) and (c) of this section.	Y	
75.33(c)	Volumetric flow rate, NOx emission rate and NOx concentration data	Y	
75.34	Units with add-on emission controls	Y	
75.35	Missing data procedures for CO2	Y	
75.36	Missing data procedures for heat input rate determinations	Y	
	Subpart F – Recordkeeping Requirements	Y	
75.53	Monitoring plan	Y	
75.53(a)	General provisions	Y	
75.53(b)	Updates to monitoring plan	Y	
75.53(e)	Contents of monitoring plan	Y	
75.53(f)	Contents of monitoring plan for specific situations	Y	
75.53(g)	Contents of the monitoring plan after January 1, 2009	Y	
75.53(h)	Contents of monitoring plan for specific situations	Y	
75.57	General recordkeeping provisions	Y	
75.57(a)	General recordkeeping provisions for affected sources	Y	
75.57(b)	Operating parameter record provisions. The owner or operator shall record for each hour the following information on unit operating time, heat input rate, and load, separately for each affected unit.	Y	
75.57(c)	SO2 emission record provisions	Y	
75.57(d)	NOx emission record provisions	Y	
75.57(e)	CO2 emission record provisions	Y	
75.57(g)	Diluents record provisions	Y	
75.57(h)	Missing data records	Y	
75.58	General recordkeeping provisions for specific situations	Y	

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## IV. Source-specific Applicable Requirements

Table IV - A
Source-specific Applicable Requirements
S-1, S-2, S-3 & S-4 COMBUSTION GAS TURBINES

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
75.58(b)	Specific parametric data record provisions for calculating substitute emissions data for units with add-on emission controls	Y	
75.58(c)	Specific SO2 emission record provisions for gas-fired or oil-fired units using optional protocol in appendix D to this part. In lieu of recording the information in §75.57(c), the owner or operator shall record the applicable information in this paragraph for each affected gas-fired or oil-fired unit for which the owner or operator is using the optional protocol in appendix D to this part for estimating SO2 mass emissions	Y	
75.59	Certification, quality assurance, and quality control record provisions	Y	
75.59(a)	Continuous emission or opacity monitoring systems	Y	
75.59(b)	Accepted monitoring systems for gas-fired and oil-fired units. The owner or operator shall record the applicable information in this section for each excepted monitoring system following the requirements of appendix D to this part or appendix E to this part for determining and recording emissions from an affected unit.	Y	
75.59(c)	Except as otherwise provided in §75.58(b)(3)(i), units with add-on SO <sub>2</sub> or NO <sub>X</sub> emission controls following the provisions of §75.34(a)(1) or (a)(2), and for units with add-on Hg emission controls, the owner or operator shall keep the following records onsite in the quality assurance/quality control plan required by section 1 of appendix B to this part:	Y	
75.59(e)	DAHS Verification. For each DAHS (missing data and formula) verification that is required for initial certification, recertification, or for certain diagnostic testing of a monitoring system, record the date and hour that the DAHS verification is successfully completed. (This requirement only applies to units that report monitoring plan data in accordance with §75.53(g) and (h).)	Y	
	Subpart G – Reporting Requirements	Y	
75.60	General Provisions	Y	
75.61	Notifications	Y	
75.62	Monitoring plan submittals	Y	
75.63	Initial certification or recertification application	Y	
75.64	Quarterly reports	Y	

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# Table IV - A Source-specific Applicable Requirements S-1, S-2, S-3 & S-4 COMBUSTION GAS TURBINES

		Federally	Future
Applicable	Regulation Title or	Enforceable	Effective
Requirement	Description of Requirement	(Y/N)	Date
75.66	Petitions to the administrator	Y	
BAAQMD	Conditions to the Permit to Operate for S-1 Combustion Gas		
Condition	Turbine		
#24955			
Equipment	Equipment Description	Y	
Description			
Definitions	Definitions	Y	
Part 1	Emissions Minimization during commissioning period (BACT,	Y	
	Regulation 2-2)		
Part 2	Tuning to minimize emissions (BACT, Regulation 2-2)	Y	
Part 3	Installation, and Operation of SCR and Oxidation Catalyst (BACT,	Y	
	Regulation 2-2)		
Part 4	Submittal of Commissioning Plan (BACT, Regulation 2-2)	Y	
Part 5	Continuous Emission Monitors and Recorders (9-9-501, BACT,	Y	
	Regulation 2-2)		
Part 6	Monitors Prior to first firing (9-9-501, BACT, Regulation 2-2)	Y	
Part 7	Compliance with NOx and CO Emission Limits (BACT, Regulation 2-2)	Y	
Part 8	Mass Emission Rates (Regulation 2-2)	Y	
Part 9	Emission Limits (BACT, Regulation 2-2)	Y	
Part 10	Source Test for NOx, CO, and POC (BACT for NOx and CO, Offsets, Regulation 2-2)	Y	
Part 11	Emission Limits for Sulfur (BACT for SO <sub>2</sub> , PM <sub>10</sub> )	Y	
Part 12	Hourly Firing Rate (Regulation 2-2)	Y	
Part 13	Daily Firing Rate (Cumulative Increase for PM10, Regulation 2-2)	Y	
Part 14	Yearly Firing Rate (Offsets, Regulation 2-2)	Y	
Part 15 a	Hourly Operational Limits (Regulation 2-2)	Y	
Part 15 b	Yearly Operational Limits (Offsets, Cumulative Increase)	Y	
Part 16	Abatement (BACT for NOx, POC, CO)	Y	
Part 17 (a)	NOx Emission Limits (BACT, Regulation 2-5, Regulation 2-2)	Y	
Part 17 (b)	NOx Emission Limits (BACT, Regulation 2-5, Regulation 2-2)	Y	
Part 17 (c)	CO Emission Limits (BACT, Regulation 2-5, Regulation 2-2)	Y	

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# Table IV - A Source-specific Applicable Requirements S-1, S-2, S-3 & S-4 COMBUSTION GAS TURBINES

Applicable	Regulation Title or	Federally Enforceable	Future Effective
Requirement	Description of Requirement	(Y/N)	Date
Part 17 (d)	CO Emission Limits (BACT, Regulation 2-5, Regulation 2-2)	Y	
Part 17 (e)	NH3 Emission Limits (BACT, Regulation 2-5, Regulation 2-2)	N	
Part 17 (f)	POC Emission Limits (BACT, Regulation 2-5, Regulation 2-2)	Y	
Part 17 (g)	SO2 Emission Limits (BACT, Regulation 2-5, Regulation 2-2)	Y	
Part 18	Mass Emission Limits for NOx, CO and POC during Turbine Startup or Shutdown (BACT)	Y	
Part 19	Combined Mass Emission Limits (Cumulative Increase)	Y	
Part 20	Combined Mass Emission and Malfunction Limits (Offsets, Cumulative Increase)	Y	
Part 21	Toxic Limits (Regulation 2-5)	N	
Part 22	Continuous Emission Monitoring (BACT, Offsets, NSPS, Cumulative increase)	Y	
Part 23	Emissions Records for POC, PM10, and SO2 (Offsets, Cumulative Increase)	Y	
Part 24	Toxic Records (Regulation 2-5)	N	
Part 25	Source Testing for Ammonia (NH <sub>3</sub> ) (Regulation 2-5)	N	
Part 26	Source Testing for NOx, CO, POC, and SO <sub>2</sub> (BACT, Offsets)	Y	
Part 27	Source Test Notification (BACT and Regulation 2-2)	Y	
Part 28	Source Testing for Toxics (Regulation 2-5)	N	
Part 29	Source Testing for Sulfuric Acid (Regulation 2-2)	Y	
Part 30	Source Testing for SO2, SO3, and H2SO4 (Regulation 2-2)	Y	
Part 31	Sulfuric Acid Limits (Regulation 2-2)	Y	
Part 32	Stack Height (Regulation 2-5)	Y	
Part 33	Reporting (Manual of Procedure, Regulation 2-1)	Y	
Part 34	Maintaining Records (Regulation 2-1, Regulation 2-6)	Y	
Part 35	Violation Notification (Manual of Procedure, Regulation 2-1)	Y	
Part 36	Source Testing Ports (Manual of Procedure, Regulation 1-1)	Y	
Part 37	Requirements for Continuous Emission Monitoring, Sampling Ports, Platforms, and Source Test (Regulation 1-1)	Y	
Part 38	SO <sub>2</sub> Allowances (Regulation 2-7)	Y	

## Table IV – B Source-specific Applicable Requirements S-6 DIESEL FIREWATER PUMP

		Federally	Future
Applicable	Regulation Title or	Enforceable	Effective
Requirement	Description of Requirement	(Y/N)	Date
BAAQMD			
Regulation 6	Particulate Matter General requirements (12/05/07)		
Rule 1			
6-1-302	Ringelmann No. 2 Limitation	N	
6-1-305	Visible Particulates	N	
6-1-310	Particulate Weight Limitation	N	
6-1-401	Appearance of Emissions	N	
SIP	Particulate Matter and Visible Emissions (09/04/98)		
Regulation 6			
6-302	Ringelmann Number 2 Limitation	Y	
6-305	Visible Particles	Y	
6-310	Particulate Weight Limitation	Y	
6-401	Appearance of Emissions	Y	
BAAQMD	Inorganic Gaseous Pollutants, Sulfur Dioxide (3/15/95)		
Regulation			
9, Rule 1			
9-1-301	Limitations on Ground Level Concentrations	Y	
9-1-304	Fuel Burning (Liquid and Solid Fuels)	Y	
BAAQMD	Inorganic Gaseous Pollutants (7/25/07)		
Regulation			
9, Rule 8			
9-8-110.5	Limited Exemption Emergency Standby Engines	N	
9-8-330	Emergency Standby Engines, Hours of Operation	N	
9-8-330.1	Unlimited hours for emergency use	N	
9-8-330.3	50 hours for reliability and maintenance	N	
9-8-502	Recordkeeping	N	
9-8-502.1	Monthly records of usage	N	
9-8-530	Emergency standby engines, monitoring and recordkeeping	N	
40 CFR 60	Standards of Performance for New Stationary Sources - General	Y	
Subpart A	<b>Provisions</b> (1/28/09)		
60.7	Notification and Recordkeeping	Y	
60.8	Performance Tests	Y	
60.9	Availability of Information	Y	
60.11(a)	Compliance with standards in this part	Y	
60.11(d)	Minimizing emissions	Y	
60.12	Circumvention	Y	

## IV. Source-specific Applicable Requirements

## Table IV – B Source-specific Applicable Requirements S-6 DIESEL FIREWATER PUMP

		Federally	Future
Applicable	Regulation Title or	Enforceable	Effective
Requirement	Description of Requirement	(Y/N)	Date
60.13	Monitoring Requirements	Y	
60.19	General notification and reporting requirements	Y	
40 CFR Part 60	Standards of Performance for Stationary Compression Ignition	Y	
Subpart IIII	Internal Combustion Engines		
60.4200	Am I subject to this subpart?	Y	
60.4200(a)	Applicability to certified fire pump engines manufactured after July 1, 2006.	Y	
60.4205	What emission standards must I meet for emergency engines if I am an owner or operator of a stationary CI internal combustion engine?	Y	
60.4205(c)	Owners and operators of fire pump engines with a displacement of less than 30 liters per cylinder must comply with the emission standards in table 4 to this subpart, for all pollutants.	Y	
60.4207	What fuel requirements must I meet if I am an owner or operator of a stationary CI internal combustion engine subject to this subpart?	Y	
60.4207(b)	Beginning October 1, 2010, owners and operators of stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel must purchase diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel.	Y	
60.4211	What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?	Y	
60.4211(a)	If you are an owner or operator and must comply with the emission standards specified in this subpart, you must do all of the following, except as permitted under paragraph (g) of this section:  (63) Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions;	Y	
	<ul><li>(2) Change only those emission-related settings that are permitted by the manufacturer; and</li><li>(3) Meet the requirements of 40 CFR parts 89, 94</li></ul>		
	and/or 1068, as they apply to you.		

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## IV. Source-specific Applicable Requirements

## Table IV – B Source-specific Applicable Requirements S-6 DIESEL FIREWATER PUMP

		Federally	Future
Applicable	Regulation Title or	Enforceable	Effective
Requirement	Description of Requirement	(Y/N)	Date
60.4211(c)	If you are an owner or operator of a CI fire pump engine that is manufactured during or after the model year that applies to your fire pump engine power rating in table 3 to this subpart and must comply with the emission standards specified in § 60.4205c, you must comply by purchasing an engine certified to the emission standards in § 60.4204(b), or § 60.4205(b) or (c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in paragraph (g) of this section.	Y	
60.4211(f)	Maintenance and readiness testing limited to 100 hours/year unless owner/operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours/year.	Y	
60.4214	What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary CI internal combustion engine?	Y	
40 CFR Part 63	National Emissions Standards for Hazardous Air Pollutants for		
Subpart ZZZZ	Stationary Reciprocating Internal Combustion Engines (RICE)		
63.6585	Applicability	Y	
63.6585(a)	Applicable to stationary RICE	Y	
63.6585(c)	Applicable to area sources of HAPs	Y	
63.6590 (c) (1)	New or reconstructed stationary RICE located at an area source.	Y	
CCR, Title 17, Section 93115	ATCM for Stationary Compression Ignition Engines	N	
93115.5 (b)	Fuel Requirements	N	
93115.6	ATCM for Stationary CI Engines – Emergency Standby Diesel-Fueled CI Engine (>50 bhp) Operating Requirements and Emission Standards	N	
93115.6(b)	In-Use Emergency Standby Diesel-Fueled CI Engine (> 50 bhp) Operating Requirements and Emission Standards	N	
93115.10	Recordkeeping, Reporting and Monitoring Requirements	N	
93115.10(a)	Reporting	N	
93115.10(c)	Demonstration of Compliance with Emission Limits	N	
93115.10(e)(1)	Monitoring Equipment	N	
93115.10(g)	Reporting Requirements for Emergency Standby Engines	N	

## IV. Source-specific Applicable Requirements

## Table IV – B Source-specific Applicable Requirements S-6 DIESEL FIREWATER PUMP

		Federally	Future
Applicable	Regulation Title or	Enforceable	Effective
Requirement	Description of Requirement	(Y/N)	Date
93115.11	ATCM for Stationary CI Engines – Compliance Schedule for Owners	N	
	or Operators of Three or Fewer Engines (>50 bhp) Located within a		
	District		
93115.15	Severability	N	
BAAQMD	Conditions to the Permit to Operate for S-6 Diesel Firewater		
Condition #22850	Pump		
Part 1	Duration for reliability-related testing [Basis: "Stationary Diesel	N	
	Engine ATCM" section 93115]		
Part 2	Mitigate emergency conditions [Basis: "Stationary Diesel Engine	N	
	ATCM" section 93115]		
Part 3	Engine Run-time totalizing meter [Basis: "Stationary Diesel Engine	N	
	ATCM" section 93115]		
Part 4	Record keeping (Cumulative Increase)	N	
Part 5	School boundaries. [Basis: "Stationary Diesel Engine ATCM" section	N	
	93115]		

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### V. SCHEDULE OF COMPLIANCE

The permit holder shall comply with all applicable requirements cited in this permit. The permit holder shall also comply with applicable requirements that become effective during the term of this permit on a timely basis.

#### VI. PERMIT CONDITIONS

The District is proposing the following permit conditions to ensure that the project complies with all applicable District, state, and federal Regulations. The proposed conditions would limit operational parameters such as fuel use, stack gas emission concentrations, and mass emission rates. The permit conditions specify abatement device operation and performance levels. To aid enforcement efforts, conditions specifying emission monitoring, source testing, and record keeping requirements are included. Furthermore, pollutant mass emission limits (in units of lb/hr) will insure that daily and annual emission rate limitations are not exceeded.

To provide maximum operational flexibility, no limitations are being proposed on the type or quantity of gas turbine start-ups or shutdowns. Instead, the facility would be required to comply with daily and annual (consecutive twelve-month) mass emission limits at all times. Compliance with CO and NO<sub>x</sub> limitations would be verified by continuous emission monitors (CEMs) that will be in operation during all turbine operating modes, including start-up, shutdown, commissioning, and transient conditions. Compliance with POC, SO<sub>2</sub>, and PM<sub>10</sub> mass emission limits would be verified by annual source testing.

In addition to permit conditions that apply to steady-state operation of each gas turbine power train, the District is proposing conditions that govern equipment operation during the initial commissioning period when the gas turbine power trains will operate without their SCR systems and/or oxidation catalysts in place. Commissioning activities include, but are not limited to, the testing of the gas turbines, and adjustment of control systems. Parts 1 through 10 of the proposed permit conditions for the simple-cycle gas turbines apply to this commissioning period and are intended to minimize emissions during the commissioning period.

Following are the proposed Mariposa Energy Project combustion equipment and the abatement devices regulated by the District.

Condition #24955: Mariposa Energy Project Combustion Equipment and Abatement Devices

- S-1 Combustion Turbine Generator (CTG) #1, GE LM 6000 PC-Sprint, Natural Gas Fired, with high efficiency inlet air filtration, 50 MW (nominal), 500 MMbtu/hr maximum rated capacity (HHV); abated by A-1 Oxidation Catalyst and A-2 Selective Catalytic Reduction System (SCR).
- S-2 Combustion Turbine Generator (CTG) #2, GE LM 6000 PC-Sprint, Natural Gas Fired, with high efficiency inlet air filtration, 50 MW (nominal), 500 MMbtu/hr maximum rated capacity (HHV); abated by A-3 Oxidation Catalyst and A-4 Selective Catalytic Reduction System (SCR).

#### VI. Permit Conditions

- S-3 Combustion Turbine Generator (CTG) #3, GE LM 6000 PC-Sprint, Natural Gas Fired, with high efficiency inlet air filtration, 50 MW (nominal), 500 MMbtu/hr maximum rated capacity (HHV); abated by A-5 Oxidation Catalyst and A-6 Selective Catalytic Reduction System (SCR).
- S-4 Combustion Turbine Generator (CTG) #4, GE LM 6000 PC-Sprint, Natural Gas Fired, with high efficiency inlet air filtration, 50 MW (nominal), 500 MMbtu/hr maximum rated capacity (HHV); abated by A-7 Oxidation Catalyst and A-8 Selective Catalytic Reduction System (SCR).
- S-6 Diesel Fire Pump: Make: John Deere; Model: JU6H-M8; Model Year: TBD (2009 or later); Rated bhp: 175

#### **Definitions:**

Hour: Any continuous 60-minute period

Clock Hour: Any continuous 60-minute period beginning on the hour

Calendar Day: Any continuous 24-hour period beginning at 12:00 AM or 0000

hours

Year: Any consecutive twelve-month period of time

Rolling 3-hour period: Any consecutive three hour period, not including start-up or

shutdown periods

Rolling 3-hour period

for CO:

Any consecutive three-hour period, not including commissioning, start-up or shutdown periods. Rolling 3-hour periods shall be calculated

for normal steady state operation. The minutes shall be summed across normal operating periods and days until 180 minutes have accrued. Compliance with the CO limit shall be based on this 3-hour period. After each 3-hour period has elapsed, a new 3-hour period begins every

60 minutes after the beginning of the previous 3-hour period.

Heat Input: All heat inputs refer to the heat input at the higher heating value (HHV)

of the fuel, in BTU/scf

Firing Hours: Period of time during which fuel is flowing to a unit, measured in

minutes

MMbtu: million British thermal units

Gas Turbine

Start-up Mode: The lesser of the first 30 minutes of continuous fuel flow to the Turbine

after fuel flow is initiated or the period of time from Gas Turbine fuel flow initiation until the Gas Turbine achieves two consecutive CEM data

points in compliance with the emission concentration limits of

conditions 17(b) and 17(d).

Gas Turbine

Shutdown Mode: The lesser of the 15 minute period immediately prior to the termination

of fuel flow to the Gas Turbine or the period of time from non-

#### VI. Permit Conditions

compliance with any requirement listed in Conditions 17(b) and 17(d) until termination of fuel flow to the Gas Turbine

Gas Turbine Combustor

Specified PAHs: The polycyclic aromatic hydrocarbons listed below shall be considered

to be Specified PAHs for these permit conditions. Any emission limits for Specified PAHs refer to the sum of the emissions for all six of the

following compounds
Benzo[a]anthracene
Benzo[b]fluoranthene
Benzo[k]fluoranthene
Benzo[a]pyrene

Dibenzo[a,h]anthracene Indeno[1,2,3-cd]pyrene

Corrected

Concentration: The concentration of any pollutant (generally NO<sub>x</sub>, CO, or NH<sub>3</sub>)

corrected to a standard stack gas oxygen concentration. For emission points P-1 (exhaust of S-1 Gas Turbine), P-2 (exhaust of S-2 Gas Turbine) P-3 (exhaust of S-3 Gas Turbine), P-4 (exhaust of S-4 Gas Turbine), the standard stack gas oxygen concentration is 15% O<sub>2</sub> by

volume on a dry basis

Commissioning

Activities: All testing, adjustment, initial tuning, and calibration activities

recommended by the equipment manufacturers and the MEP

construction contractor to insure safe and reliable steady-state operation of the gas turbines, and associated electrical delivery systems during the

commissioning period

Commissioning

Period: For each turbine, the period shall commence when all mechanical,

electrical, and control systems are installed and individual system startup has been completed, or when the gas turbine is first fired, whichever occurs first. The period shall terminate when the plant has completed

performance testing for the turbine, the turbine is available for

commercial operation, and the owner/operator has initiated sales to the

power exchange from that turbine.

Precursor Organic

Compounds (POCs): Any compound of carbon, excluding methane, ethane, carbon monoxide,

carbon dioxide, carbonic acid, metallic carbides or carbonates, and

ammonium carbonate

CEC CPM: California Energy Commission Compliance Program Manager

MEP: Mariposa Energy Project

**Total Particulate** 

Matter: The sum of all filterable and all condensable particulate matter.

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#### **Applicability:**

Parts 1 through 10 of this condition shall only apply during the commissioning period as defined above. Unless otherwise indicated, Parts 11 through 38 of this condition shall apply after the commissioning period has ended.

- 1. The owner/operator of the MEP shall minimize emissions of carbon monoxide and nitrogen oxides from S-1, S-2, S-3 and S-4 Gas Turbines to the maximum extent possible during the commissioning period. (Basis: BACT, Regulation 2, Rule 2, Section 409)
- 2. At the earliest feasible opportunity in accordance with the recommendations of the equipment manufacturers and the construction contractor, the owner/operator shall tune the S-1, S-2, S-3 and S-4 Gas Turbines combustors to minimize the emissions of carbon monoxide and nitrogen oxides. (Basis: BACT, Regulation 2, Rule 2, Section 409)
- 3. At the earliest feasible opportunity in accordance with the recommendations of the equipment manufacturers and the construction contractor, the owner/operator shall install, adjust, and operate the A-1, A-3, A-5 and A-7 Oxidation Catalysts and A-2, A-4, A-6 and A-8 SCR Systems to minimize the emissions of carbon monoxide and nitrogen oxides from S-1, S-2, S-3, and S-4 Gas Turbines. (Basis: BACT, Regulation 2, Rule 2, Section 409)
- 4. The owner/operator of the MEP shall submit a plan to the District Engineering Division and the CEC CPM at least four weeks prior to first firing of S-1, S-2, S-3, and S-4 Gas Turbines describing the procedures to be followed during the commissioning of the gas turbines. The plan shall include a description of each commissioning activity, the anticipated duration of each activity in hours, and the purpose of the activity. The activities described shall include, but not be limited to, the initial tuning of the combustors, the installation and operation of the required emission control systems, the installation, calibration, and testing of the CO and NOx continuous emission monitors, and any activities requiring the firing of the Gas Turbines (S-1, S-2, S-3 & S-4) without abatement by their respective oxidation catalysts and/or SCR Systems. The owner/operator shall not fire any of the Gas Turbines (S-1, S-2, S-3 or S-4) sooner than 28 days after the District receives the commissioning plan. (Basis: Regulation 2, Rule 2, Section 419)
- 5. During the commissioning period, the owner/operator of the MEP shall demonstrate compliance with Parts 7, 8, 9, and 10 through the use of properly operated and maintained continuous emission monitors and data recorders for the following parameters and emission concentrations:

firing hours fuel flow rates

### VI. Permit Conditions

stack gas nitrogen oxide emission concentrations, stack gas carbon monoxide emission concentrations stack gas oxygen concentrations.

The monitored parameters shall be recorded at least once every 15 minutes (excluding normal calibration periods or when the monitored source is not in operation) for the Gas Turbines (S-1, S-2, S-3, and S-4). The owner/operator shall use District-approved methods to calculate heat input rates, nitrogen dioxide mass emission rates, carbon monoxide mass emission rates, and NOx and CO emission concentrations, summarized for each clock hour and each calendar day. The owner/operator shall retain records on site for at least 5 years from the date of entry and make such records available to District personnel upon request. (Basis: Regulation 2, Rule 2, Section 419)

- 6. The owner/operator shall install, calibrate, and operate the District-approved continuous monitors specified in Part 5 prior to first firing of the Gas Turbines (S-1, S-2, S-3 and S-4). After first firing of the turbines, the owner/operator shall adjust the detection range of these continuous emission monitors as necessary to accurately measure the resulting range of CO and NOx emission concentrations. The instruments shall operate at all times of operation of S-1, S-2, S-3, and S-4 including start-up, shutdown, upset, and malfunction, except as allowed by BAAQMD Regulation 1-522, BAAQMD Manual of Procedures, Volume V. If necessary to comply with this requirement, the owner/operator shall install dual-span monitors. The type, specifications, and location of these monitors shall be subject to District review and approval. (Basis: Regulation 2, Rule 2, Section 419)
- 7. The owner/operator shall not fire S-1, S-2, S-3, or S-4 Gas Turbine without abatement of nitrogen oxide emissions by the corresponding SCR System A-2, A-4, A-6, or A-8 and/or abatement of carbon monoxide emissions by the corresponding Oxidation Catalyst A-1, A-3, A-5, or A-7 for more than 200 hours each during the commissioning period. Such operation of any Gas Turbine (S-1, S-2, S-3, S-4) without abatement shall be limited to discrete commissioning activities that can only be properly executed without the SCR system and/or oxidation catalyst in place. Upon completion of these activities, the owner/operator shall provide written notice to the District Engineering and Enforcement Divisions and the unused balance of the 200 firing hours for each turbine without abatement shall expire. (Basis: BACT, Regulation 2, Rule 2, Section 409)
- 8. The total mass emissions of nitrogen oxides, carbon monoxide, precursor organic compounds, PM10, and sulfur dioxide that are emitted by the Gas Turbines (S-1, S-2, S-3, and S-4) during the commissioning period shall accrue towards the consecutive twelve-month emission limitations specified in Part 20. (Basis: Regulation 2, Rule 2, Section 409)
- 9. The owner/ operator shall not operate the Gas Turbines (S-1, S-2, S-3, and S-4) in a manner such that the combined pollutant emissions from the gas turbines will exceed the

# VI. Permit Conditions

following limits during the commissioning period. These emission limits shall include emissions resulting from the start-up and shutdown of the Gas Turbines (S-1, S-2, S-3, S-4). In addition, commissioning activities will be conducted on no more than one turbine/day. (Basis: BACT, Regulation 2, Rule 2, Section 409)

NOx (as NO2): 16.3 tons per year CO: 8.7 tons per year POC (as CH4): 1.0 ton per year

PM10: 1.0 ton per year SO2: 0.54 ton per year

9a. The owner/ operator shall not operate the Gas Turbines (S-1, S-2, S-3, and S-4) in a manner such that the pollutant emissions from each gas turbine will exceed the following limits during the commissioning period. These emission limits shall include emissions resulting from the start-up and shutdown of the Gas Turbines (S-1, S-2, S-3, S-4). In addition, commissioning activities will be conducted on no more than one turbine/day. (Basis: BACT, Regulation 2, Rule 2, Section 409)

NOx (as NO2): 408 pounds per calendar day

51 pounds per hour

CO: 360 pounds per calendar day

45 pounds per hour

POC (as CH4): 36 pounds per calendar day

PM10: 20 pounds per calendar day SO2: 10.8 pounds per calendar day

10. Within 90 days after start-up of each turbine, the owner/operator shall conduct District and CEC approved source tests on that turbine to determine compliance with the emission limitations specified in Part 17 on that turbine. The source tests shall determine NOx, CO, and POC emissions during start-up and shutdown of the gas turbines. The POC emissions shall be analyzed for methane and ethane to account for the presence of unburned natural gas. The source test shall include a minimum of three start-up and three shutdown periods. Thirty working days before the execution of the source tests, the owner/operator shall submit to the District and the CEC Compliance Program Manager (CPM) a detailed source test plan designed to satisfy the requirements of this Part. The District and the CEC CPM will notify the owner/operator of any necessary modifications to the plan within 20 working days of receipt of the plan; otherwise, the plan shall be deemed approved. The owner/operator shall incorporate the District and CEC CPM comments into the test plan. The owner/operator shall notify the District and the CEC CPM within seven (7) working days prior to the planned source testing date. The owner/operator shall submit the source test results for each turbine to the District and the CEC CPM within 60 days of the source testing date of that turbine. (Basis: Regulation 2, Rule 2, Section 419)

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Conditions #24955 for the GE LM 6000 PC Sprint Simple-Cycle Gas Turbines (S-1, S-2, S-3, and S-4)

- 11. The owner/operator shall fire the Gas Turbines (S-1, S-2, S-3, and S-4) exclusively on PUC-regulated natural gas with a maximum sulfur content of 1 grain per 100 standard cubic feet. To demonstrate compliance with this limit, the operator of S-1, S-2, S-3 and S-4 shall sample and analyze the gas from each supply source at least monthly to determine the sulfur content of the gas. PG&E monthly sulfur data may be used provided that such data can be demonstrated to be representative of the gas delivered to the MEP. (Basis: BACT for SO2 and PM10)
- 12. The owner/operator shall not operate the units such that the heat input rate to each Gas Turbine (S-1, S-2, S-3, and S-4) exceeds 500 MMbtu (HHV) per hour. (Basis: 2-2-409)
- 13. The owner/operator shall not operate the units such that the heat input rate to each Gas Turbine (S-1, S-2, S-3, and S-4) exceeds 12,000 MMbtu (HHV) per day. (Basis: 2-2-409, Cumulative Increase for PM10)
- 14. The owner/operator shall not operate the units such that the combined cumulative heat input rate for the Gas Turbines (S-1, S-2, S-3, and S-4) exceeds 8,128,900 MMbtu (HHV) per year. (Basis: 2-2-409, Offsets)
- 15a. The owner operator shall not operate any turbine S-1, S-2, S-3, or S-4 such that the hours of operation for any of the four units exceeds 5,200 hours per year. (Basis: 2-2-409)
- 15b. The owner operator shall not operate the turbines S-1, S-2, S-3, or S-4 such that the hours of operation for the four units combined exceeds 16,900 hours per year. (Basis: Offsets, Cumulative Increase)
- 16. The owner/operator shall ensure that each Gas Turbine (S-1, S-2, S-3, S-4) is abated by the properly operated and properly maintained Selective Catalytic Reduction (SCR) System A-2, A-4, A-6 or A-8 and Oxidation Catalyst System A-1, A-3, A-5, or A-7 whenever fuel is combusted at those sources and the corresponding SCR catalyst bed (A-2, A-4, A-6 or A-8) has reached minimum operating temperature. (Basis: BACT for NOx, POC and CO)
- 17. The owner/operator shall ensure that the Gas Turbines (S-1, S-2, S-3, S-4) comply with requirements (a) through (i). Requirements (a) through (f) do not apply during a gas turbine start-up, and shutdown. (Basis: BACT and Regulation 2, Rule 5)
  - a) Nitrogen oxide mass emissions (calculated as NO2) at each exhaust point P-1, P-2, P-3, and P-4 (exhaust point for S-1, S-2, S-3 and S-4 Gas Turbine after abatement by

# VI. Permit Conditions

A-2, A-4, A-6 and A-8 SCR System) shall not exceed 4.4 pounds per hour. (Basis: BACT for NOx).

- b) The nitrogen oxide emission concentration at each exhaust point P-1, P-2, P-3 and P-4 shall not exceed 2.5 ppmv, on a dry basis, corrected to 15% O2, averaged over any 1-hour period. (Basis: BACT for NOx)
- c) Carbon monoxide mass emissions at each exhaust point P-1, P-2, P-3, and P-4 shall not exceed 2.14 pounds per hour. (Basis: BACT for CO)
- d) The carbon monoxide emission concentration at each exhaust point P-1, P-2, P-3, and P-4 shall not exceed 2.0 ppmv, on a dry basis, corrected to 15% O2 averaged over any rolling 3-hour period. (Basis: BACT for CO)
- e) Ammonia (NH3) emission concentrations at each exhaust point P-1, P-2, P-3, and P-4 shall not exceed 5 ppmv, on a dry basis, corrected to 15% O2, averaged over any rolling 3-hour period. This ammonia emission concentration shall be verified by the continuous recording of the ammonia injection rate to each SCR System A-2, A-4, A-6, and A-8. The correlation between the gas turbine heat input rates, A-2, A-4, A-6, and A-8 SCR System ammonia injection rates, and corresponding ammonia emission concentration at emission points P-1, P-2, P-3 and P-4 shall be determined in accordance with Part 25 or a District approved alternative method. (Basis: Regulation 2, Rule 5)
- f) Precursor organic compound (POC) mass emissions (as CH4) at each exhaust point P-1, P-2, P-3, and P-4 shall not exceed 0.61 pounds per hour. (Basis: BACT for POC)
- g) Sulfur dioxide (SO2) mass emissions at each exhaust point P-1, P-2, P-3, and P-4 shall not exceed 1.35 pounds per hour. (Basis: BACT for SO2) (Basis: Regulation 2, Rule 2, Section 419)
- 18. The owner/operator shall ensure that the regulated air pollutant mass emission rates from each of the Gas Turbines (S-1, S-2, S-3, and S-4) during a start-up or shutdown does not exceed the limits established below. Startups shall not exceed 30 minutes. Shutdowns shall not exceed 15 minutes. (Basis: BACT Limit for startup and shutdown operation)

	TABLE 39.	STARTUP AND SHUTDOWN	
Pollutant	Maximum Emissions Per Startup (lb/startup)	Maximum Emissions During Hour with Startup and/or Shutdown(lb/hr)	Maximum Emissions Per Shutdown (lb/shutdown)
NOx (as NO2)	14.2	18.5	3.2
CO	14.1	1. 17.3	2.7
POC (as CH4)	1.1	1.4	0.12

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- 19. The owner/operator shall not allow total combined emissions from the Gas Turbines (S-1, S-2, S-3, and S-4), including emissions generated during gas turbine start-ups, and shutdowns to exceed the following limits during any calendar day:
  - (a) 1100 pounds of NOx (as NO2) per day (Basis: Cumulative Increase)
  - (b) 934 pounds of CO per day (Basis: Cumulative Increase)
  - (c) 95 pounds of POC (as CH4) per day (Basis: Cumulative Increase)
  - (d) 130 pounds of SO2 per day (Basis: Cumulative Increase)
- 20. The owner/operator shall not allow cumulative combined emissions from the Gas Turbines (S-1, S-2, S-3, and S-4), including emissions generated during gas turbine startups, shutdowns, and malfunctions to exceed the following limits during any consecutive twelve-month period:
  - (a) 45.6 tons of NOx (as NO2) per year (Basis: Offsets)
  - (b) 27.2 tons of CO per year (Basis: Cumulative Increase)
  - (c) 5.6 tons of POC (as CH4) per year (Basis: Cumulative Increase)
  - (d) 18.6 tons of PM10 per year (Basis: Cumulative Increase)
  - (e) 2.9 tons of SO2 per year (Basis: Cumulative Increase)

Emissions of PM<sub>10</sub> from each gas turbine shall be calculated by multiplying turbine fuel usage times an emission factor determined by source testing of the turbine conducted in accordance with Part 26. The emission factor for each turbine shall be based on the average of the emissions rates observed during the 4 most recent source tests on that turbine (or, prior to the completion of 4 source tests on a turbine, on the average of the emission rates observed during all source tests on the turbine).

21. The owner/operator shall not allow the maximum projected annual toxic air contaminant emissions (per Part 26) from the Gas Turbines (S-1, S-2, S-3, S-4) combined to exceed the following limits:

> formaldehyde 3725.26

pounds per year

benzene

107.94 pounds per year

Specified polycyclic aromatic

hydrocarbons (PAHs)

unless the following requirement is satisfied:

The owner/operator shall perform a health risk assessment to determine the total facility risk using the emission rates determined by source testing and the most current Bay Area Air Quality Management District approved procedures and unit risk factors in effect at the time of the analysis. The owner/operator shall submit the risk analysis to the District and the CEC CPM within 60 days of the source test date. The owner/operator may request that the District and the CEC CPM revise the carcinogenic compound emission

1.063 pounds per year

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limits specified above. If the owner/operator demonstrates to the satisfaction of the APCO that these revised emission limits will not result in a significant cancer risk, the District and the CEC CPM may, at their discretion, adjust the carcinogenic compound emission limits listed above. (Basis: Regulation 2, Rule 5)

- 22. The owner/operator shall demonstrate compliance with Parts 12 through 15, 17(a) through 17(e), 18 (NOx and CO limits), 19(a), 19(b), 20(a) and 20(b) by using properly operated and maintained continuous monitors (during all hours of operation including gas turbine start-up, and shutdown periods). The owner/operator shall monitor for all of the following parameters:
  - (a) Firing Hours and Fuel Flow Rates for each of the following sources: S-1, S-2, S-3, and S-4
  - (b) Oxygen (O2) concentration, Nitrogen Oxides (NOx) concentration, and carbon monoxide (CO) concentration at exhaust points P-1, P-2, P-3 and P-4.
  - (c) Ammonia injection rate at A-2, A-4, A-6 and A-8 SCR Systems

The owner/operator shall record all of the above parameters at least every 15 minutes (excluding normal calibration periods) and shall summarize all of the above parameters for each clock hour. For each calendar day, the owner/operator shall calculate and record the total firing hours, the average hourly fuel flow rates, and pollutant emission concentrations.

The owner/operator shall use the parameters measured above and District-approved calculation methods to calculate the following parameters:

- (d) Heat Input Rate for each of the following sources: S-1, S-2, S-3, and S-4
- (e) Corrected NOx concentration, NOx mass emission rate (as NO2), corrected CO concentration, and CO mass emission rate at each of the following exhaust points: P-1, P-2, P-3 and P-4.

For each source and exhaust point, the owner/operator shall record the parameters specified in Parts 22(d) and 22(e) at least once every 15 minutes (excluding normal calibration periods). As specified below, the owner/operator shall calculate and record the following data:

- (f) total heat input rate for every clock hour and the average hourly heat input rate for every rolling 3-hour period.
- (g) on an hourly basis, the cumulative total heat input rate for each calendar day for the following: each Gas Turbine and for S-1, S-2, S-3 and S-4 combined.
- (h) the average NOx mass emission rate (as NO2), CO mass emission rate, and corrected NOx and CO emission concentrations for every clock hour.

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(i) on an hourly basis, the cumulative total NOx mass emissions (as NO2) and the cumulative total CO mass emissions, for each calendar day for the following: each Gas Turbine and for S-1, S-2, S-3 and S-4 combined.

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- (j) For each calendar day, the average hourly heat input rates, corrected NOx emission concentration, NOx mass emission rate (as NO2), corrected CO emission concentration, and CO mass emission rate for each gas turbine.
- (k) on a monthly basis, the cumulative total NOx mass emissions (as NO2) and cumulative total CO mass emissions, for the previous consecutive twelve-month period for sources S-1, S-2, S-3, and S-4 combined. (Basis: 1-520.1, 9-9-501, BACT, Offsets, NSPS, Cumulative Increase)
- 23. To demonstrate compliance with Parts 17(f), 17(g), , 19(c), 19(d), 20(c), 20(d), 20(e), the owner/operator shall calculate and record on a daily basis, the precursor organic compound (POC) mass emissions, fine particulate matter (PM10) mass emissions (including condensable particulate matter), and sulfur dioxide (SO2) mass emissions from each power train. The owner/operator shall use the actual heat input rates measured pursuant to Part 22, actual gas turbine start-up times, actual gas turbine shutdown times, and CEC and District-approved emission factors developed pursuant to source testing under Part 26 to calculate these emissions. The owner/operator shall present the calculated emissions in the following format:
  - (a) For each calendar day, POC, PM10, and SO2 emissions, summarized for each power train (gas turbine) and S-1, S-2, S-3, and S-4 combined
  - (b) on a monthly basis, the cumulative total POC, PM10, and SO2 mass emissions, for each year for S-1, S-2, S-3, and S-4 combined.

(Basis: Offsets, Cumulative Increase)

- 24. To demonstrate compliance with Part 21, the owner/operator shall calculate and record on an annual basis the maximum projected annual emissions of: formaldehyde, benzene, and specified PAH's. The owner/operator shall calculate the maximum projected annual emissions using the maximum annual heat input rate of 8,128,900 MMbtu/year for S-1, S-2, S-3, and S-4 combined and the highest emission factor (pounds of pollutant per MMbtu of heat input) determined by the most recent of any source test of the S-1, S-2, S-3, or S-4 Gas Turbines. If the highest emission factor for a given pollutant occurs during minimum-load turbine operation, a reduced annual heat input rate may be utilized to calculate the maximum projected annual emissions to reflect the reduced heat input rates during gas turbine start-up and minimum-load operation. The reduced annual heat input rate shall be subject to District review and approval. (Basis: Regulation 2, Rule 5)
- 25. Within 90 days of start-up of each of the MEP GE LM-6000 PC Sprint units, the owner/operator shall conduct a District-approved source test on exhaust point P-1, P-2, P-3, or P-4 to determine the corrected ammonia (NH3) emission concentration to determine compliance with Part 17(e). The source test shall determine the correlation between the heat input rates of the gas turbine, A-2, A-4, A-6, or A-8 SCR System ammonia injection rate, and the corresponding NH3 emission concentration at emission point P-1, P-2, P-3, or P-4. The source test shall be conducted over the expected operating range of the turbine (including, but not limited to, minimum and full load modes) to establish the

# VI. Permit Conditions

range of ammonia injection rates necessary to achieve NOx emission reductions while maintaining ammonia slip levels. The owner/operator shall repeat the source testing on an annual basis thereafter. Ongoing compliance with Part 17(e) shall be demonstrated through calculations of corrected ammonia concentrations based upon the source test correlation and continuous records of ammonia injection rate. The owner/operator shall submit the source test results to the District and the CEC CPM within 60 days of conducting the tests. (Basis: Regulation 2, Rule 5)

- 26. Within 90 days of start-up of each of the MEP GE LM-6000 PC Sprint units and on an annual basis thereafter, the owner/operator shall conduct a District-approved source test on exhaust points P-1, P-2, P-3 and P-4 while each Gas Turbine is operating at maximum load to determine compliance with Parts 17(a), 17(b), 17(c), 17(d), 17(f), 17(g), and to determine a total particulate matter including condensable particulate matter emission factor, and while each Gas Turbine is operating at minimum load to determine compliance with Parts 17(c), and 17(d) and to verify the accuracy of the continuous emission monitors required in Part 22. The owner/operator shall test for (as a minimum): water content, stack gas flow rate, oxygen concentration, precursor organic compound concentration and mass emissions, nitrogen oxide concentration and mass emissions (as NO2), carbon monoxide concentration and mass emissions, sulfur dioxide concentration and mass emissions, methane, ethane, and total particulate matter emissions including condensable particulate matter. The owner/operator shall submit the source test results to the District and the CEC CPM within 60 days of conducting the tests. The owner/operator may conduct up to four tests per year for total particulate matter including condensable particulate matter. (Basis: BACT, Offsets)
- 27. The owner/operator shall obtain approval for all source test procedures from the District's Source Test Section and the CEC CPM prior to conducting any tests. The owner/operator shall comply with all applicable testing requirements for continuous emission monitors as specified in Volume V of the District's Manual of Procedures. The owner/operator shall notify the District's Source Test Section and the CEC CPM in writing of the source test protocols and projected test dates at least 7 days prior to the testing date(s). As indicated above, the owner/operator shall measure the contribution of condensable PM (back half) to any measurement of the total particulate matter or PM10 emissions. However, the owner/operator may propose alternative measuring techniques to measure condensable PM such as the use of a dilution tunnel or other appropriate method used to capture semi-volatile organic compounds. The owner/operator shall submit the source test results to the District and the CEC CPM within 60 days of conducting the tests. (Basis: BACT, Regulation 2, Rule 2, Section 419)
- 28. Within 90 days of start-up of each of the MEP GE LM-6000 PC Sprint gas turbines and on a biennial basis (once every two years) thereafter, the owner/operator shall conduct a District-approved source test on one of the following exhaust points P-1, P-2, P-3 or P-4 while the Gas Turbine is operating at maximum allowable operating rates to demonstrate

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compliance with Part 21. The owner/operator shall also test the gas turbine while it is operating at minimum load. If three consecutive biennial source tests demonstrate that the annual emission rates calculated pursuant to Part 24 for any of the compounds listed below are less than the BAAQMD trigger levels, pursuant to Regulation 2, Rule 5, shown, then the owner/operator may discontinue future testing for that pollutant:

Benzene ≤ 3.8 pounds/year and 2.9 pounds/hour

Formaldehyde < 18 pounds/year and 0.12

pounds/hour

Specified PAHs  $\leq$  0.0069 pounds/year

(Basis: Regulation 2, Rule 5)

- 29. The owner/operator shall calculate the sulfuric acid mist (SAM) emission rate using the total heat input for the sources and the highest results of any source testing conducted pursuant to Part 30. If this SAM mass emission limit of Part 31 is exceeded, the owner/operator must utilize air dispersion modeling to determine the impact (in micrograms/cubic meter) of the sulfuric acid mist emissions pursuant to Regulation 2, Rule 2, Section 306. (Basis: Regulation 2, Rule 2, Section 306)
- 30. Within 90 days of start-up of each of the MEP GE LM-6000 PC Sprint gas turbines and on an annual basis thereafter, the owner/operator shall conduct a District-approved source test on two of the four exhaust points P-1, P-2, P-3 and P-4 while each gas turbine is operating at maximum heat input rates to demonstrate compliance with the SAM emission rates specified in Part 31. The owner/operator shall test for (as a minimum) SO2, SO3, and H2SO4. The owner/operator shall submit the source test results to the District and the CEC CPM within 60 days of conducting the tests. (Basis: Regulation 2, Rule 2, Section 306, and Regulation 2, Rule 2, Section 419)
- 31. The owner/operator shall not allow sulfuric acid emissions (SAM) from stacks P-1, P-2, P-3, P-4 combined to exceed 7 tons in any consecutive 12 month period. (Basis: Regulation 2, Rule 2, Section 306, and Regulation 2, Rule 2, Section 419)
- 32. The owner/operator shall ensure that the stack heights of emission points P-1, P-2, P-3 and P-4 are each at least 79.5 feet above grade level at the stack base. (Basis: Regulation 2, Rule 5)
- 33. The owner/operator of the MEP shall submit all reports to the District (including, but not limited to monthly CEM reports, monitor breakdown reports, emission excess reports, equipment breakdown reports, etc.) as required by District Rules or Regulations and in accordance with all procedures and time limits specified in the Rule, Regulation, Manual of Procedures, or Enforcement Division Policies & Procedures Manual. (Basis: Regulation 2, Rule 1, Section 403)

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- 34. The owner/operator of the MEP shall maintain all records and reports on site for a minimum of 5 years. These records shall include but are not limited to: continuous monitoring records (firing hours, fuel flows, emission rates, monitor excesses, breakdowns, etc.), source test and analytical records, natural gas sulfur content analysis results, emission calculation records, records of plant upsets and related incidents. The owner/operator shall make all records and reports available to District and the CEC CPM staff upon request. (Basis: Regulation 2, Rule 1, Section 403, Regulation 2, Rule 6, Section 501)
- 35. The owner/operator of the MEP shall notify the District and the CEC CPM of any violations of these permit conditions. Notification shall be submitted in a timely manner, in accordance with all applicable District Rules, Regulations, and the Manual of Procedures. Notwithstanding the notification and reporting requirements given in any District Rule, Regulation, or the Manual of Procedures, the owner/operator shall submit written notification (facsimile is acceptable) to the Enforcement Division within 96 hours of the violation of any permit condition. (Basis: Regulation 2, Rule 1, Section 403)
- 36. The owner/operator of MEP shall provide adequate stack sampling ports and platforms to enable the performance of source testing. The location and configuration of the stack sampling ports shall comply with the District Manual of Procedures, Volume IV, Source Test Policy and Procedures, and shall be subject to BAAQMD review and approval, except that the facility shall provide four sampling ports that are at least 6 inches in diameter in the same plane of each gas turbine stack (P-1, P-2, P-3, P-4). (Basis: Regulation 1, Section 501)
- 37. Within 180 days of the issuance of the Authority to Construct for the MEP, the owner/operator shall contact the BAAQMD Technical Services Division regarding requirements for the continuous emission monitors, sampling ports, platforms, and source tests required by Parts 10, 25, 26, 28 and 30. The owner/operator shall conduct all source testing and monitoring in accordance with the District approved procedures. (Basis: Regulation 1, Section 501)
- 38. The owner/operator shall ensure that the MEP complies with the requirement to hold SO2 allowances in 40 CFR 72.9(c)(1) and the continuous emission monitoring requirements of 40 CFR Part 75. (Basis: Regulation 2, Rule 7)

# Condition #22850 For S-6, Diesel Fire Pump

1. The owner/operator shall not exceed 50 hours per year per engine for reliability-related testing. [Basis: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection (e)(2)(A)(3) or (e)(2)(B)(3)]

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2. The owner/operator shall operate each emergency standby engine only for the following purposes: to mitigate emergency conditions, for emission testing to demonstrate compliance with a District, State or Federal emission limit, or for reliability-related activities (maintenance and other testing, but excluding emission testing). Operating while mitigating emergency conditions or while emission testing to show compliance with District, State or Federal emission limits is not limited.

[Basis: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection (e)(2)(A)(3) or (e)(2)(B)(3)]

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- 3. The owner/operator shall operate each emergency standby engine only when a non-resettable totalizing meter (with a minimum display capability of 9,999 hours) that measures the hours of operation for the engine is installed, operated and properly maintained. [Basis: "Stationary Diesel Engine ATCM" section 93115,title 17, CA Code of Regulations, subsection (e)(4)(G)(1)]
- 4. Records: The owner/operator shall maintain the following monthly records in a District-approved log for at least 36 months from the date of entry (60 months if the facility has been issued a Title V Major Facility Review Permit or a Synthetic Minor Operating Permit). Log entries shall be retained on-site, either at a central location or at the engine's location, and made immediately available to the District staff upon request.
  - a. Hours of operation for reliability-related activities (maintenance and testing).
  - b. Hours of operation for emission testing to show compliance with emission limits.
  - c. Hours of operation (emergency).
  - d. For each emergency, the nature of the emergency condition.
  - e. Fuel usage for each engine(s).

[Basis: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection (e)(4)(I), (or, Regulation 2-6-501)]

# 5. At School and Near-School Operation:

If the emergency standby engine is located on school grounds or within 500 feet of any school grounds, the following requirements shall apply:

The owner/operator shall not operate each stationary emergency standby diesel-fueled engine for non-emergency use, including maintenance and testing, during the following periods:

- a. Whenever there is a school-sponsored activity (if the engine is located on school grounds)
- b. Between 7:30 a.m. and 3:30 p.m. on days when school is in session.
- "School" or "School Grounds" means any public or private school used for the purposes of the education of more than 12 children in kindergarten or any of grades 1 to 12, inclusive, but does not include any private school in which education is primarily conducted in a private home(s). "School" or "School Grounds" includes any building or

# VI. Permit Conditions

structure, athletic field, or other areas of school property but does not include unimproved school property.

[Basis: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection (e)(2)(A)(1)] or (e)(2)(B)(2)]

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# VII. APPLICABLE LIMITS & COMPLIANCE MONITORING REQUIREMENTS

This section has been included to summarize the applicable emission limits contained in Section IV, Source-Specific Applicable Requirements, of this permit. The following tables show the relationship between each emission limit and the associated compliance monitoring provisions, if any. The monitoring frequency column indicates whether periodic (P) or continuous (C) monitoring is required. For periodic monitoring, the frequency of the monitoring has also been shown using the following codes: annual (A), quarterly (Q), monthly (M), weekly (W), daily (D), hourly (H), or on an event basis (E). No monitoring (N) has been required if the current applicable rule or regulation does not require monitoring, and the operation is unlikely to deviate from the applicable emission limit based upon the nature of the operation.

This section is only a summary of the limits and monitoring requirements. In the case of a conflict with any requirement in Sections I-VI, the preceding sections take precedence over Section VII.

Table VII - A
Applicable Limits and Compliance Monitoring Requirements
S-1, S-2, S-3 AND S-4 COMBUSTION GAS TURBINES

			Future		Monitoring	Monitoring	
Type of	Citation of	FE	Effective		Requirement	Frequency	Monitoring
Limit	Limit	Y/N	Date	Limit	Citation	(P/C/N)	Type
NOx	BAAQMD	N		9 ppmv @ 15% O2, dry	BAAQMD	С	CEM
	9-9-301.2			or	9-9-501 and		
				0.43 lbs/MW-hr	BAAQMD		
					condition		
					#24955, part		
					22b		
NOx	SIP	Y		9 ppmv @ 15% O2, dry	BAAQMD	С	CEM
	9-9-301.3				9-9-501 and		
					BAAQMD		
					condition		
					#24955, part		
					22b		
NOx	BAAQMD	N		2.5 ppmv @ 15% O2, dry,	BAAQMD	С	CEM
	Condition			1-hour average except	condition		
	#24955,			during turbine startup or	#24955,		
	part 17b			shutdown	part 22b		

# VII. Applicable Limits & Compliance Monitoring Requirements

# Table VII - A Applicable Limits and Compliance Monitoring Requirements S-1, S-2, S-3 AND S-4 COMBUSTION GAS TURBINES

			Future		Monitoring	Monitoring	
Type of	Citation of	FE	Effective		Requirement	Frequency	Monitoring
Limit	Limit	Y/N	Date	Limit	Citation	(P/C/N)	Туре
NOx	BAAQMD	N		2.5 ppmv @ 15% O2, dry,	BAAQMD	P/A	Source test
	Condition			1-hour average except	condition		
	#24955,			during turbine startup or	#24955,		
	part 17b			shutdown	part 26		
NOx	NSPS, 40	Y		42 ppmv @ 15% O2, dry	BAAQMD	С	CEM
NOX	CFR	1		Table 1	condition	C	CLIVI
	60.4320(a)			Tuble 1	#24955, part		
	KKKK				22b		
	Table 1				220		
NOx	None	Y		None	40 CFR 75.10	С	CEM
NOx (as	BAAQMD	Y		408 lb/day and 51 lb/hr	BAAQMD	C	CEM
NO <sub>2</sub> )	condition			from each gas turbine	condition		
	#24955,			during commissioning,	#24955, part		
	part 9a			including startup and	6 and 22b		
				shutdown of the gas turbine			
NOx (as	BAAQMD	Y		2.5 ppmv @ 15% O2, dry,	BAAQMD	С	CEM
NO <sub>2</sub> )	condition			1-hour average except	condition		
	#24955,			during turbine startup or	#24955, part		
	part 17 b			shutdown	9 and 22b		
NOx (as	BAAQMD	Y		2.5 ppmv @ 15% O2, dry,	BAAQMD	P/A	Source test
,	condition	1			condition	Γ/Α	Source test
NO <sub>2</sub> )	#24955,			1-hour average except during turbine startup or			
	part 17 b			shutdown	#24955, part 26		
				shutdown	20		
NOx (as	BAAQMD	Y		18.5 lb/hr from each turbine	BAAQMD	С	CEM
NO <sub>2)</sub>	condition			during startup and/or	condition		
	#24955,			shutdown	#24955, part		
	part 18				26		
NOx (as	BAAQMD	Y		1100 lb/day from all	BAAQMD	С	CEM
NO <sub>2</sub> )	condition			turbines including startup	condition		
	#24955,			and shutdown	#24955, part		
	part 19a				22b		

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# VII. Applicable Limits & Compliance Monitoring Requirements

# Table VII - A Applicable Limits and Compliance Monitoring Requirements S-1, S-2, S-3 AND S-4 COMBUSTION GAS TURBINES

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
NOx (as NO <sub>2</sub> )	BAAQMD condition #24955, part 20a	Y		45.6 tons/yr from all turbine including startup and shutdown	BAAQMD condition #24955, part 22b	С	CEM
СО	BAAQMD condition #24955, part 9a	Y		360 lb/day and 45 lb/hr from each gas turbines during commissioning, including startup and shutdown of the gas turbine	BAAQMD condition #24955, part 22b	С	CEM
СО	BAAQMD condition #24955, part 9	Y		8.7 tons/yr from each gas turbines during commissioning, including startup and shutdown of the gas turbine	BAAQMD condition #24955, part 22b	С	CEM
СО	BAAQMD condition #24955, part 17d	Y		2.0 ppm @ 15% O2 averaged over any rolling 3- hour period except during turbine startup and shutdown	BAAQMD condition #24955, part 22b	С	CEM
СО	BAAQMD condition #24955, part 17d	Y		2.0 ppm @ 15% O2 averaged over any rolling 3- hour period except during turbine startup and shutdown	BAAQMD condition #24955, part 26	P/A	Source Test
СО	BAAQMD condition #24955, part 18	Y		17.3 lb/hr from each turbine during startup and/or shutdown	BAAQMD condition #24955, part 26	С	CEM
СО	BAAQMD condition #24955, part 19b	Y		934 lb/day from all turbine including startup and shutdown	BAAQMD condition #24955, part 22b	С	CEM

# VII. Applicable Limits & Compliance Monitoring Requirements

# Table VII - A Applicable Limits and Compliance Monitoring Requirements S-1, S-2, S-3 AND S-4 COMBUSTION GAS TURBINES

			Future		Monitoring	Monitoring	
Type of	Citation of	FE	Effective		Requirement	Frequency	Monitoring
Limit	Limit	Y/N	Date	Limit	Citation	(P/C/N)	Type
СО	BAAQMD	Y		27.2 tons/yr from all turbine	BAAQMD	С	CEM
	condition			including startup and	condition		
	#24955,			shutdown	#24955, part		
	part 20b				22b		
$CO_2$		Y		None	40 CFR 75.10	С	CEM (CO2)
							or CEM (O2)
							or fuel flow
							monitor
$SO_2$	BAAQMD	Y		GLC <sup>1</sup> of 0.5 ppm for 3 min		N	
	9-1-301			or 0.25 ppm for 60 min or			
				0.05 ppm for 24 hours			
$SO_2$	BAAQMD	Y		300 ppm (dry)	BAAQMD	P/A	Source Test
	9-1-302				condition		
					#24955,		
					part 26		
$SO_2$	NSPS	Y		0.90 lb of SO <sub>2</sub> /MWh or	40 CFR	N	None
	40 CFR			0.06 lb of SO <sub>2</sub> /MMBtu	60.4365		
	60.4330						
	KKKK						
$SO_2$	None	Y		None	40 CFR	P/M	Fuel
					75.11, 40		measure-
					CFR 75,		ments,
					Appendix D,		calculation
					part 2.3		
$SO_2$	BAAQMD	Y		10.8 lb/day for all turbines	BAAQMD	P/M	Fuel sulfur
	condition			combined during	Condition		analysis
	#24955,			commissioning, including	24955, Part		records &
	part 9a			startup and shutdown of	23a		calculation
				turbines			
$SO_2$	BAAQMD	Y		1.347 lb/hr of SO <sub>2</sub> from all	BAAQMD	P/M	SO <sub>2</sub> analysis
	condition			turbines combined	Condition		records &
	#24955,				24955, Part		calculation
	part 17g				23a		

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# VII. Applicable Limits & Compliance Monitoring Requirements

# Table VII - A Applicable Limits and Compliance Monitoring Requirements S-1, S-2, S-3 AND S-4 COMBUSTION GAS TURBINES

			Future		Monitoring	Monitoring	
Type of	Citation of	FE	Effective		Requirement	Frequency	Monitoring
Limit	Limit	Y/N	Date	Limit	Citation	(P/C/N)	Type
$SO_2$	BAAQMD	Y		1.347 lb/hr of SO <sub>2</sub> from all	BAAQMD	P/A	Source Test
	condition			turbines combined	Condition		
	#24955,				24955, Part		
	part 17g				26		
$SO_2$	BAAQMD	Y		2.9 tons/yr of SO <sub>2</sub> from all	BAAQMD	P/A	Source Test
	condition			turbines combined	Condition		
	#24955,			including startup and	24955, Part		
	part 20e			shutdown of turbines except	26		
				during commissioning			
Opacity	BAAQMD	N		> Ringelmann No. 1 for no		N	
	6-1-301			more than 3 minutes in any			
				hour			
Opacity	SIP 6-301	Y		> Ringelmann No. 1 for no		N	
				more than 3 minutes in any			
				hour			
FP	BAAQMD	Y		0.15 grain/dscf		N	
	6-1-310						
FP	SIP	Y		0.15 grain/dscf		N	
	6-310						
$PM_{10}$	BAAQMD	Y		18.6 tons/yr from all turbine	BAAQMD	P/A	Source test
	condition			including startup and	condition		
	#24955,			shutdown	#24955,		
	part 20d				part 26		
$PM_{10}$	BAAQMD	Y		20 lb/day for each turbine	BAAQMD	P/A	PM <sub>10</sub> analysis
	condition			including startup and	condition		records &
	#24955,			shutdown daily	#24955,		calculation
	part 9a			commissioning	part 23a		
POC	BAAQMD	Y		0.612 lbs/hr,	BAAQMD	P/A	Source Test
	condition			does not apply during	condition		
	#24955,			turbine startup or shutdown	#24955,		
	part 17f				part 23a		

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# VII. Applicable Limits & Compliance Monitoring Requirements

# Table VII - A Applicable Limits and Compliance Monitoring Requirements S-1, S-2, S-3 AND S-4 COMBUSTION GAS TURBINES

			Future		Monitoring	Monitoring	
Type of	Citation of	FE	Effective		Requirement	Frequency	Monitoring
Limit	Limit	Y/N	Date	Limit	Citation	(P/C/N)	Type
POC	BAAQMD	Y		5.6 ton/calendar year for all	BAAQMD	P/A	Source test
	condition			turbines combined,	condition		and
	#24955,			including startup and	#24955,		calculation
	part 20c			shutdown	part 25		
NH <sub>3</sub>	BAAQMD	N		5 ppmv @ 15% O2, dry,	BAAQMD	С	Ammonia
	condition			Averaged over any rolling	condition		injection +
	#24955,			3-hour rolling period	#24955,		NOx
	Part 17e			average	parts 22 and		monitoring
				except during turbine	25		
				startup or shutdown			
$NH_3$	BAAQMD	N		5 ppmv @ 15% O2, dry,	BAAQMD	P/A	Source test
	condition			except during turbine	condition		
	#24955,			startup or shutdown	#24955,		
	Part 17e				part 25		
Heat input	BAAQMD	Y		500 MM BTU/ hr (HHV)	BAAQMD	С	Records &
limit	condition				condition		Calculation
	#24955,				#24955,		
	part 12				part 22f		
Heat input	BAAQMD	Y		12,000 MM BTU/day	BAAQMD	С	Records &
limit	condition			(HHV)	condition		Calculation
	#24955,				#24955,		
	part 13				part 22g		
Stack gas	N/A			None	BAAQMD	P/A	Source test
flow					condition		every 8,000
					#24955,		hrs. or every
					part 26		3 yrs.,
							whichever
							comes first
NH3	N/A			None	BAAQMD	P/A	Source test
injection					condition		
rate					#24955,		
					part 25		

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# VII. Applicable Limits & Compliance Monitoring Requirements

# Table VII - A Applicable Limits and Compliance Monitoring Requirements S-1, S-2, S-3 AND S-4 COMBUSTION GAS TURBINES

Type of	Citation of	FE	Future Effective		Monitoring Requirement	Monitoring Frequency	Monitoring
Limit	Limit	Y/N	Date	Limit	Citation	(P/C/N)	Туре
Formalde	BAAQMD	N		3725.26 pounds/year for all	BAAQMD	P	Source Test
hyde	condition			turbines combined	condition	Startup and	
	#24955 part				24955 part 21	biennial	
	21					thereafter	
Specified	BAAQMD	N		1.063 pounds/year for all	BAAQMD	P	Source Test
PHA's	condition			turbines combined	condition	Startup and	
	#24955 part				#24955 part	biennial	
	21				21	thereafter	
Sulfuric	BAAQMD	Y		7 tons/yr for al turbines	BAAQMD	P/A	Source Test
Acid Mist	condition				condition		
	#24955 part				#24955 part		
	31				30		
Start-up	BAAQMD			30 minutes per start-up	BAAQMD	P/E	Records
Period	condition				condition		
	#24955,				#20057,		
	part 18				part 22		
Shut-	BAAQMD			15 minutes per shutdown	BAAQMD	P/E	Records
down	condition				condition		
Period	#24955,				#24955,		
	part 15				part 22		

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# VII. Applicable Limits & Compliance Monitoring Requirements

# Table VII - B Applicable Limits and Compliance Monitoring Requirements S-6 DIESEL FIREWATER PUMP

T. 4	Gtt. a	-	Future		Monitoring	Monitoring	
Type of Limit	Citation of Limit	FE Y/N	Effective Date	Limit	Requirement Citation	Frequency (P/C/N)	Monitoring Type
SO2			Date	GLC <sup>1</sup> of 0.5 ppm for 3 min	Citation		Туре
SO2	9-1-301	N		or 0.25 ppm for 60 min or		N	
	9-1-301						
	DAAOMD	V		0.05 ppm for 24 hours Sulfur content of fuel		N	
	9-1-304	Y				N	
0		V		<0.5% by weight		N	
Opacity	SIP Regulation	Y		< Ringelmann No 2 for more than 3 min/hr		N	
	6-302			more than 3 min/nr			
	0-302						
Opacity	BAAQMD	N		< Ringelmann No. 2 for		N	
	Regulation			more than 3 min/hr			
	6-1-302						
FP	SIP 6-310	Y		0.15 grain/dscf		N	
FP	BAAQMD	N		0.15 grain/dscf		N	
	6-1-310						
Hours of	BAAQMD	Y		Emergency use for an	BAAQMD	С	Hour meter,
operation	9-8-330.1,			unlimited number of hours	9-8-530	P/E	recordkeepin
	BAAQMD				BAAQMD		g
	Condition				Condition		
	#22850,				#22850, Part 3		
	Part 1						
Hours of	BAAQMD	Y		Reliability-related activities	BAAQMD	C	Hour meter,
operation	9-8-330.2,			not to exceed 50 hours in	9-8-530	P/E	recordkeepin
	BAAQMD			any consecutive 12-month	BAAQMD		g
	Condition			period	Condition		
	#22850,				#22850, Part 3		
	Part 1						

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# VIII. TEST METHODS

The test methods associated with the emission limit of a District regulation are generally referenced in Section 600 et seq. of the regulation. The following table indicates only the test methods associated with the emission limits referenced in Section VII, Applicable Limits & Compliance Monitoring Requirements, of this permit.

# Table VIII Test Methods

Applicable		
Requirement	Description of Requirement	Acceptable Test Methods
BAAQMD	Ringelmann No. 1 Limitation	Manual of Procedures, Volume I, Evaluation of Visible Emissions
6-1-301		
SIP 6-301	Ringelmann No. 1 Limitation	Manual of Procedures, Volume I, Evaluation of Visible Emissions
BAAQMD	Particulate Weight Limitation	Manual of Procedures, Volume IV, ST-15, Particulates Sampling
6-1-310		
SIP 6-310	Particulate Weight Limitation	Manual of Procedures, Volume IV, ST-15, Particulates Sampling
BAAQMD	General Operations	Manual of Procedures, Volume IV, ST-15, Particulates Sampling
6-1-311		
SIP 6-311	General Operations	Manual of Procedures, Volume IV, ST-15, Particulates Sampling
BAAQMD	General Emission Limitation	Manual of Procedures, Volume IV, ST-19A, Sulfur Dioxide,
9-1-302		Continuous Sampling.
BAAQMD	Fuel Burning (Liquid and Solid	Manual of Procedures, Volume III, Method 10, Determination of
9-1-304	Fuels)	Sulfur in Fuel Oils.
NSPS		
Subpart	Standards of Performance for S	tationary Gas Turbines (2/24/06)
KKKK		
60.4400 (a)(1)	Performance Standard, NOx	EPA Method 20, Determination of Nitrogen Oxides, Sulfur
		Dioxide, and Diluent Emissions from Stationary Gas Turbines
60.4415 (a)(1)	SO2 Volumetric Emission Limit	EPA Method 20, Determination of Nitrogen Oxides, Sulfur
		Dioxide, and Diluent Emissions from Stationary Gas Turbines
60.4415	Fuel Sulfur Limit (gaseous fuel)	ASTM D1072-80, Standard Method for Total Sulfur in Fuel
(a)(1)(ii)		Gases.
		ASTM D3031-81, Standard Test Method for Total Sulfur in
		Natural Gas by Hydrogenation
BAAQMI	O Condition # 24955 for S-1, S-2,	S-3, and S-4 Combustion Gas Turbines
Part 17b	NOx Limit	ARB Method 100, Procedures for Continuous Gaseous Emission Stack Sampling
Part 17e	NH3 Limit	Manual of Procedures, Volume IV, ST-1B, Ammonia, Integrated Sampling
Part 17d	CO Limit	ARB Method 100, Procedures for Continuous Gaseous Emission Stack Sampling
Part 17f	POC Limit	ARB Method 100, Procedures for Continuous Gaseous Emission Stack Sampling

# IX. Title IV Acid Rain Permit

# Table VIII Test Methods

Applicable		
Requirement	Description of Requirement	Acceptable Test Methods
Part 20d	PM10 Limit	ARB Method 5, Determination of Particulate Matter Emissions from Stationary Sources
Part 17g	SOx Limit	Manual of Procedures, Volume IV, ST-19A, Sulfur Dioxide, Continuous Sampling or ST-19B, Total Sulfur Oxides, Integrated Sample

# IX. TITLE IV ACID RAIN PERMIT

Effective Date November 12, 2014 through November 11, 2019.

**ISSUED TO:** 

Mariposa Energy, LLC Bruns & Kelso Byron, CA 94514

**PLANT SITE LOCATION:** 

Bruns & Kelso Byron, CA 94514

**ISSUED BY:** 

Signed by Jim Karas, P.E.	June 19, 2015
Jim Karas, P.E. Director of Engineering	Date

Type of Facility: Simple-Cycle Gas Turbine Peaking Facility

Primary SIC: 4911
Product: Electricity

DESIGNATED REPRESENTATIVE
Name: Bohdan Buchynsky

Title: Executive Vice President

Address: 633 West Fifth Street, Suite 1000

Los Angeles, CA 90071

Phone: (213) 473-0092

FACILITY CONTACT PERSON: Name: Wayne Forsyth

# IX. Title IV Acid Rain Permit

Title: Senior Compliance Manager Address: 633 West Fifth Street, Suite 1000

Los Angeles, CA 90071

Phone: (213) 473-0093

# **ALTERNATE DESIGNATED REPRESENTATIVE:**

Name: Wayne Forsyth

Title: Senior Compliance Manager Address: 633 West Fifth Street, Suite 1000

Los Angeles, CA 90071

Phone: (213) 473-0093

# IX. Title IV Acid Rain Permit

### **ACID RAIN PERMIT CONTENTS**

- 1) Statement of Basis
- 2) SO<sub>2</sub> allowance allocated under this permit and NOx requirements for each affected unit.
- 3) Comments, notes and justifications regarding permit decisions and changes made to the permit application forms during the review process, and any additional requirements of conditions.
- 4) The permit application submitted for this source. The owners and operators of the source must comply with the standard requirements and special provisions set forth in the application.

#### 1) STATEMENT OF BASIS

Statutory and Regulatory Authorities: In accordance with District Regulation 2, Rule 7 and Titles IV and V of the Clean Air Act, the Bay Area Air Quality Management District issues this permit pursuant to District Regulation 2, Rule 7.

# 2) SO2 ALLOWANCE ALLOCATIONS

	Year	2014	2015	2016	2017	2018
	SO <sub>2</sub> allowances	None	None	None	None	None
	under Table 2 of 40					
	CFR Part 73					
S-1, S-2, S-3,	NOx Limit	This unit is not subject to the NOx requirements from				
and S-4		40 CFR Part 76 as this unit is not capable of firing on				
Combustion		coal.				
Turbines						

#### 3) COMMENTS, NOTES AND JUSTIFICATIONS

Pursuant to 40 CFR Part 72.6 (a)(3)(i), S-1, S-2, S-3, and S-4 are considered new utility units and are subject to the acid rain permit requirements of 72.9(a).

S-1, S-2, S-3, and S-4 Gas Turbines, are not listed in Table-2 of 40 CFR Part 73.

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# IX. Title IV Acid Rain Permit

Therefore, the operator did not receive initial SO2 allowances under the Acid Rain Program.

S-1, S-2, S-3, and S-4, Gas Turbines, do not qualify for new unit exemptions pursuant to 40 CFR 72.7

(b) (1) since each serve a generator with a nameplate capacity greater than 25 MW.

# 4) PERMIT APPLICATION

Attached as XIII. Title IV Acid Rain Application (Page 73)

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# X. PERMIT SHIELD

# A. Non-applicable Requirements

Pursuant to District Regulations 2-6-233 and 2-6-409.12, the federally enforceable regulations and/or standards cited in the following table[s] do not apply to the source or group of sources identified at the top of the table[s]. Enforcement actions and litigation may not be initiated against the source or group of sources covered by this shield based on the regulatory and/or statutory provisions cited, as long as the reasons listed below remain valid for the source or group of sources covered by this shield.

There are no permit shields of this type for any sources at this facility.

### **B.** Subsumed Requirements:

Pursuant to District Regulations 2-6-233.2 and 2-6-409.12, as of the date this permit is issued, the federally enforceable monitoring, recordkeeping, and reporting requirements cited in the following table for the source or group of sources identified at the top of the table[s] are subsumed by the monitoring, recordkeeping, and reporting for more stringent requirements or by a "hybrid" monitoring scheme. The District has determined that compliance with the requirements listed below and elsewhere in this permit will assure compliance with the substantive requirements of the subsumed monitoring requirements. Enforcement actions and litigation may not be initiated against the source or group of sources covered by this shield based on the subsumed monitoring requirements cited.

There are no permit shields of this type for any sources at this facility.

# XI. REVISION HISTORY

This section contains the details of issuance and revision for each permit.

The initial Title V permit for this facility was submitted with the NSR application in February, 2013.

Initial Title V Permit

(Application No. 23399):

November 12, 2014

Administrative Amendment:

(Application No. 26908)

June 19, 2015

New responsible official and new facility contact for Title V permit.

New designated representative and add an alternate designated representative for the Title IV Acid Rain Permit.

New mailing address.

Revised submittal dates for the semi-annual monitoring report and annual compliance certification. (Section I Part F and G.)

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# XII. GLOSSARY

#### ACT

Federal Clean Air Act

#### APCO

Air Pollution Control Officer

#### API

American Petroleum Institute

#### ARB

Air Resources Board

#### **BAAQMD**

Bay Area Air Quality Management District

#### BACT

Best Available Control Technology

#### BARCT

Best Available Retrofit Control Technology

#### Basis

The underlying authority that allows the District to impose requirements.

#### **C5**

An Organic chemical compound with five carbon atoms

#### **C6**

An Organic chemical compound with six carbon atoms

#### CAA

The federal Clean Air Act

#### **CAAQS**

California Ambient Air Quality Standards

#### **CAPCOA**

California Air Pollution Control Officers Association

#### CEC

California Energy Commission

### **CEQA**

California Environmental Quality Act

#### **CEM**

A "continuous emission monitor" is a monitoring device that provides a continuous direct measurement of some pollutant (e.g. NOx concentration) in an exhaust stream.

#### **CFR**

The Code of Federal Regulations. 40 CFR contains the implementing regulations for federal environmental statutes such as the Clean Air Act. Parts 50-99 of 40 CFR contain the requirements for air pollution programs.

#### CO

Carbon Monoxide

# XII. Glossary

#### CO<sub>2</sub>

Carbon Dioxide

#### **Cumulative Increase**

The sum of permitted emissions from each new or modified source since a specified date pursuant to BAAQMD Rule 2-1-403, Permit Conditions (as amended by the District Board on 7/17/91) and SIP Rule 2-1-403, Permit Conditions (as approved by EPA on 6/23/95). Used to determine whether threshold-based requirements are triggered.

#### District

The Bay Area Air Quality Management District

#### dscf

Dry Standard Cubic Feet

#### dscm

Dry Standard Cubic Meter

#### E 6, E 9, E 12

Very large or very small number values are commonly expressed in a form called scientific notation, which consists of a decimal part multiplied by 10 raised to some power. For example,  $4.53 ext{ E } 6$  equals  $(4.53) ext{ x } (10^6) = (4.53) ext{ x } (10 ext{ x } 10 ext{ multiplied})$ . Scientific notation is used to express large or small numbers without writing out long strings of zeros.

#### **EGT**

**Exhaust Gas Temperature** 

#### **EPA**

The federal Environmental Protection Agency.

#### Excluded

Not subject to any District Regulations.

#### Federally Enforceable, FE

All limitations and conditions which are enforceable by the Administrator of the EPA including those requirements developed pursuant to 40 CFR Part 51, subpart I (NSR), Part 52.21 (PSD), Part 60 (NSPS), Part 61 (NESHAPs), Part 63 (HAP), and Part 72 (Permits Regulation, Acid Rain), and also including limitations and conditions contained in operating permits issued under an EPA-approved program that has been incorporated into the SIP.

#### FP

Filterable Particulate as measured by BAAQMD Method ST-15, Particulate.

#### FR

Federal Register

#### **GDF**

Gasoline Dispensing Facility

#### **GLM**

Ground Level Monitor

### grains

1/7000 of a pound

#### HAP

Hazardous Air Pollutant. Any pollutant listed pursuant to Section 112(b) of the Act. Also refers to the program mandated by Title I, Section 112, of the Act and implemented by 40 CFR Part 63.

#### H2S

Hydrogen Sulfide

# XII. Glossary

#### HH

Higher Heating Value. The quantity of heat evolved as determined by a calorimeter where the combustion products are cooled to 60F and all water vapor is condensed to liquid.

#### LHV

Lower Heating Value. Similar to the higher heating value (see HHV) except that the water produced by the combustion is not condensed but retained as vapor at 60F.

#### **Major Facility**

A facility with potential emissions of: (1) at least 100 tons per year of regulated air pollutants, (2) at least 10 tons per year of any single hazardous air pollutant, and/or (3) at least 25 tons per year of any combination of hazardous air pollutants, or such lesser quantity of hazardous air pollutants as determined by the EPA administrator.

#### **MFR**

Major Facility Review. The District's term for the federal operating permit program mandated by Title V of the Act and implemented by District Regulation 2, Rule 6.

#### MOP

The District's Manual of Procedures

#### MSDS

Material Safety Data Sheet

#### MW

Megawatts

#### NA

Not Applicable

#### **NAAQS**

National Ambient Air Quality Standards

#### **NESHAPs**

National Emission Standards for Hazardous Air Pollutants. See in 40 CFR Parts 61 and 63.

#### **NMHC**

Non-methane Hydrocarbons

#### NMOO

Non-methane Organic Compounds (Same as NMHC)

#### NOx

Oxides of nitrogen.

# NSPS

Standards of Performance for New Stationary Sources. Federal standards for emissions from new stationary sources. Mandated by Title I, Section 111 of the Act, and implemented by 40 CFR Part 60 and District Regulation 10.

#### **NSR**

New Source Review. A federal program for pre-construction review and permitting of new and modified sources of air pollutants for which the District is classified "non-attainment". Mandated by Title I of the Clean Air Act and implemented by 40 CFR Parts 51 and 52 as well as District Regulation 2, Rule 2. (Note: There are additional NSR requirements mandated by the California Clean Air Act.)

#### $\Omega^2$

The chemical name for naturally-occurring oxygen gas.

# XII. Glossary

#### **Offset Requirement**

A New Source Review requirement to provide federally enforceable emission offsets at a specified ratio for the emissions from a new or modified source and any pre-existing cumulative increase minus any onsite contemporaneous emission reduction credits. Applies to emissions of POC, NOx, PM10, and SO2.

#### Phase II Acid Rain Facility

A facility that generates electricity for sale through fossil-fuel combustion and is not exempted by 40 CFR 72 from Titles IV and V of the Clean Air Act.

#### POC

Precursor Organic Compounds

#### PM

**Total Particulate Matter** 

#### **PM10**

Particulate matter with aerodynamic equivalent diameter of less than or equal to 10 microns

#### **PSD**

Prevention of Significant Deterioration. A federal program for permitting new and modified sources of air pollutants for which the District is classified "attainment" of the National Air Ambient Quality Standards. Mandated by Title I of the Act and implemented by both 40 CFR Part 52 and District Regulation 2, Rule 2.

#### SCR

A "selective catalytic reduction" unit is an abatement device that reduces NOx concentrations in the exhaust stream of a combustion device. SCRs utilize a catalyst, which operates at a specific temperature range, and injected ammonia to promote the conversion of NOx compounds to nitrogen gas.

#### SIP

State Implementation Plan. State and District programs and regulations approved by EPA and developed in order to attain the National Air Ambient Quality Standards. Mandated by Title I of the Act.

#### SO<sub>2</sub>

Sulfur dioxide

#### **SO2 Bubble**

An SO2 bubble is an overall cap on the SO2 emissions from a defined group of sources, or from an entire facility. SO2 bubbles are sometimes used at refineries because combustion sources are typically fired entirely or in part by "refinery fuel gas" (RFG), a waste gas product from refining operations. Thus, total SO2 emissions may be conveniently quantified by monitoring the total amount of RFG that is consumed, and the concentration of H2S and other sulfur compounds in the RFG.

## SO3

Sulfur trioxide

### THC

Total Hydrocarbons (NMHC + Methane)

#### therm

100,000 British Thermal Unit

#### Title V

Title V of the federal Clean Air Act. Requires a federally enforceable operating permit program for major and certain other facilities.

# XII. Glossary

### TOC

Total Organic Compounds (NMOC + Methane, Same as THC)

#### TSF

Total Suspended Particulate

#### TVP

True Vapor Pressure

#### VOC

Volatile Organic Compounds

### **Units of Measure:**

or ivicasur	С.	
bbl	=	barrel of liquid (42 gallons)
bhp	=	brake-horsepower
btu	=	British Thermal Unit
°C	=	degrees Celsius
°F	=	degrees Fahrenheit
$f^3$	=	cubic feet
g	=	grams
gal	=	gallon
gpm	=	gallons per minute
hp	=	horsepower
hr	=	hour
lb	=	pound
in	=	inches
max	=	maximum
$m^2$	=	square meter
min	=	minute
M	=	thousand
Mg	=	mega-gram, one thousand grams
μg	=	micro-gram, one millionth of a gram
MM	=	million
mm	=	millimeter
MMbtu	=	million btu
mm Hg	=	millimeters of Mercury (pressure)
MW	=	megawatts
ppmv	=	parts per million, by volume
ppmw	=	parts per million, by weight
psia	=	pounds per square inch, absolute
psig	=	pounds per square inch, gauge
scfm	=	standard cubic feet per minute
yr	=	year

# **Symbols:**

<	=	less than
>	=	greater than
<u>≤</u>	=	less than or equal to
<u>≥</u>	=	greater than or equal to

# XIII. TITLE IV (ACID RAIN) APPLICATION



United States Environmental Protection Agency Acid Rain Program

OMB No. 2060-0258 Approval expires 11/30/2012

# **Acid Rain Permit Application**

For more information, see instructions and 40 CFR 72.30 and 72.31.

This submission is: X new ~ revised ~ for Acid Rain permit renewal

STEP 1

Identify the facility name, State, and plant (ORIS) code.

Facility (Source) Name Mariposa Energy Project	State California	Plant Code 57483
manpood Energy Frejock	otate camerna	1 Idill 000C 57 400

#### STEP 2

Enter the unit ID# for every affected unit at the affected source in column "a."

a	b	
Unit ID#	Unit Will Hold Allowances in Accordance with 40 CFR 72.9(c)(1)	
GT-1	Yes	
GT-2	Yes	
GT-3	Yes	
GT-4	Yes	
В		

Permit for Facility #: B4414

# XIII. Title IV (Acid Rain) Application

Mariposa Energy Project	Acid Rain - Page 2
Facility (Source) Name (from STEP 1)	

#### Permit Requirements

#### STEP 3

(1) The designated representative of each affected source and each affected unit at the source shall:

Read the standard requirements.

- (i) Submit a complete Acid Rain permit application (including a compliance plan) under 40 CFR part 72 in accordance with the deadlines specified in 40 CFR 72.30; and
- (ii) Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review an Acid Rain permit application and issue or deny an Acid Rain permit;
- (2) The owners and operators of each affected source and each affected unit at the source shall:
  - (i) Operate the unit in compliance with a complete Acid Rain permit application or a superseding Acid Rain permit issued by the permitting authority; and
  - (ii) Have an Acid Rain Permit.

#### Monitoring Requirements

- (1) The owners and operators and, to the extent applicable, designated representative of each affected source and each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the source or unit, as appropriate, with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.
- (3) The requirements of 40 CFR part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.

#### Sulfur Dioxide Requirements

- (1) The owners and operators of each source and each affected unit at the source shall:
  - (i) Hold allowances, as of the allowance transfer deadline, in the source's compliance account (after deductions under 40 CFR 73.34(c)), not less than the total annual emissions of sulfur dioxide for the previous calendar year from the affected units at the source; and
  - (ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
- (2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.
  (3) An affected unit shall be subject to the requirements under paragraph (1)
- of the sulfur dioxide requirements as follows:
- (i) Starting January 1, 2000, an affected unit under 40 CFR 72.6(a)(2); or (ii) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR part 75, an affected unit under 40 CFR 72.6(a)(3).

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Permit for Facility #: B4414

# XIII. Title IV (Acid Rain) Application

Mariposa Energy Project	Acid Rain - Page 3
Facility (Source) Name (from STEP 1)	

#### Sulfur Dioxide Requirements, Cont'd.

#### STEP 3, Cont'd.

- (4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
- (5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
- (6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
- (7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

#### Nitrogen Oxides Requirements

The owners and operators of the source and each affected unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

#### **Excess Emissions Requirements**

- (1) The designated representative of an affected source that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR part 77.
- (2) The owners and operators of an affected source that has excess emissions in any calendar year shall:
  - (i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR part 77; and
  - (ii) Comply with the terms of an approved offset plan, as required by 40 CFR part 77.

#### Recordkeeping and Reporting Requirements

- (1) Unless otherwise provided, the owners and operators of the source and each affected unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Administrator or permitting authority:
  - (i) The certificate of representation for the designated representative for the source and each affected unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative:

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# XIII. Title IV (Acid Rain) Application

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Facility (Source) Name (from STEP 1)	1

#### Recordkeeping and Reporting Requirements, Cont'd.

STEP 3, Cont'd.

- (ii) All emissions monitoring information, in accordance with 40 CFR part 75, provided that to the extent that 40 CFR part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply.
- (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,
- (iv) Copies of all documents used to complete an Acid Rain permit application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.
- (2) The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR part 72 subpart I and 40 CFR part 75.

#### Liability

- (1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.
- (2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.
- (3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.
  (4) Each affected source and each affected unit shall meet the requirements of the Acid Rain Program.
- (5) Any provision of the Acid Rain Program that applies to an affected source (including a provision applicable to the designated representative of an affected source) shall also apply to the owners and operators of such source and of the affected units at the source.
- (6) Any provision of the Acid Rain Program that applies to an affected unit (including a provision applicable to the designated representative of an affected unit) shall also apply to the owners and operators of such unit.
- (7) Each violation of a provision of 40 CFR parts 72, 73, 74, 75, 76, 77, and 78 by an affected source or affected unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

## **Effect on Other Authorities**

No provision of the Acid Rain Program, an Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 shall be construed as:

(1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an affected source or affected unit from compliance with any other provision of the Act, including the provisions of title I of the Act relating

Permit for Facility #: B4414

# XIII. Title IV (Acid Rain) Application

ariposa Energy Project	Acid Rain - Page 5
Facility (Source) Name (from STEP 1)	

#### Effect on Other Authorities, Cont'd.

to applicable National Ambient Air Quality Standards or State Implementation Plans:

STEP 3, Cont'd.

(2) Limiting the number of allowances a source can hold; provided, that the number of allowances held by the source shall not affect the source's obligation to comply with any other provisions of the Act;(3) Requiring a change of any kind in any State law regulating electric utility

(3) Requiring a change of any kind in any State law regulating electric utility rates and charges, affecting any State law regarding such State regulation, or limiting such State regulation, including any prudence review requirements under such State law;

(4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,

(5) Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

#### Certification

Read the certification statement, sign, and date, I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name	WAYNE FORSYTH			
Signature		Date Z4	MAY	2011