

# Bay Area Air Quality Management District

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

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## Final

### Major Facility Review Permit

Issued To:

**Delta Energy Center, LLC**  
**Facility #B2095**

**Facility Address:**  
1200 Arcy Lane  
Pittsburg, CA 94565

**Mailing Address:**  
PO Box 551  
Pittsburg, CA 94565

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**Responsible Official**

Dale Donmoyer,  
General Manager  
(925) 252-2096

**Facility Contact**

Jeff Sorenson, EHS Manager  
(925) 252-2089

**Alternate Responsible Official**

Reginald Littlejohn,  
Operations Manager  
(925) 252-2093

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**Type of Facility:** Power Plant  
**Primary SIC:** 4911  
**Product:** Generation of Electricity

**BAAQMD Contact:**  
Brian Lusher

**ISSUED BY THE BAY AREA AIR QUALITY MANAGEMENT DISTRICT**

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Signed by Jim Karas  
Jim Karas  
Director of Engineering Division

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July 15, 2013  
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 7/19/06);
- 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 7/19/06);
- 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  
(as approved by EPA through 1/26/99);
- BAAQMD Regulation 2, Rule 4 - Permits, Emissions Banking  
(as amended by the District Board on 12/21/04);
- SIP Regulation 2, Rule 4 - Permits, Emissions Banking  
(as approved by EPA through 1/26/99);
- BAAQMD Regulation 2, Rule 5 – New Source Review of Toxic Air Contaminants  
(as adopted by the District Board on 6/15/05);
- 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 Regulation 2, Rule 6, Major Facility Review

1. This Major Facility Review Permit was reissued on July 12, 2011, and expires on July 11, 2016. The permit holder shall submit a complete application for renewal of this Major Facility Review Permit no later than January 11, 2016 and no earlier than July 11, 2015. **If a complete application for renewal has not been submitted in accordance with this deadline, the facility may not operate after July 11, 2016.** If the permit renewal has not been issued by July 11, 2016, 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." This is the "application shield" pursuant to BAAQMD Regulation 2-6-407. (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

## I. Standard Conditions

- modification; or denial of a permit renewal application. (Regulation 2-6-307; MOP Volume II, Part 3, §4.11)
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 permit holder 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. (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. (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. (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. (Regulation 1-441, Regulation 2-6-409.4 & 501; MOP Volume II, Part 3, §4.11)
  8. Any records that must be maintained pursuant to this permit that the permittee considers 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. (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. (MOP Volume II, Part 3, §4.11)
  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. (Regulation 2-6-307).

## **I. Standard Conditions**

### **C. Requirement to Pay Fees**

The permit holder shall pay annual fees in accordance with District Regulation 3, including Schedule P. (Regulation 2-6-402 & 409.13, 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. (Regulation 1-440, 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. (Regulation 1-441, 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. (Regulation 2-6-501, Regulation 3; 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. Reports shall be for the following periods: October 1st through March 31st and April 1st through September 30th, 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 responsible official shall certify that the reports are 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

(Regulation 2-6-502, Regulation 3; 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 April 1st to March 31st. The certification shall be submitted by April 30th 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 permit holder may satisfy this requirement through submittal of District-generated Compliance Certification forms. 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 Regulation 1-208 of the District's Rules and Regulations, by following the procedures contained in Regulations 1-431 and 1-432. The District will thereafter determine whether breakdown relief will be granted in accordance with 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. (Regulation 2-6-409.5; MOP Volume II, Part 3, §4.10)

## **I. Standard Conditions**

### **J. Miscellaneous Conditions**

The maximum capacity for each source as shown in Table II-A is the maximum allowable capacity. Exceedance of the maximum allowable capacity for any source is a violation of Regulation 2, Rule 1, Section 301. (Regulation 2-1-301)

### **K. Accidental Release**

This facility is subject to 40 CFR Part 68, Chemical Accident Prevention Provisions. The permit holder shall submit a risk management plan (RMP) by the date specified in §68.10. The permit holder shall also certify compliance with the requirements of Part 68 as part of the annual compliance certification, as required by Regulation 2, Rule 6. (40 CFR Part 68, Regulation 2, Rule 6)

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

1. Every year starting January 30, 2003, the permit holder shall hold one sulfur dioxide allowance on March 1 (February 29<sup>th</sup> during a 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 O<sub>2</sub> and NO<sub>x</sub> shall be maintained and operated in accordance with 40 CFR Parts 72 and 75. (Regulation 2-7, Acid Rain)
3. A written Quality Assurance program must be established in accordance with 40 CFR Part 75, Appendix B for NO<sub>x</sub> which includes, but is not limited to: procedures for daily calibration testing, quarterly linearity testing, record keeping and reporting implementation, and relative accuracy testing. (Regulation 2-7, Acid Rain)
4. The permit holder shall monitor SO<sub>2</sub> emissions in accordance with 40 CFR Part 72 and 75. (Regulation 2-7, Acid Rain)
5. The permit holder shall submit quarterly Electronic Data Reports (EDRs) to EPA for S-1, S-3, and S-5, Turbines, and S-2, S-4, and S-6, Heat Recovery Steam Generators. 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)

## 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 Regulation 2-1-301.

S-#	Description	Make or Type	Model	Capacity
1	Turbine #1 (natural gas)	Westinghouse Dry Low NO <sub>x</sub> Combustors	501FD3	200 MW 2,005 MM BTU/hr
2	Heat Recovery Steam Generator #1 (natural gas)			200 MM BTU/hr
3	Turbine #2 (natural gas)	Westinghouse Dry Low NO <sub>x</sub> Combustors	501FD2	200 MW 2,005 MM BTU/hr
4	Heat Recovery Steam Generator #2 (natural gas)			200 MM BTU/hr
5	Turbine #3 (natural gas)	Westinghouse Dry Low NO <sub>x</sub> Combustors	501FD2	200 MW 2,005 MM BTU/hr
6	Heat Recovery Steam Generator #3 (natural gas)			200 MM BTU/hr
9	Cooling Tower	Custom-made		14-cell 10,100,000 gal/hr
10	Fire Pump Diesel Engine	Detroit Diesel	8064-7412	368 bhp
11	Emergency Standby Generator (Natural Gas)	Caterpillar, Lean Burn	G3516LE	1462 bhp



## II. Equipment

**Table II B – Abatement Devices**

<b>A-#</b>	<b>Description</b>	<b>Source(s) Controlled</b>	<b>Applicable Requirement</b>	<b>Operating Parameters</b>	<b>Limit or Efficiency</b>
1	Selective Catalytic Reduction System	S-1, S-2	BAAQMD Condition #17154, part 22(b)	None	2.5 ppmv NO <sub>x</sub> @ 15% O <sub>2</sub> , dry, 1-hr average
2	Selective Catalytic Reduction System	S-3, S-4	BAAQMD Condition #17154, part 22(b)	None	2.5 ppmv NO <sub>x</sub> @ 15% O <sub>2</sub> , dry, 1-hr average
3	Selective Catalytic Reduction System	S-5, S-6	BAAQMD Condition #17154, part 22(b)	None	2.5 ppmv NO <sub>x</sub> @ 15% O <sub>2</sub> , dry, 1-hr average

### 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 would 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 such as sandblasting equipment may be operated at the facility as long as the source is not significant under Rule 2-6-239. Otherwise the significant source would need to be included in the Title V permit.

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

**NOTE:**

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

### III. Generally Applicable Requirements

**Table III  
 Generally Applicable Requirements**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>
BAAQMD Regulation 1	General Provisions and Definitions (7/19/06)	N
SIP Regulation 1	General Provisions and Definitions 6/28/99)	Y
BAAQMD Regulation 2, Rule 1	General Requirements (7/19/06)	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 (12/21/04)	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 (6/15/05)	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	N
BAAQMD Regulation 4	Air Pollution Episode Plan (3/20/91)	N
SIP Regulation 4	Air Pollution Episode Plan (8/06/90)	Y
BAAQMD Regulation 5	Open Burning (3/6/02)	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	Odororous 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 (11/21/01)	Y
BAAQMD Regulation 8, Rule 4	Organic Compounds – General Solvent and Surface Coating Operations (10/16/02)	Y
BAAQMD Regulation 8, Rule 15	Organic Compounds – Emulsified and Liquid Asphalts (6/1/94)	Y

### III. Generally Applicable Requirements

**Table III  
 Generally Applicable Requirements**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>
BAAQMD Regulation 8, Rule 40	Organic Compounds – Aeration of Contaminated Soil and Removal of Underground Storage Tanks (6/15/05)	N
SIP Regulation 8, Rule 40	Organic Compounds – Aeration of Contaminated Soil and Removal of Underground Storage Tanks (4/19/01)	Y
BAAQMD Regulation 8, Rule 47	Organic Compounds – Air Stripping and Soil Vapor Extraction Operations (6/15/05)	N
SIP Regulation 8, Rule 47	Organic Compounds – Air Stripping and Soil Vapor Extraction Operations (4/26/95)	Y
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 (7/17/02)	N
SIP Regulation 8, Rule 51	Organic Compounds - Adhesive and Sealant Products (2/26/02)	Y
BAAQMD Regulation 11, Rule 2	Hazardous Pollutants - Asbestos Demolition, Renovation and Manufacturing (10/7/98)	Y
BAAQMD Regulation 12, Rule 4	Miscellaneous Standards of Performance - Sandblasting (7/11/90)	N
SIP Regulation 12, Rule 4	Miscellaneous Standards of Performance - Sandblasting (9/2/81)	Y
California Health and Safety Code Section 44300 et seq.	Air Toxics “Hot Spots” Information and Assessment Act of 1987	N
California Health and Safety Code Section 41750 et seq.	Portable Equipment	N
California Health and Safety Code Title 17, Section 93115 et seq.	Airborne Toxic Control Measure for Stationary Compression Ignition Engines	N
California Health and Safety Code Title 17, Section 93116	Airborne Toxic Control Measure for Diesel Particulate Matter from Portable Engines Rated at 50 Horsepower and Greater	N
40 CFR Part 51.21	Prevention of Significant Deterioration Permit Program	Y
40 CFR Part 61, Subpart M	National Emission Standards for Hazardous Air Pollutants – National Emission Standard for Asbestos (6/19/95)	Y
EPA Regulation 40 CFR 82	Protection of Stratospheric Ozone (03/12/04)	Y

### III. Generally Applicable Requirements

**Table III  
 Generally Applicable Requirements**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>
Subpart F, 40 CFR 82.156	Recycling and Emissions Reductions – Required Practices (04/13/05)	Y
Subpart F, 40 CFR 82.161	Recycling and Emissions Reductions – Technician Certification (04/13/05)	Y
Subpart F, 40 CFR 82.166	Recycling and Emissions Reductions – Reporting and Recordkeeping Provisions (04/13/05)	Y
40 CFR Part 82, Subpart H	Protection of Stratospheric Ozone; Halon Emissions Reduction (03/05/98)	Y
Title 40 Part 82 Subpart H 82.270(b)	Prohibitions, Halon (03/05/98)	Y
BAAQMD Condition 17154, Part 60	Implementation of BAAQMD Regulation 4, Air Pollution Episode Plan	Y

#### 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. The full language of SIP requirements is on the EPA Region 9 website. The address is:

<http://yosemite.epa.gov/r9/r9sips.nsf/Agency?ReadForm&count=500&state=California&cat=Bay+Area+Air+Quality+Management+District-Agency-Wide+Provisions>

**Table IV – A**  
**Source-specific Applicable Requirements**  
**S-1, S-3, S-5, GAS TURBINE #1, #2, #3**  
**S-2, S-4, S-6, HEAT RECOVERY STEAM GENERATOR #1, #2, #3**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
<b>BAAQMD Regulation 1</b>	<b>General Provisions and Definitions (7/9/08)</b>		
1-107	Combination of Emissions	Y	
1-520	Continuous Emission Monitoring	Y	
1-520.1	Monitoring of NO <sub>x</sub> , CO <sub>2</sub> , or O <sub>2</sub>	Y	
1-520.8	Continuous Emission Monitoring (Monitors Pursuant to 2-1-403)	Y	
1-522	Continuous Emission Monitoring and Recordkeeping Procedures	N	
1-522.1	approval of plans and specifications	Y	
1-522.2	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	
1-522.6	CEM accuracy requirements	Y	

## IV. Source-Specific Applicable Requirements

**Table IV – A**  
**Source-specific Applicable Requirements**  
**S-1, S-3, S-5, GAS TURBINE #1, #2, #3**  
**S-2, S-4, S-6, HEAT RECOVERY STEAM GENERATOR #1, #2, #3**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
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 inoperation	Y	
1-523.2	Limits on periods of inoperation	Y	
1-523.3	Reports of Violations	N	
1-523.4	Records	Y	
1-523.5	Maintenance and calibration	N	
1-602	Area and Continuous Emission Monitoring Requirements	Y	
<b>SIP Regulation 1</b>	<b>General Provisions and Definitions (6/28/99)</b>		
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	
<b>BAAQMD Regulation 2, Rule 1</b>	<b>Regulation 2, Rule 1 - Permits, General Requirements (7/19/06)</b>		
2-1-501	Monitors	Y	
<b>BAAQMD Regulation 6</b>	<b>Particulate Matter and Visible Emissions (12/5/07)</b>		
6-1-301	Ringelmann Number 1 Limitation	N	
6-1-304	Tube Cleaning (HRSG Only)	N	
6-1-305	Visible Particles	N	
6-1-310	Particulate Weight Limitation	N	
6-1-310.3	Heat Transfer Operations (HRSG Only)	N	
6-1-401	Appearance of Emissions	N	
<b>SIP Regulation 6</b>	<b>Particulate Matter and Visible Emissions (9/4/98)</b>		
6-301	Ringelmann Number 1 Limitation	Y	
6-304	Tube Cleaning (HRSG Only)	Y	
6-305	Visible Particles	Y	
6-310	Particulate Weight Limitation	Y	

## IV. Source-Specific Applicable Requirements

**Table IV – A**  
**Source-specific Applicable Requirements**  
**S-1, S-3, S-5, GAS TURBINE #1, #2, #3**  
**S-2, S-4, S-6, HEAT RECOVERY STEAM GENERATOR #1, #2, #3**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
6-310.3	Heat Transfer Operations	Y	
6-401	Appearance of Emissions	Y	
<b>BAAQMD Regulation 9, Rule 1</b>	<b>Inorganic Gaseous Pollutants – Sulfur Dioxide (3/15/95)</b>		
9-1-301	Limitations on Ground Level Concentrations	Y	
9-1-302	General Emission Limitations	Y	
BAAQMD Regulation 9, Rule 3	Inorganic Gaseous Pollutants – Nitrogen Oxides from Heat Transfer Operations (3/17/82)		
9-3-303	Nitrogen oxide emission limitation	Y	
<b>BAAQMD Regulation 9, Rule 9</b>	<b>Inorganic Gaseous Pollutants-Nitrogen Oxides from Stationary Gas Turbines (12/6/06)</b>		
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 $\geq$ 10 MW w/SCR	N	
9-9-301.2	Emission Limits, General	N	
9-9-401	Certification, Efficiency	N	
9-9-501	Monitoring and recordkeeping requirements	N	
<b>SIP Regulation 9 Rule 9</b>	<b>Inorganic Gaseous Pollutants-Nitrogen Oxides from Stationary Gas Turbines (12/15/97)</b>		
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 greater than 10 MW with SCR, NO <sub>x</sub> less than 9 ppmv (dry, 15% O <sub>2</sub> )	Y	
9-9-501	Monitoring and recordkeeping requirements	Y	
<b>BAAQMD Regulation 10 Subpart GG</b>	<b>NSPS Incorporation by Reference, Stationary Gas Turbines (2/16/2000)</b>		



## IV. Source-Specific Applicable Requirements

**Table IV – A**  
**Source-specific Applicable Requirements**  
**S-1, S-3, S-5, GAS TURBINE #1, #2, #3**  
**S-2, S-4, S-6, HEAT RECOVERY STEAM GENERATOR #1, #2, #3**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
10-40.	Subpart GG - Standards of Performance For Stationary Gas Turbines	Y	
<b>BAAQMD Manual of Procedures, Volume V</b>	<b>Continuous Emission Monitoring Policy and Procedures (1/20/82)</b>	Y	
<b>40 CFR 60 Subpart A</b>	<b>Standards of Performance for New Stationary Sources – General Provisions (1/28/09)</b>	Y	
60.7	Notification and Recordkeeping	Y	
60.8	Performance Tests	Y	
60.9	Availability of Information	Y	
60.11	Compliance with standards and maintenance requirements	Y	
60.11(a)	Compliance with standards in this part	Y	
60.11(d)	Minimizing emissions	Y	
60.12	Circumvention	Y	
60.13	Monitoring Requirements	Y	
60.19	General notification and reporting requirements	Y	
Subpart Db	Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units (1/28/09)	Y	
60.44b(a)(4)	NOx Emission Limit	Y	
60.44b(h)	NOx limit applicable at all times	Y	
60.44b(i)	Compliance: 24-hr averaging period (per BAAQMD Regulation 10, part 4)	Y	
60.46b(a)	NOx limits apply at all times	Y	
60.46b(c)	Compliance with NOx emission limit	Y	
60.46b(e)	Performance test for NOx	Y	
60.46b(f)	Procedures for determining compliance with NOx emission limit	Y	
60.48b(b)	CEMs for NOx Standard, except as provided in (g), (h), and (i) of this section	Y	
60.48b(h)	CEMs not required for duct burner subject to 60.44b(a)(4)	Y	
60.49b(a)	Notification of Initial Startup	Y	
60.49b(b)	Submittal of Performance Test Reports and CEM performance evaluation	Y	
60.49b(d)	Fuel records	Y	
60.49b(g)	Records for each day of operation	Y	

## IV. Source-Specific Applicable Requirements

**Table IV – A**  
**Source-specific Applicable Requirements**  
**S-1, S-3, S-5, GAS TURBINE #1, #2, #3**  
**S-2, S-4, S-6, HEAT RECOVERY STEAM GENERATOR #1, #2, #3**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
60.49b(h)(2)	Excess emission reports	Y	
60.49b(o)	Records retention for two years	Y	
<b>40 CFR 60 Subpart GG</b>	<b>Standards of Performance for Stationary Gas Turbines (2/24/06)</b>		
60.332(a)(1)	NO <sub>x</sub> limit	Y	
60.333	Standard for sulfur dioxide	Y	
60.333(a)	SO <sub>2</sub> Concentration < 0.015 percent @15% O <sub>2</sub>	Y	
60.333(b)	Fuel Sulfur Content cannot exceed 0.8 percent by weight (Turbine Only)	Y	
60.334	Monitoring of operations	Y	
60.334(c)	NO <sub>x</sub> CEMs	Y	
60.334(h)(3)	Exemption from sulfur fuel monitoring requirements (Natural Gas)	Y	
60.334(j)(1)(iii)	NO <sub>x</sub> Excess Emissions and Monitor Downtime reporting requirements	Y	
60.335	Test Methods and Procedures	Y	
<b>40 CFR Part 72</b>	<b>Title IV – Acid Rain Program</b>	Y	
	Subpart A – Acid Rain Program General Requirements		
72.6	Applicability	Y	
72.6(a)(3)	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 SO <sub>2</sub> 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	

## IV. Source-Specific Applicable Requirements

**Table IV – A**  
**Source-specific Applicable Requirements**  
**S-1, S-3, S-5, GAS TURBINE #1, #2, #3**  
**S-2, S-4, S-6, HEAT RECOVERY STEAM GENERATOR #1, #2, #3**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
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	
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	
<b>40 CFR Part 75</b>	<b>Code of Federal Regulations, Continuous Emissions Monitoring</b>	Y	
	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-3, S-5, GAS TURBINE #1, #2, #3**  
**S-2, S-4, S-6, HEAT RECOVERY STEAM GENERATOR #1, #2, #3**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
75.2(c)	The provisions of this part apply to sources subject to a State or federal NO <sub>x</sub> mass emission reduction program, to the extent these provisions are adopted as requirements under such a program	Y	
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)	SO <sub>2</sub> Emissions, except as provided in §§75.11 and 75.16 and subpart E of this part	Y	
75.10(a)(2)	NO <sub>x</sub> Emissions, except as provided in §§75.12 and 75.17 and subpart E of this part	Y	
75.10(a)(3)	CO <sub>2</sub> Emissions	Y	
75.10(a)(3)(ii)	CO <sub>2</sub> Emissions estimated using Carbon Content of fuel and procedures in Appendix G.	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	
75.11(d)	Gas-fired and oil-fired units	Y	
75.11(d)(2)	Allows the use of Appendix D Optional SO <sub>2</sub> Emissions Data Protocol for Gas-Fired and Oil-Fired Units to monitor SO <sub>2</sub> emissions.	Y	
75.12	Specific provisions for monitoring NO <sub>x</sub> emission rate	Y	
75.12(a)	NO <sub>x</sub> continuous emission monitor and diluent monitoring requirement	Y	
75.12(c)	NO <sub>x</sub> mass emission rate determination according to Appendix F	Y	
75.13	Specific provisions for monitoring CO <sub>2</sub> emissions	Y	
75.13(b)	Determination of CO <sub>2</sub> 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	

## IV. Source-Specific Applicable Requirements

**Table IV – A**  
**Source-specific Applicable Requirements**  
**S-1, S-3, S-5, GAS TURBINE #1, #2, #3**  
**S-2, S-4, S-6, HEAT RECOVERY STEAM GENERATOR #1, #2, #3**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
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 monitoring systems under appendices D and E	Y	
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	
75.32	Determination of monitor data availability for standard missing data procedures	Y	
75.33	Standard missing data procedures for SO <sub>2</sub> , NO <sub>x</sub> , 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 NO <sub>x</sub> 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, NO <sub>x</sub> emission rate and NO <sub>x</sub> concentration data	Y	
75.34	Units with add-on emission controls	Y	
75.35	Missing data procedures for CO <sub>2</sub>	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)	SO <sub>2</sub> emission record provisions	Y	
75.57(d)	NO <sub>x</sub> emission record provisions	Y	
75.57(e)	CO <sub>2</sub> emission record provisions	Y	
75.57(g)	Diluent record provisions	Y	

## IV. Source-Specific Applicable Requirements

**Table IV – A**  
**Source-specific Applicable Requirements**  
**S-1, S-3, S-5, GAS TURBINE #1, #2, #3**  
**S-2, S-4, S-6, HEAT RECOVERY STEAM GENERATOR #1, #2, #3**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
75.57(h)	Missing data records	Y	
75.58	General recordkeeping provisions for specific situations	Y	
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 SO <sub>2</sub> 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 SO <sub>2</sub> 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)	Excepted 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 on-site in the quality assurance/quality control plan required by section 1 of appendix B to this part:	Y	
75.59(f)	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	
75.66	Petitions to the administrator	Y	
<b>40 CFR Part 98</b>	<b>Mandatory Greenhouse Gas Reporting</b>		
Subpart A	General Provisions		
98.1	Purpose and scope	Y	
98.2	Who must report?	Y	
98.2(a)(1)(i)	Electricity Generation	Y	
98.2(g)	If a capacity or generation reporting threshold in paragraph (a)(1) of this section applies, the owner or operator shall review the appropriate records and perform any necessary calculations to determine whether the threshold has been exceeded	Y	

## IV. Source-Specific Applicable Requirements

**Table IV – A**  
**Source-specific Applicable Requirements**  
**S-1, S-3, S-5, GAS TURBINE #1, #2, #3**  
**S-2, S-4, S-6, HEAT RECOVERY STEAM GENERATOR #1, #2, #3**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
98.2(i)	Duration of reporting	Y	
98.3	What are the general monitoring, reporting, recordkeeping and verification requirements of this part?	Y	
98.3(a)	General	Y	
98.3(b)	Schedule	Y	
98.3(c)	Content of the annual report	Y	
98.3(d)	Special provisions for reporting year 2010	Y	
98.3(e)	Emission calculations	Y	
98.3(f)	Verification	Y	
98.3(g)	Recordkeeping	Y	
98.3(h)	Annual GHG report revisions	Y	
98.3(i)	Calibration accuracy requirements	Y	
98.4	Authorization and responsibilities of the designated representative	Y	
98.5	How is the report submitted?	Y	
98.8	What are the compliance and enforcement provisions of this part?	Y	
Subpart D	Electricity Generation	Y	
98.40	Definition of source category	Y	
98.41	Reporting threshold	Y	
98.42	GHGs to report	Y	
98.43	Calculating GHG emissions	Y	
98.44	Monitoring and QA/QC requirements	Y	
98.45	Procedures for estimating missing data	Y	
98.46	Data reporting requirements	Y	
98.47	Records that must be retained	Y	
<b>CA Code of Regulations, Title 17, Subchapter 10, Article 2</b>	<b>Mandatory Greenhouse Gas Emissions Reporting</b>		
§ 95101(b)(4)	Applicability (electricity generating facilities)	N	
Subarticle 1	General Requirements for the Mandatory Reporting of Greenhouse Gas Emissions		
§ 95103(a)	General Greenhouse Gas Reporting Requirements	N	
§ 95103(a)(1)	Report Content	N	
§ 95103(a)(2)	Stationary Sources	N	
§ 95103(b)	Reporting Schedule – Existing Facilities	N	
§ 95103(c)	Verification – Existing Facilities	N	
§ 95104	Greenhouse Gas Emissions Data Report	N	
§ 95104(a)	Emissions Data Report	N	
§ 95104(b)	Maintaining the GHG Inventory Program	N	
§ 95104(c)	Data Completeness	N	
§ 95104(d)	Revisions	N	
§ 95105	Document Retention and Record Keeping Requirements	N	
§ 95106	Confidentiality	N	
§ 95107	Enforcement	N	

## IV. Source-Specific Applicable Requirements

**Table IV – A**  
**Source-specific Applicable Requirements**  
**S-1, S-3, S-5, GAS TURBINE #1, #2, #3**  
**S-2, S-4, S-6, HEAT RECOVERY STEAM GENERATOR #1, #2, #3**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
§ 95108	Severability	N	
§ 95111(a)	Data Requirements and Calculation Methods for Electricity Generating Facilities	N	
§ 95111(c)	Calculation of CO <sub>2</sub> Emissions from Stationary Combustion	N	
§ 95111(d)	Calculation of N <sub>2</sub> O and CH <sub>4</sub> from Stationary Combustion	N	
§ 95111(f)	Determining Fugitive SF <sub>6</sub> Emissions	N	
§ 95111(g)	Determining Fugitive HFC Emissions	N	
Subarticle 3	Calculation Methods Applicable To Multiple Types of Facilities		
§ 95125	Additional Calculation Methods	N	
Subarticle 4	Requirements for Verification of Greenhouse Gas Emissions Data Reports and Requirements Applicable to Emissions Data Verifiers		
§ 95130	Requirements for Verification of Emissions Data Reports	N	
<b>BAAQMD Condition #17154</b>			
Definitions	Definitions	Y	
part 14	Requirement for combustion of natural gas with a maximum sulfur content of 1.0 gr/100 scf (BACT for SO <sub>2</sub> and PM <sub>10</sub> )	Y	
part 15	Hourly heat input limit (PSD for NO <sub>x</sub> )	Y	
part 16	Daily heat input limit (PSD for PM <sub>10</sub> )	Y	
part 17	Annual heat input limit (Offsets)	Y	
part 18	Duct burners shall not be fired unless turbines are in operation (BACT for NO <sub>x</sub> , CO, POC)	Y	
part 19	SCR System requirement (BACT for NO <sub>x</sub> ) for S-1 and S-2	Y	
part 20	SCR System requirement (BACT for NO <sub>x</sub> ) for S-3 and S-4	Y	
part 21	SCR System requirement (BACT for NO <sub>x</sub> ) for S-5 and S-6	Y	
part 22	Emission limits (BACT, PSD, and Regulation 2, Rule 5)	Y	
part 22a	Hourly and heat-input rate NO <sub>x</sub> limits (PSD for NO <sub>x</sub> )	Y	
part 22b	NO <sub>x</sub> concentration limit (BACT for NO <sub>x</sub> )	Y	
part 22c	Hourly and heat-input rate CO limits (PSD for CO)	Y	
part 22d	CO concentration limit (BACT for CO)	Y	
part 22e	Ammonia concentration limit and monitoring (Regulation 2, Rule 5 for NH <sub>3</sub> )	N	
part 22f	Hourly and heat-input rate POC limits (BACT for POC)	Y	
part 22h	Hourly and heat-input rate PM <sub>10</sub> limits (BACT for PM <sub>10</sub> )	Y	
part 23	Limits during startup, shutdown, steam turbine cold start-up, or combustor tuning (PSD)	Y	



## IV. Source-Specific Applicable Requirements

**Table IV – A**  
**Source-specific Applicable Requirements**  
**S-1, S-3, S-5, GAS TURBINE #1, #2, #3**  
**S-2, S-4, S-6, HEAT RECOVERY STEAM GENERATOR #1, #2, #3**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
part 24	Turbines may not be in startup mode simultaneously (PSD)	Y	
part 24	Limit on operation to support steam turbine cold start-up or combustor tuning (PSD)	Y	
part 25	HRSG designed to accept oxidation catalyst (BACT for CO)	Y	
part 36	Daily Combined Emission Limits for Gas Turbines and HRSGs (CEQA, PSD, BACT)	Y	
part 37	Annual Combined Emission Limits for Gas Turbines and HRSGs (Offsets, cumulative increase, PSD)	Y	
part 38	Annual emission limits for toxic air contaminants for Gas Turbines and HRSGs (Regulation 2, Rule 5)	N	
part 39	Monitoring (1-520.1, 9-9-501, BACT, Offsets, NSPS, PSD, Cumulative Increase)	Y	
part 40	Calculation of emissions and recordkeeping (Offsets, PSD, Cumulative Increase)	Y	
part 41	Calculation of emissions and recordkeeping for toxic air contaminants (Regulation 2, Rule 5)	N	
part 42	Ammonia slip source test (Regulation 2, Rule 5)	N	
part 43	Source test to determine compliance with parts 22a, b, c, d and f (BACT, offsets)	Y	
part 44	District review of source test procedures (BACT)	Y	
part 45	Initial and biennial source tests for toxic air contaminants (Regulation 2, Rule 5)	N	
part 46	Submittal of reports (2-6-502)	Y	
part 47	Retention of records for five years (2-6-502)	Y	
part 48	Notification of violations to District (2-1-403)	Y	
part 49	Stack heights (PSD, Regulation 2, Rule 5)	Y	
part 50	Sampling ports and platforms (1-501)	Y	
part 51	Review of continuous monitors, sampling ports, platforms, and source tests (1-501)	Y	
part 55	Submittal of Title IV application (40 CFR 72.30(b)(2))	Y	
part 62	Records of steam turbine cold start-ups and combustor tuning (PSD)	Y	

#### IV. Source-Specific Applicable Requirements

**Table IV-B  
 S-9, COOLING TOWER**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
<b>BAAQMD Regulation 6</b>	<b>Particulate Matter and Visible Emissions (12/5/07)</b>		
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	
<b>SIP Regulation 6</b>	<b>Particulate Matter and Visible Emissions (9/4/98)</b>		
6-301	Ringelmann Number 1 Limitation	Y	
6-305	Visible Particles	Y	
6-310	Particulate Weight Limitation	Y	
6-401	Appearance of Emissions	Y	
<b>BAAQMD Condition #17154</b>			
part 58	Maximum Drift Rate and total dissolved solids (Basis: PSD, BACT, cumulative increase)	Y	
part 59	Visual Inspection (Basis: PSD, BACT, cumulative increase)	Y	

**Table IV-C  
 S-10, FIRE PUMP DIESEL ENGINE**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
<b>BAAQMD Regulation 6, Rule 1</b>	<b>Particulate Matter and Visible Emissions (12/5/07)</b>		
6-1-303.1	Ringelmann Number 2 Limitation	N	
6-1-305	Visible Particles	N	
6-1-310	Particulate Weight Limitation	N	
6-1-401	Appearance of Emissions	N	
<b>SIP Regulation 6</b>	<b>Particulate Matter and Visible Emissions (9/4/98)</b>		

## IV. Source-Specific Applicable Requirements

**Table IV-C**  
**S-10, FIRE PUMP DIESEL ENGINE**

<b>Applicable Requirement</b>	<b>Regulation Title or Description of Requirement</b>	<b>Federally Enforceable (Y/N)</b>	<b>Future Effective Date</b>
6-303.1	Ringelmann Number 2 Limitation	Y	
6-305	Visible Particles	Y	
6-310	Particulate Weight Limitation	Y	
6-401	Appearance of Emissions	Y	
<b>BAAQMD Regulation 9, Rule 1</b>	<b>Inorganic Gaseous Pollutants - Sulfur Dioxide (3/15/95)</b>		
9-1-301	Limitations on Ground Level Concentrations	Y	
9-1-304	Fuel Burning (Liquid and Solid Fuels)	Y	
<b>BAAQMD Regulation 9, Rule 8</b>	<b>Nitrogen Oxides and Carbon Monoxide from Stationary Internal Combustion Engines (7/25/07)</b>		
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	
9-8-330.2	100 hours for reliability and maintenance	N	
9-8-330.3	50 hours for reliability and maintenance	N	1/1/12
<b>Section 93115, title 17, CCR</b>	<b>Airborne Toxic Control Measure for Stationary Compression Ignition Engines</b>		
93115.5(b)	Fuel Requirements	N	
93115.6(b)(3)(A)	PM Emission Standards & Maximum Hours of Operation for Maintenance and Testing	N	
93115.6(b)(3)(B)	Applicable Emissions Standards for HC, NO <sub>x</sub> , NMHC+NO <sub>x</sub> , and CO	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)	Monitoring Equipment	N	
93115.10(g)	Monthly Log: Data Required	N	
93115.10(g).	Data Log Retention	N	
93115.12	Tiered Compliance Schedule	N	
<b>BAAQMD Condition #22851</b>			

#### IV. Source-Specific Applicable Requirements

**Table IV-C**  
**S-10, FIRE PUMP DIESEL ENGINE**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
part 1	34 hours/year for maintenance and testing. Engine subject to NFPA 25 test requirements. ("Stationary Diesel Engine ATCM" section 93115, title 17 CCR)	N	
part 2	Unlimited Emergency Use, (Stationary Diesel Engine ATCM" section 93115, title 17 CCR, subsection (e)(2)(B)(3))	N	
part 3	Totalizing Meter, (Stationary Diesel Engine ATCM" section 93115, title 17, CCR, subsection (e)(4)(G)(1))	N	
part 4	Recordkeeping, (Stationary Diesel Engine ATCM" section 93115, title 17 CCR, subsection (e)(4)(I), (or, Regulation 2-6-501))	N	
part 5	Near School Conditions, (Stationary Diesel Engine ATCM" section 93115, title 17 CCR, subsection (e)(2)(A)(1) or (e)(2)(B)(2))	N	

**Table IV-D**  
**S-11, EMERGENCY GENERATOR (NATURAL GAS)**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
<b>BAAQMD Regulation 6</b>	<b>Particulate Matter and Visible Emissions (12/5/07)</b>		
6-1-303	Ringelmann Number 2 Limitation	N	
6-1-305	Visible Particles	N	
6-1-310	Particulate Weight Limitation	N	
6-1-401	Appearance of Emissions	N	
<b>SIP Regulation 6</b>	<b>Particulate Matter and Visible Emissions (9/4/98)</b>		
6-303	Ringelmann Number 2 Limitation	Y	
6-305	Visible Particles	Y	
6-310	Particulate Weight Limitation	Y	
6-401	Appearance of Emissions	Y	

#### IV. Source-Specific Applicable Requirements

**Table IV-D**  
**S-11, EMERGENCY GENERATOR (NATURAL GAS)**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
<b>BAAQMD Regulation 9, Rule 1</b>	<b>Inorganic Gaseous Pollutants - Sulfur Dioxide (3/15/95)</b>		
9-1-301	Limitations on Ground Level Concentrations	Y	
9-1-302	General Emission Limitations	Y	
<b>BAAQMD Regulation 9, Rule 8</b>	<b>Nitrogen Oxides and Carbon Monoxide from Stationary Internal Combustion Engines (7/25/07)</b>		
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	
9-8-330.2	100 hours for reliability and maintenance	N	
9-8-330.3	50 hours for reliability and maintenance	N	1/1/12
<b>BAAQMD Condition #21609</b>			
Part 1	100 hours/year for maintenance and testing. (Regulation 9-8-330)	Y	
Part 2	Totalizing Meter, (Regulation 9-8-530)	Y	
Part 3	Recordkeeping, (Regulations 9-8-530 and 1-441)	Y	

## 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

Any condition that is preceded by an asterisk is not federally enforceable.

### **Condition #17154 for:**

S-1, S-3, & S-5 Gas Turbines, S-2, S-4, & S-6 HRSGs, and S-9 Cooling Tower

### **Definitions:**

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
Heat Input:	All heat inputs refer to the heat input at the higher heating value (HHV) of the fuel, in BTU/scf.
Rolling 3-hour period:	Any three-hour period that begins on the hour and does not include start-up or shutdown periods.
Firing Hours:	Period of time during which fuel is flowing to a unit, measured in fifteen minute increments.
MM BTU:	million British thermal units
Gas Turbine Start-up Mode:	The lesser of the first 180 minutes of continuous fuel flow to the Gas 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 parts 22(b) and 22(d).
Steam Turbine Cold Start-up:	The lesser of the first 360 minutes of continuous fuel flow to the Gas 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 22(b) and 22(d), following a steam turbine shutdown of at least 72 hours.
Gas Turbine Shutdown Mode:	The lesser of the 30-minute period immediately prior to the termination of fuel flow to the Gas Turbine or the period of time from non-compliance with any requirement listed in parts 22(b) through 22(d) until termination of fuel flow to the Gas Turbine.
Specified PAHs:	The polycyclic aromatic hydrocarbons listed below shall be considered Specified PAHs for these permit conditions. Any

## VI. Permit Conditions

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 point P-1 (S-1 Gas Turbine and S-2 HRSG), emission point P-2 (S-3 Gas Turbine and S-4 HRSG), and emission point P-3 (S-5 Gas Turbine and S-6 HRSG) the standard stack gas oxygen concentration is 15% O<sub>2</sub> by volume on a dry basis.
- Commissioning Activities: All testing, adjustment, tuning, and calibration activities recommended by the equipment manufacturers and the DEC construction contractor to insure safe and reliable steady state operation of the gas turbines, heat recovery steam generators, steam turbine, auxiliary boiler, and associated electrical delivery systems.
- Commissioning Period: The Period shall commence when all mechanical, electrical, and control systems are installed and individual system start-up has been completed, or when a gas turbine is first fired, whichever occurs first. The period shall terminate when the plant has completed performance testing, is available for commercial operation, and has initiated sales to the power exchange. The commissioning period shall not exceed 180 days under any circumstances.
- Combustor Tuning Activities: Any testing, adjustment, tuning, and calibration activities recommended by the gas turbine manufacturer to insure safe and reliable steady-state operation of the gas turbines following replacement of the combustor components, during seasonal tuning events, when recommended by the turbine manufacturer, or as necessary to maintain low emissions performance. This includes, but is not limited to, adjusting the amount of fuel distributed between the combustion turbine's staged fuel systems to simultaneously minimize NO<sub>x</sub> and CO production while minimizing combustor dynamics and ensuring combustor stability.
- Combustor Tuning Period: The cumulative period, not to exceed 360 minutes, during which combustor tuning activities are taking place
- 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

## VI. Permit Conditions

DEC: Delta Energy Center

### Conditions for the Commissioning Period

1. Deleted under Application 8341
2. Deleted under Application 8341
3. Deleted under Application 8341
4. Deleted under Application 8341
5. Deleted under Application 8341
6. Deleted under Application 8341
7. Deleted under Application 8341
8. Deleted under Application 8341
9. Deleted under Application 8341
10. Deleted under Application 8341
11. Deleted under Application 8341
12. Deleted under Application 8341
13. Deleted under Application 8341

### Conditions for the Gas Turbines (S-1, S-3, & S-5) and the Heat Recovery Steam Generators (HRSGs; S-2, S-4, & S-6).

14. The owner/operator shall fire the Gas Turbines (S-1, S-3, and S-5) and HRSG Duct Burners (S-2, S-4, and S-6) exclusively on natural gas with a maximum sulfur content of 1.0 grain per 100 standard cubic feet. (BACT for SO<sub>2</sub> and PM<sub>10</sub>)
15. The owner/operator shall not operate the units such that the combined heat input rate to each power train consisting of a Gas Turbine and its associated HRSG (S-1 & S-2, S-3 & S-4, and S-5 & S-6) exceeds 2,125 MM BTU per hour, averaged over any rolling 3-hour period. (PSD for NO<sub>x</sub>)
16. The owner/operator shall not operate the units such that the combined heat input rate to each power train consisting of a Gas Turbine and its associated HRSG (S-1 & S-2 and S-3 & S-4) exceeds 50,024 MM BTU per calendar day. (PSD for PM<sub>10</sub>)



## VI. Permit Conditions

17. The owner/operator shall not operate the units such that the-combined cumulative heat input rate for the Gas Turbines (S-1, S-3, & S-5) and the HRSGs (S-2, S-4, & S-6) exceeds 53,188,532 MM BTU per year. (Offsets)
18. The owner/operator shall not fire the HRSG duct burners (S-2, S-4, and S-6) unless its associated Gas Turbine (S-1, S-3, and S-5, respectively) is in operation. (BACT for NO<sub>x</sub>)
19. The owner/operator shall ensure that S-1 Gas Turbine and S-2 HRSG are abated by the properly operated and properly maintained A-1 Selective Catalytic Reduction (SCR) System whenever fuel is combusted at those sources and the A-1 catalyst bed has reached minimum operating temperature. (BACT for NO<sub>x</sub>)
20. The owner/operator shall ensure that S-3 Gas Turbine and S-4 HRSG are abated by the properly operated and properly maintained A-2 Selective Catalytic Reduction (SCR) System whenever fuel is combusted at those sources and the A-2 catalyst bed has reached minimum operating temperature. (BACT for NO<sub>x</sub>)
21. The owner/operator shall ensure that S-5 Gas Turbine and S-6 HRSG are abated by the properly operated and properly maintained A-3 Selective Catalytic Reduction (SCR) System whenever fuel is combusted at those sources and the A-3 catalyst bed has reached minimum operating temperature. (BACT for NO<sub>x</sub>)
22. The owner/operator shall ensure that the Gas Turbines (S-1, S-3, & S-5) and HRSGs (S-2, S-4, & S-6) comply with requirements (a) through (h) under all operating scenarios, including duct burner firing mode and steam injection power augmentation mode. Requirements (a) through (h) do not apply during a gas turbine start-up or shutdown, a steam turbine cold start-up, or a gas turbine combustor tuning period. (BACT, PSD, and Regulation 2, Rule 5)
  - (a) Nitrogen oxide mass emissions (calculated as NO<sub>2</sub>) at P-1 (the combined exhaust point for the S-1 Gas Turbine and the S-2 HRSG after abatement by A-1 SCR System) shall not exceed 19.2 pounds per hour or 0.00904 lb/MM BTU (HHV) of natural gas fired. Nitrogen oxide mass emissions (calculated as NO<sub>2</sub>) at P-2 (the combined exhaust point for the S-3 Gas Turbine and the S-4 HRSG after abatement by A-3 SCR System) shall not exceed 19.2 pounds per hour or 0.00904 lb/MM BTU (HHV) of natural gas fired. Nitrogen oxide mass emissions (calculated as NO<sub>2</sub>) at P-3 (the combined exhaust point for the S-5 Gas Turbine and the S-6 HRSG after abatement by A-3 SCR System) shall not exceed 19.2 pounds per hour or 0.00904 lb/MM BTU (HHV) of natural gas fired. (PSD for NO<sub>x</sub>)
  - (b) The nitrogen oxide emission concentration at emission points P-1, P-2, and P-3 each shall not exceed 2.5 ppmv, on a dry basis, corrected to 15% O<sub>2</sub>, averaged over any 1-hour period. (BACT for NO<sub>x</sub>)

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- (c) Carbon monoxide mass emissions at P-1, P-2, and P-3 each shall not exceed 0.022 lb/MM BTU (HHV) of natural gas fired or 46.75 pounds per hour, averaged over any rolling 3-hour period. If compliance test results or continuous emissions monitoring data indicate that this level cannot be achieved during power steam augmentation operations, the owner/operator may seek approval for a higher CO mass emission limit for this operating mode, not to exceed 113.7 pounds per hour or 0.0535 lb/MM BTU of natural gas fired. (PSD for CO)
  - (d) The carbon monoxide emission concentration at P-1, P-2, and P-3 each shall not exceed 10 ppmv, on a dry basis, corrected to 15% O<sub>2</sub>, averaged over any rolling 3-hour period. If compliance test results or continuous emissions monitoring data indicate that this level cannot be achieved during power steam augmentation operations, the owner/operator may seek approval for a higher CO emission limit for this operating mode, not to exceed 24.3 ppmv, on a dry basis, corrected to 15% O<sub>2</sub>, averaged over any rolling 3-hour period. (BACT for CO)
  - \*(e) Ammonia (NH<sub>3</sub>) emission concentrations at P-1, P-2, and P-3 each shall not exceed 10 ppmv, on a dry basis, corrected to 15% O<sub>2</sub>, averaged over any rolling 3-hour period. This ammonia emission concentration shall be verified by the continuous recording of the ammonia injection rate to A-1, A-2, and A-3 SCR Systems. The correlation between the gas turbine and HRSG heat input rates, A-1, A-2, and A-3 SCR System ammonia injection rates, and corresponding ammonia emission concentration at emission points P-1, P-2, and P-3 shall be determined in accordance with part #42. (Regulation 2, Rule 5 for NH<sub>3</sub>)
  - (f) Precursor organic compound (POC) mass emissions (as CH<sub>4</sub>) at P-1, P-2, and P-3 each shall not exceed 5.33 pounds per hour or 0.00251 lb/MM BTU of natural gas fired. (BACT)
  - (g) Deleted under application 9249
  - (h) Particulate matter (PM<sub>10</sub>) mass emissions at P-1, P-2, and P-3 each shall not exceed 9 pounds per hour or 0.00424 lb/MM BTU of natural gas fired. (BACT)
23. The owner/operator shall ensure that the regulated air pollutant mass emission rates from each of the Gas Turbines (S-1, S-3, and S-5) during a start-up or a shutdown, or during a combustor tuning period do not exceed the limits established below. (PSD)

	Start-Up (lb/start-up)	Shutdown (lb/shutdown)	Steam Turbine Cold Start-up or Combustor Tuning Period (lb/start-up or lb/period)
Oxides of Nitrogen (as NO <sub>2</sub> )	24080		300
Carbon Monoxide (CO)	2,514	902	9,750
Precursor Organic Compounds (as CH <sub>4</sub> )	48	16	96

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24. The owner/operator shall ensure that no more than one of the Gas Turbines (S-1, S-3, and S-5) shall be in start-up mode, supporting a steam turbine cold start-up, or undergoing combustor tuning at any one time. The total number of hours during which the Gas Turbines (S-1, S-3, and S-5) may be operated to support a steam turbine cold start-up or may undergo combustor tuning shall not exceed 30 hours per year per gas turbine. (PSD)
25. The owner/operator shall ensure that the heat recovery steam generators (S-2, S-4, & S-6) and associated ducting are designed in such a manner that an oxidation catalyst can be readily installed and properly operated if deemed necessary by the APCO to insure compliance with the CO emission rate limitations of parts 22(c) and 22(d). (BACT)
26. Deleted
27. Deleted
28. Deleted
29. Deleted
30. Deleted
31. Deleted
32. Deleted
33. Deleted
34. Deleted
35. Deleted
36. The owner/operator shall ensure that the total combined emissions from the Gas Turbines, and HRSGs (S-1, S-2, S-3, S-4, S-5, and S-6) including emissions generated during Gas Turbine start-ups and shutdowns, steam turbine cold start-ups, and combustor tuning activities do not exceed the following limits during any calendar day:
  - (a) 1,990.8 pounds of NO<sub>x</sub> (as NO<sub>2</sub>) per day (CEQA)
  - (b) 12,756.4 pounds of CO per day (PSD)
  - (c) 478.2 pounds of POC (as CH<sub>4</sub>) per day (CEQA)
  - (d) 648 pounds of PM<sub>10</sub> per day (PSD)
  - (e) deleted under application 9249
37. The owner/operator shall ensure that the cumulative combined emissions from the Gas Turbines, and HRSGs, (S-1, S-2, S-3, S-4, S-5, and S-6) including emissions generated during gas turbine start-ups, and gas turbine shutdowns, steam turbine cold start-ups, and

## VI. Permit Conditions

combustor tuning activities do not exceed the following limits during any consecutive twelve-month period:

- (a) 240.2 tons of NO<sub>x</sub> (as NO<sub>2</sub>) per year (Offsets, PSD)
- (b) 1,105.4 tons of CO per year (Cumulative Increase)
- (c) 64.68 tons of POC (as CH<sub>4</sub>) per year (Offsets)
- (d) 118.26 tons of PM<sub>10</sub> per year (Offsets, PSD)
- (e) 18.42 tons of SO<sub>2</sub> per year (Cumulative Increase)

\*38. The owner/operator shall not allow the maximum projected annual toxic air contaminant emissions (per part 45) from the Gas Turbines, and HRSGs combined (S-1, S-2, S-3, S-4, S-5, and S-6) to exceed the following limits:

- (a) 5,691 pounds of formaldehyde per year
- (b) 704 pounds of benzene per year
- (c) 120 pounds of Specified polycyclic aromatic hydrocarbons (PAHs) per year

unless requirement (d) is satisfied:

- (d) The owner/operator shall perform a health risk assessment using the emission rates determined by source test and the most current Bay Area Air Quality Management District approved procedures and unit risk factors in effect at the time of the analysis. This risk analysis shall be submitted 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 limits specified above. If the owner/operator demonstrates to the satisfaction of the APCO that these revised emission limits will result in a cancer risk of not more than 1.0 in one million, the District and the CEC CPM may, at their discretion, adjust the carcinogenic compound emission limits listed above. (Regulation 2, Rule 5)

39. The owner/operator shall demonstrate compliance with parts 19 through 21, 22(a) through 22(d), 23, 24, 36(a), 36(b), 37(a), and 37(b) by using properly operated and maintained continuous monitors (during all hours of operation including equipment Start-up and Shutdown and combustor tuning periods) for all of the following parameters:

- (a) Firing Hours and Fuel Flow Rates for each of the following sources: S-1 and S-2 combined, S-3 and S-4 combined, and S-5 and S-6 combined.
- (b) Oxygen (O<sub>2</sub>) Concentrations, Nitrogen Oxides (NO<sub>x</sub>) Concentrations, and Carbon Monoxide (CO) Concentrations at each of the following exhaust points: P-1, P-2, and P-3.
- (c) Ammonia injection rate at A-1, A-2, and A-3 SCR Systems
- (d) Steam injection rate at S-1, S-3, & S-5 Gas Turbine Combustors

The owner/operator shall record all of the above parameters every 15 minutes (excluding normal calibration periods) and shall summarize all of the above parameters for each hour.

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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:

- (e) Heat Input Rate for each of the following sources: S-1 and S-2 combined, S-3 and S-4 combined, and S-5 and S-6 combined.
- (f) Corrected NO<sub>x</sub> concentrations, NO<sub>x</sub> mass emissions (as NO<sub>2</sub>), corrected CO concentrations, and CO mass emissions at each of the following exhaust points: P-1, P-2, and P-3.

For each source, source grouping, or exhaust point, the owner/operator shall record the parameters specified in parts 39(e) and 39(f) at least once every 15 minutes (excluding normal calibration periods). As specified below, the owner/operator shall calculate and record the following data:

- (g) total Heat Input Rate for every hour and the average hourly Heat Input Rate for every rolling 3-hour period.
- (h) on an hourly basis, the cumulative total Heat Input Rate for each calendar day for the following: each Gas Turbine and associated HRSG combined and all six sources (S-1, S-2, S-3, S-4, S-5, & S-6) combined.
- (i) the average NO<sub>x</sub> mass emissions (as NO<sub>2</sub>), CO mass emissions, and corrected NO<sub>x</sub> and CO emission concentrations for every hour and for every rolling 3-hour period.
- (j) on an hourly basis, the cumulative total NO<sub>x</sub> mass emissions (as NO<sub>2</sub>) and the cumulative total CO mass emissions, for each calendar day for the following: each Gas Turbine and associated HRSG combined and all eight sources (S-1, S-2, S-3, S-4, S-5, and S-6) combined.
- (k) For each calendar day, the average hourly Heat Input Rates, Corrected NO<sub>x</sub> emission concentrations, NO<sub>x</sub> mass emissions (as NO<sub>2</sub>), corrected CO emission concentrations, and CO mass emissions for each Gas Turbine and associated HRSG combined
- (l) on a daily basis, the cumulative total NO<sub>x</sub> mass emissions (as NO<sub>2</sub>) and cumulative total CO mass emissions, for the previous consecutive twelve month period for all six sources (S-1, S-2, S-3, S-4, S-5, and S-6) combined.

(1-520.1, 9-9-501, BACT, Offsets, NSPS, PSD, Cumulative Increase)

- 40. To demonstrate compliance with parts 22(f), 22(h), 36(c) through 36(d), and 37(c) through 37(e), the owner/operator shall calculate and record on a daily basis, the Precursor Organic Compound (POC) mass emissions, Fine Particulate Matter (PM<sub>10</sub>) mass emissions (including condensable particulate matter), and Sulfur Dioxide (SO<sub>2</sub>) mass emissions from each power train. The owner/operator shall use the actual Heat Input Rates calculated pursuant to part 39, actual Gas Turbine Start-up Times, actual Gas Turbine Shutdown Times, actual steam turbine cold start-up times, actual gas turbine combustor tuning times, and CEC and District-approved emission factors to calculate these emissions. For the purpose of part 37(e), the owner/operator shall calculate the annual mass SO<sub>2</sub> emissions for each power train using the

## VI. Permit Conditions

results of the fuel sulfur content testing performed pursuant to part 57 of this condition and records of natural gas usage. This calculation shall assume that all of the sulfur in the fuel is converted to SO<sub>2</sub>. For the purposes of parts 36(c), and 36(d) the owner/operator shall use the results of the annual source testing performed pursuant to part 43 to calculate daily mass POC and PM<sub>10</sub> emissions. For the purposes of parts 22(f) and 22(h), the owner operator shall use the results of the annual source testing performed pursuant to part 43 to demonstrate compliance with the hourly mass POC and PM<sub>10</sub>, emission limits. The calculated emissions shall be presented as follows:

- (a) For each calendar day, POC, PM<sub>10</sub>, and SO<sub>2</sub> Emissions shall be summarized for: each power train (Gas Turbine and its respective HRSG combined) and all six sources (S-1, S-2, S-3, S-4, S-5, and S-6) combined.
- (b) on a daily basis, the cumulative total POC, PM<sub>10</sub>, and SO<sub>2</sub> mass emissions, for each year for all six sources (S-1, S-2, S-3, S-4, S-5, and S-6) combined.  
(Offsets, PSD, Cumulative Increase)

- \*41. To demonstrate compliance with part 38, the owner/operator shall calculate and record on an annual basis the maximum projected annual emissions of: Formaldehyde, Benzene, and Specified PAH's. Maximum projected annual emissions shall be calculated using the maximum Heat Input Rate of 53,188,532 MM BTU/year and the highest emission factor (pounds of pollutant per MM BTU of Heat Input) determined by any source test at any Gas Turbine, and HRSG. (Regulation 2, Rule 5)
- \*42. Within 60 days of start-up of the DEC, the owner/operator shall conduct a District-approved source test on exhaust point P-1, P-2, or P-3 to determine the corrected ammonia (NH<sub>3</sub>) emission concentration to determine compliance with part 22(e). The source test shall determine the correlation between the heat input rates of the gas turbine and associated HRSG, A-1, A-2, or A-3 SCR System ammonia injection rate, and the corresponding NH<sub>3</sub> emission concentration at emission point P-1, P-2, or P-3. The source test shall be conducted over the expected operating range of the turbine and HRSG (including, but not limited to minimum, 70%, 85%, and 100% load) to establish the range of ammonia injection rates necessary to achieve NO<sub>x</sub> emission reductions while maintaining ammonia slip levels. Continuing compliance with part 22(e) shall be demonstrated through calculations of corrected ammonia concentrations based upon the source test correlation and continuous records of ammonia injection rate. (Regulation 2, Rule 5)
- 43. Within 60 days of start-up of the DEC and on an annual basis thereafter, the owner/operator shall conduct a District-approved source test on exhaust points P-1, P-2, and P-3 while each Gas Turbine and associated Heat Recovery Steam Generator are operating at maximum load (including steam injection power augmentation mode) to determine compliance with parts 22(a), (b), (c), (d), (f), and (h), while each Gas Turbine and associated Heat Recovery Steam Generator are operating at minimum load to determine compliance with parts 22(c) and (d), and to verify the accuracy of the continuous emission monitors required in part 39. 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

## VI. Permit Conditions

concentration and mass emissions (as NO<sub>2</sub>), carbon monoxide concentration and mass emissions, sulfur dioxide concentration and mass emissions, methane, ethane, and particulate matter (PM<sub>10</sub>) emissions including condensable particulate matter. (BACT, offsets)

44. 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 the total PM<sub>10</sub> 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. Source test results shall be submitted to the District and the CEC CPM within 60 days of conducting the tests. (BACT)
- \*45. Within 60 days of start-up of the DEC and on an biennial basis (once every two years) thereafter, the owner/operator shall conduct a District-approved source test on exhaust point P-1, P-2, or P-3 while the Gas Turbine and associated Heat Recovery Steam Generator are operating at maximum allowable operating rates to demonstrate compliance with part 38. Unless the requirements of part 45(b) have been met, the owner/operator shall determine the formaldehyde, benzene, and Specified PAH emission rates (in pounds/MM BTU). If any of the above pollutants are not detected (below the analytical detection limit), the emission concentration for that pollutant shall be deemed to be one half (50%) of the detection limit concentration. (Regulation 2, Rule 5)
- (a) The owner/operator shall calculate the maximum projected annual emission rate for each pollutant by multiplying the pollutant emission rate (in pounds/MM BTU; determined by source testing) by 53,188,532 MM BTU/year.
- (b) If three consecutive biennial source tests demonstrate that the annual emission rates calculated pursuant to part (a) for any of the compounds listed below are less than the BAAQMD Regulation 2, Rule 5 trigger levels shown, then the owner/operator may discontinue future testing for that pollutant:

Benzene	≤	221 pounds/year
Formaldehyde	≤	1,834 pounds/year
Specified PAHs	≤	38 pounds/year

(Regulation 2, Rule 5)

46. The owner/operator of the DEC shall submit all reports (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

## VI. Permit Conditions

Enforcement Division Policies & Procedures Manual. (Regulation 2-6-502)

47. The owner/operator of the DEC 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 steam turbine cold start-up and gas turbine combustor tuning activities, 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. (Regulation 2-6-501)
48. The owner/operator of the DEC 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, the Manual of Procedures, and standard condition I.F. Notwithstanding the notification and reporting requirements given in any District Rule, Regulation, the Manual of Procedures or standard condition I.F, the owner/operator shall submit written notification (facsimile is acceptable) to the Enforcement Division within 96 hours of the violation of any permit condition. (Regulation 2-1-403)
49. The owner/operator shall ensure that the stack height of emission points P-1, P-2, and P-3 are at least 144 feet above grade level at the stack base. (PSD, Regulation 2, Rule 5)
50. The owner/operator of DEC 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 be subject to BAAQMD review and approval. (Regulation 1-501)
51. Within 180 days of the issuance of the Authority to Construct for the DEC, the Owner/Operator shall contact the BAAQMD Technical Services Division regarding requirements for the continuous monitors, sampling ports, platforms, and source tests required by parts 42, 43, and 45. All source testing and monitoring shall be conducted in accordance with the BAAQMD Manual of Procedures. (Regulation 1-501)
52. Deleted
53. Deleted
54. Deleted
55. Pursuant to 40 CFR Part 72.30(b)(2)(ii) of the Federal Acid Rain Program, the owner/operator of the Delta Energy Center shall submit an application for a Title IV operating permit at least 24 months prior to the initial operation of any of the gas turbines (S-1, S-3, & S-5) or HRSGs (S-2, S-4, & S-6). (Regulation 2, Rule 7)
56. The Delta Energy Center shall comply with the continuous emission monitoring requirements of 40 CFR Part 75. (Regulation 2, Rule 7)



## VI. Permit Conditions

57. The owner/operator shall take monthly samples of the natural gas combusted at the DEC. The samples shall be analyzed for sulfur content using District-approved laboratory methods. The test results shall be retained on site for a minimum of five years from the test date. (cumulative increase)
58. The owner/operator shall properly install and maintain the cooling towers to minimize drift losses. The owner/operator shall equip the cooling towers with high-efficiency mist eliminators with a maximum guaranteed drift rate of 0.0005%. The maximum total dissolved solids (TDS) measured at the base of the cooling towers or at the point of return to the wastewater facility shall not be higher than 5,233 ppmw (mg/l). The owner/operator shall sample the water at least once per day. (PSD, BACT, cumulative increase)
59. The owner/operator shall perform a visual inspection of the cooling tower drift eliminators at least once per calendar year, and repair or replace any drift eliminator components which are broken or missing. Prior to initial operation of the Delta Energy Center, the owner/operator shall have the cooling tower vendor's field representative inspect the cooling tower drift eliminators and certify that the installation was performed in a satisfactory manner. The CPM may, in years 5 and 15 of cooling tower operation, require the owner/operator to perform a source test to determine the PM<sub>10</sub> emission rate from the cooling tower to verify continued compliance with the vendor-guaranteed drift rate specified in part #58. (PSD, BACT, cumulative increase)
60. The Owner/Operator shall submit a Preplanned Abatement Strategy as described in BAAQMD Regulation 4, Air Pollution Episode Plan, within 120 days after issuance of the Title V permit. After the plan has been approved by the APCO, the owner/operator shall keep records of implementation on an event basis. (Basis: BAAQMD Regulation 4)
61. Deleted
62. To demonstrate compliance with condition 24, the owner/operator shall record the start time, end time, and duration of each steam turbine cold start-up and each gas turbine combustor tuning period. On an annual basis, the owner/operator shall submit a report to the District and the CEC CPM describing the total number of hours during which each turbine was operated in support of a steam turbine cold start-up or combustor tuning mode during the year. (cumulative increase)

## VI. Permit Conditions

### Condition No. 21609 for: S-11 Emergency Generator

COND# 21609 -----

Delta Energy Center  
Plant 12095

Conditions for S-11

- 1) Hours of Operation: The owner/operator shall operate the emergency standby engine(s) only to mitigate emergency conditions or for reliability-related activities. Operation of the engine for the purpose of mitigating emergency conditions is unlimited. Operation of the engine for the purpose of reliability-related activities is limited to 100 hours per calendar year. [Basis: Regulation 9-8-330]

"Emergency Conditions" are defined as any of the following:

- a. Loss of regular natural gas supply
  - b. Failure of regular electric power supply
  - c. Flood mitigation
  - d. Sewage overflow mitigation
  - e. Fire
  - f. Failure of a primary motor, but only for such time as needed to repair or replace the primary motor
- [Basis: Regulation 9-8-231]

"Reliability-related activities" are defined as any of the following:

- a. Operation of an emergency standby engine to test its ability to perform for an emergency use, or
  - b. Operation of an emergency standby engine during maintenance of a primary motor.
- [Basis: Regulation 9-8-232]

- 2) The owner/operator shall equip the emergency standby engine with either:

- a. a non-resettable totalizing meter that measures the hours of operation for the engine; or

## VI. Permit Conditions

- b. a non-resettable fuel usage meter, the maximum hourly fuel rate shall be used to convert fuel usage to hours of operation.

[Basis: Regulation 9-8-530]

- 3) Records: The owner/operator shall maintain the following monthly records in a District-approved log for at least 2 years and shall make the log available for District inspection upon request:

- a. Hours of operation (total)
- b. Hours of operation (emergency)
- c. For each emergency, the nature of the emergency condition
- d. Fuel usage for engine(s) if a non-resettable fuel usage meter is utilized

[Basis: Regulations 9-8-530 and 1-441]

### **Condition #22851 for:**

S-10 Fire Pump Diesel Engine

COND# 22851 -----

1. Operating for reliability-related activities is limited to no more than 34 hours per year per engine which is the number of hours necessary to comply with the testing requirements of the National Fire Protection Association (NFPA) 25. This emergency fire pump is subject to the current National Fire Protection Association (NFPA) 25 - "Standard for the Inspection, Testing and Maintenance of Water-Based Fire Protection Systems."

[Basis: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations]

2. The owner or 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.

## VI. Permit Conditions

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

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 or 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

## VI. Permit Conditions

- 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 structure, playground, 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)]

**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), 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.

**Table VII – A  
 Applicable Limits and Compliance Monitoring Requirements  
 S-1, S-3, S-5, TURBINE #1, #2, #3  
 S-2, S-4, S-6, HEAT RECOVERY STEAM GENERATOR**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
NO <sub>x</sub>	BAAQMD 9-3-303	Y		125 ppm		C	CEM
	BAAQMD 9-9-301.2	N		0.15 lb/MW-hr or 5 ppmv	BAAQMD 9-9-501	C	CEM
NO <sub>x</sub>	SIP 9-9-301.3	Y		9 ppmv @ 15% O <sub>2</sub> , dry	SIP 9-9-501	C	CEM
	NSPS 40 CFR 60.44b(a) (4)	Y		0.2 lb/MM BTU, 30-day rolling average	NSPS 40 CFR 60.48b(b) and BAAQMD condition #17154,	C	CEM

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII – A**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-1, S-3, S-5, TURBINE #1, #2, #3**  
**S-2, S-4, S-6, HEAT RECOVERY STEAM GENERATOR**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
	NSPS, 40 CFR 60.332 (a)(1)	Y		75 ppmv, @ 15% O <sub>2</sub> , dry	NSPS 40 CFR 60.334(c) and BAAQMD Condition 17154, Part 39b	C	CEM
		Y		None	40 CFR 75.10	C	CEM
	BAAQMD condition #17154, part 22a	Y		19.2 lb/hr, for each turbine and HRSG combined, except during turbine startup, shutdown, steam turbine cold start-up, or combustor tuning period	BAAQMD condition #17154, part 39b	C	CEM
NO <sub>x</sub>	BAAQMD condition #17154, part 22a	Y		19.2 lb/hr, for each turbine and HRSG combined, except during turbine startup, shutdown, steam turbine cold start-up, or combustor tuning period	BAAQMD condition #17154, part 43	P/A	Source test at maximum load
	BAAQMD condition #17154, part 22a	Y		0.00904 lb/MM BTU, for each turbine and HRSG combined, except during turbine startup, shutdown, steam turbine cold start-up, or combustor tuning period	BAAQMD condition #17154, part 39b	C	CEM
	BAAQMD condition #17154, part 22a	Y		0.00904 lb/MM BTU, for each turbine and HRSG combined, except during turbine startup, shutdown, steam turbine cold start-up, or combustor tuning period	BAAQMD condition #17154, part 43	P/A	Source test at maximum load

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII – A**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-1, S-3, S-5, TURBINE #1, #2, #3**  
**S-2, S-4, S-6, HEAT RECOVERY STEAM GENERATOR**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
NO <sub>x</sub>	BAAQMD condition #17154, part 22b	Y		2.5 ppmv, @ 15% O <sub>2</sub> , dry, for each turbine and HRSG combined, 1-hr average except during turbine startup, shutdown, steam turbine cold start-up, or combustor tuning period	BAAQMD condition #17154, part 43	P/A	Source test at maximum load
	BAAQMD condition #17154, part 22b	Y		2.5 ppmv, @ 15% O <sub>2</sub> , dry, for each turbine and HRSG combined, 1-hr average except during turbine startup, shutdown, steam turbine cold start-up, or combustor tuning period	BAAQMD condition #17154, part 39b	C	CEM
NO <sub>x</sub>	BAAQMD condition #17154, part 23	Y		240 lb/turbine during start-up	BAAQMD condition #17154, part 39b	C	CEM
	BAAQMD condition #17154, part 23	Y		80 lb/turbine during shutdown	BAAQMD condition #17154, part 39b	C	CEM
	BAAQMD condition #17154, part 23	Y		300 lb/turbine during steam turbine cold start-up or combustor tuning period	BAAQMD condition #17154, part 39b	C	CEM
NO <sub>x</sub>	BAAQMD condition #17154, part 36a	Y		1990.8 lb/day for turbines and HRSGs combined	BAAQMD condition #17154, part 39b	C	CEM



## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII – A**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-1, S-3, S-5, TURBINE #1, #2, #3**  
**S-2, S-4, S-6, HEAT RECOVERY STEAM GENERATOR**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
NO <sub>x</sub>	BAAQMD condition #17154, part 37a	Y		240.2 ton/yr for turbines and HRSGs combined	BAAQMD condition #17154, part 39b	C	CEM
CO	BAAQMD condition #17154, part 22c	Y		46.75 lb/hr, for each turbine and HRSG combined, except during turbine startup, shutdown, steam turbine cold start-up, or combustor tuning period	BAAQMD condition #17154, part 43	P/A	Source test at maximum and minimum load
CO	BAAQMD condition #17154, part 22c	Y		46.75 lb/hr, for each turbine and HRSG combined, except during turbine startup, shutdown, steam turbine cold start-up, or combustor tuning period	BAAQMD condition #17154, part 39b	C	CEM
CO	BAAQMD condition #17154, part 22c	Y		0.022 lb/MM BTU, for each turbine and HRSG combined, except during turbine startup, shutdown, steam turbine cold start-up, or combustor tuning period	BAAQMD condition #17154, part 43	P/A	Source test at maximum and minimum load
CO	BAAQMD condition #17154, part 22c	Y		0.022 lb/MM BTU, for each turbine and HRSG combined, except during turbine startup, shutdown, steam turbine cold start-up, or combustor tuning period	BAAQMD condition #17154, part 39b	C	CEM

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII – A**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-1, S-3, S-5, TURBINE #1, #2, #3**  
**S-2, S-4, S-6, HEAT RECOVERY STEAM GENERATOR**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
CO	BAAQMD condition #17154, part 22d	Y		10 ppmv @ 15% O <sub>2</sub> , dry, for each turbine and HRSG combined, 3-hr average, except during turbine startup, shutdown, steam turbine cold start-up, or combustor tuning period	BAAQMD condition #17154, part 43	P/A	Source test at maximum and minimum load
	BAAQMD condition #17154, part 22d	Y		10 ppmv @ 15% O <sub>2</sub> , dry, for each turbine and HRSG combined, 3-hr average, except during turbine startup, shutdown, steam turbine cold start-up, or combustor tuning period	BAAQMD condition #17154, part 39b	C	CEM
CO	BAAQMD condition #17154, part 23	Y		2514 lb/turbine during start-up	BAAQMD condition #17154, part 39b	C	CEM
	BAAQMD condition #17154, part 23	Y		902 lb/turbine during shutdown	BAAQMD condition #17154, part 39b	C	CEM
CO	BAAQMD condition #17154, part 23	Y		9,750 lb/turbine during steam turbine cold start-up or combustor tuning period	BAAQMD condition #17154, part 39b	C	CEM
CO	BAAQMD condition #17154, part 36b	Y		12,756.4 lb/day for turbines and HRSGs, combined	BAAQMD condition #17154, part 39b	C	CEM

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII – A**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-1, S-3, S-5, TURBINE #1, #2, #3**  
**S-2, S-4, S-6, HEAT RECOVERY STEAM GENERATOR**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
CO	BAAQMD condition #17154, part 37b	Y		1,105.4 ton/yr for turbines and HRSGs, combined	BAAQMD condition #17154, part 39b	C	CEM
CO <sub>2</sub>		Y		None	40 CFR 75.10	C	fuel flow monitor and CO <sub>2</sub> calculation
SO <sub>2</sub>	BAAQMD 9-1-301	Y		GLC <sup>1</sup> of 0.5 ppm for 3 min or 0.25 ppm for 60 min or 0.05 ppm for 24 hours		N	
	BAAQMD 9-1-302	Y		300 ppm (dry)		N	
	NSPS 40 CFR 60.43a (b)(2)			0.2 lb/MM BTU, 24 hr average except during startup, shutdown		N	
SO <sub>2</sub>	NSPS 40 CFR 60.333	Y		0.015% (vol) @15% O <sub>2</sub> (dry) or total sulfur content of fuel less than or equal to 0.8% by weight (8,000 ppmw)	NSPS 40 CFR 60.334(h)(3)(i) and BAAQMD Condition 17154, Part 57	P/M	Fuel sulfur content testing
SO <sub>2</sub>		Y		None	40 CFR 75.11, 40 CFR 75, Appendix D, part 2.3		Fuel measurements, calculations

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII – A**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-1, S-3, S-5, TURBINE #1, #2, #3**  
**S-2, S-4, S-6, HEAT RECOVERY STEAM GENERATOR**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
	BAAQMD condition #17154, part 14	Y		Fuel sulfur content of 1.0 gr/100 scf	BAAQMD condition #17154, part 57	P/M	Fuel testing
	BAAQMD condition #17154, part 37e	Y		18.42 ton/yr for turbines and HRSGs, combined	BAAQMD condition #17154, part 40	P/D	Fuel sulfur content testing, natural gas usage records, calculations
Opacity	BAAQMD 6-1-301	N		> Ringelmann No. 1 for no more than 3 minutes in any hour		N	
Opacity	SIP 6-301	Y		≥ Ringelmann No. 1 for no more than 3 minutes in any hour		N	
FP	BAAQMD 6-1-310	N		0.15 grain/dscf		N	
FP	SIP 6-310	Y		0.15 grain/dscf		N	
	BAAQMD 6-1-310.3	N		0.15 grain/dscf @ 6% O <sub>2</sub>		N	
	SIP6-310.3	Y		0.15 grain/dscf @ 6% O <sub>2</sub>		N	
Opacity	BAAQMD 6-1-304	N		During tube cleaning, Ringelmann No. 2 for 3 min/hr and 6 min/billion btu/24 hours		N	
Opacity	SIP 6-304	Y		During tube cleaning, Ringelmann No. 2 for 3 min/hr and 6 min/billion btu/24 hours		N	

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII – A**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-1, S-3, S-5, TURBINE #1, #2, #3**  
**S-2, S-4, S-6, HEAT RECOVERY STEAM GENERATOR**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
PM <sub>10</sub>	BAAQMD condition #17154, part 22h	Y		9 lb/hr, for each turbine and HRSG combined	BAAQMD condition #17154, part 43	P/A	Source test at maximum load
PM <sub>10</sub>	BAAQMD condition #17154, part 22h	Y		0.00424 lb/MM BTU, for each turbine and HRSG combined	BAAQMD condition #17154, part 43	P/A	Source test at maximum load
PM <sub>10</sub>	BAAQMD condition #17154, part 36d	Y		648 lb/day for turbines and HRSGs, combined	BAAQMD condition #17154, part 40	P/D	Records, calculations
	BAAQMD condition #17154, part 37d	Y		118.26 ton/yr for turbines and HRSGs, combined	BAAQMD condition #17154, part 40	P/D	Records, calculations
POC	BAAQMD condition #17154, part 22f	Y		5.33 lb/hr (as CH <sub>4</sub> ) for each turbine, and HRSG combined except during turbine startup, shutdown, steam turbine cold start-up, or combustor tuning period	BAAQMD condition #17154, part 43	P/A	Source test at maximum load
POC	BAAQMD condition #17154, part 22f	Y		0.00251 lb/MM BTU (as CH <sub>4</sub> ) for each turbine, and HRSG combined except during turbine startup, shutdown, steam turbine cold start-up, or combustor tuning period	BAAQMD condition #17154, part 43	P/A	Source test at maximum load
	BAAQMD condition #17154, part 23	Y		48 lb/turbine during start-up	BAAQMD condition #17154, part 40	P/D	Records, calculations

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII – A**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-1, S-3, S-5, TURBINE #1, #2, #3**  
**S-2, S-4, S-6, HEAT RECOVERY STEAM GENERATOR**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
	BAAQMD condition #17154, part 23	Y		16 lb/turbine during shutdown	BAAQMD condition #17154, part 40	P/D	Records, calculations
POC	BAAQMD condition #17154, part 23	Y		96 lb/turbine during steam turbine cold start-up or combustor tuning period	BAAQMD condition #17154, part 40	P/D	Records, calculations
POC	BAAQMD condition #17154, part 36c	Y		478.2 lb/day (as CH4) for turbines and HRSGs, combined	BAAQMD condition #17154, part 40	P/D	Records, calculations
POC	BAAQMD condition #17154, part 37c	Y		64.68 ton/yr for turbines and HRSGs, combined	BAAQMD condition #17154, part 40	P/D	Records, calculations
NH3	BAAQMD condition #17154, Part 22e	N		10 ppmv, @ 15% O <sub>2</sub> , dry, averaged over 3 hrs for turbine and HRSG combined except during turbine startup, shutdown, steam turbine cold start-up, or combustor tuning period	BAAQMD condition #17154, part 39c	C	Ammonia injection rate monitor
Formaldehyde	BAAQMD condition #17154, part 38a	N		5691 lb/yr for turbines and HRSGs, combined	BAAQMD condition #17154, part 41	P/D	Records, calculations
Formaldehyde	BAAQMD condition #17154, part 38a	N		5691 lb/yr for turbines and HRSGs, combined	BAAQMD condition #17154, part 45	P/every two years on P-1, P-2, or P-3	Source test

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII – A**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-1, S-3, S-5, TURBINE #1, #2, #3**  
**S-2, S-4, S-6, HEAT RECOVERY STEAM GENERATOR**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Benzene	BAAQMD condition #17154, part 38b	N		704 lb/yr for turbines and HRSGs, combined	BAAQMD condition #17154, part 41	P/D	Records, calculations
	BAAQMD condition #17154, part 38b	N		704 lb/yr for turbines and HRSGs, combined	BAAQMD condition #17154, part 45	P/every two years on P-1, P-2, or P-3	Source test
Specified PAH's	BAAQMD condition #17154, Part 38c	N		120 lb/yr for turbines and HRSGs, combined	BAAQMD condition #17154, part 41	P/D	Records, calculations
Specified PAH's	BAAQMD condition #17154, Part 38c	N		120 lb/yr for turbines and HRSGs, combined	BAAQMD condition #17154, part 45	P/every two years on P-1, P-2, or P-3	Source test
Heat input limit		Y		None	40 CFR 75.10	C	Fuel meter, firing monitor, calculations
Heat input limit	BAAQMD condition #17154, part 15	Y		2,125 MM BTU/hr (HHV), 3-hr average for each Turbine and HRSG, total	BAAQMD condition #17154, part 39a	C	Fuel meter, firing monitor, calculations
	BAAQMD condition #17154, part 16	Y		50,024 MM BTU/calendar day (HHV), for each Turbine and HRSG, total	BAAQMD condition #17154, part 39a	C	fuel meter, firing monitor, calculations
Heat input limit	BAAQMD condition #17154, part 17	Y		53,188,532 MM BTU/yr (HHV) for S-1, S-3, S-5 Turbines and S-2, S-4, S-6 HRSGs combined	BAAQMD condition #17154, part 39a	C	fuel meter, firing monitor, calculations

**VII. Applicable Limits and Compliance Monitoring Requirements**

**Table VII – A**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-1, S-3, S-5, TURBINE #1, #2, #3**  
**S-2, S-4, S-6, HEAT RECOVERY STEAM GENERATOR**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Steam turbine cold start-up or combustor tuning	BAAQMD condition #17154, part 24	Y		30 hours per year per turbine	BAAQMD condition #17154, part 62	P/H	records



## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII - B**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-9, COOLING TOWER**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Opacity	BAAQMD 6-1-301	N		≥ Ringelmann No. 1 for no more than 3 minutes in any hour		N	
Opacity	SIP 6-301	Y		> Ringelmann No. 1 for no more than 3 minutes in any hour		N	
FP	BAAQMD 6-1-310	N		0.15 grain/dscf		N	
FP	SIP 6-310	Y		0.15 grain/dscf		N	
Drift Rate	BAAQMD Condition #17154, part 58	Y		0.0005%	BAAQMD Condition #17154, part 59	P	Initial Source Test
Total Dissolved Solids	BAAQMD Condition #17154, part 58	Y		5233 ppmw (mg/l)	BAAQMD Condition #17154, part 58	P/D	Sampling and testing of cooling tower water

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII - C**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-10, FIRE PUMP DIESEL ENGINE**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Opacity	BAAQMD 6-1-303.1	N		> Ringelmann No. 2 for no more than 3 minutes in any hour		N	
Opacity	SIP 6-303.1	Y		> Ringelmann No. 2 for no more than 3 minutes in any hour		N	
FP	BAAQMD 6-1-310	N		0.15 grain/dscf		N	
FP	SIP 6-310	Y		0.15 grain/dscf		N	
SO <sub>2</sub>	BAAQMD 9-1-301	Y		GLC <sup>1</sup> of 0.5 ppm for 3 min or 0.25 ppm for 60 min or 0.05 ppm for 24 hours		N	
	BAAQMD 9-1-304	Y		Sulfur Content ≤ 0.5% by weight		N	
Reliability Related Hours	BAAQMD 9-8-330	N	1/1/12	100 hours until 1/1/12 50 hours after 1/1/12	9-8-502 9-8-530	P/E	Totalizing meter record keeping
Reliability-related activities	BAAQMD Condition #22851, part 1	N		34 hours per calendar year	BAAQMD Condition #22851, part 3, 4	P/E	Totalizing meter, record-keeping

## VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII - D**  
**Applicable Limits and Compliance Monitoring Requirements**  
**S-11 NATURAL GAS FIRED STATIONARY STANDBY GENERATOR SET**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Opacity	BAAQMD 6-1-303.1	N		≥ Ringelmann No. 2 for no more than 3 minutes in any hour		N	
Opacity	SIP 6-303.1	Y		≥ Ringelmann No. 2 for no more than 3 minutes in any hour		N	
FP	BAAQMD 6-1-310	N		0.15 grain/dscf		N	
FP	SIP 6-310	Y		0.15 grain/dscf		N	
SO <sub>2</sub>	BAAQMD 9-1-301	Y		GLC <sup>1</sup> of 0.5 ppm for 3 min or 0.25 ppm for 60 min or 0.05 ppm for 24 hours		N	
SO <sub>2</sub>	BAAQMD 9-1-302	Y		300 ppm (dry)		N	
Reliability Related Hours	BAAQMD 9-8-330	N	1/1/12	100 hours until 1/1/12 50 hours after 1/1/12	9-8-502	P/E	Totalizing meter record keeping
Reliability-related activities	BAAQMD Condition #21609, part 1	Y		100 hours per calendar year	BAAQMD Condition #22231, part 2 and 3	P/E	Record-keeping

## 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 Emission Limits & Compliance Monitoring Requirements, of this permit.

**Table VIII  
 Test Methods**

<b>Applicable Requirement</b>	<b>Description of Requirement</b>	<b>Acceptable Test Methods</b>
BAAQMD 6-301	Ringelmann No. 1 Limitation	Manual of Procedures, Volume I, Evaluation of Visible Emissions
BAAQMD 6-304	Tube Cleaning	Manual of Procedures, Volume I, Evaluation of Visible Emissions
BAAQMD 6-310	Particulate Weight Limitation	Manual of Procedures, Volume IV, ST-15, Particulates Sampling
BAAQMD 9-1-302	General Emission Limitation	Manual of Procedures, Volume IV, ST-19A, Sulfur Dioxide, Continuous Sampling, or ST-19B, Total Sulfur Oxides Integrated Sample
BAAQMD 9-3-303	New or Modified Heat Transfer Operation Limits	Manual of Procedures, Volume IV, ST-13A, Oxides of Nitrogen, Continuous Sampling
BAAQMD 9-7-301.1	Performance Standard, NO <sub>x</sub> , Gaseous Fuel	Manual of Procedures, Volume IV, ST-13A, Oxides of Nitrogen, Continuous Sampling and ST-14, Oxygen, Continuous Sampling
BAAQMD 9-7-301.2	Performance Standard, CO, Gaseous Fuel	Manual of Procedures, Volume IV, ST-6, Carbon Monoxide, Continuous Sampling and ST-14, Oxygen, Continuous Sampling
BAAQMD 9-9-301.3	Emission Limits- Turbines Rated ≥ 10 MW w/SCR	Manual of Procedures, Volume IV, ST-13A, Oxides of Nitrogen, Continuous Sampling and ST-14, Oxygen, Continuous Sampling
<b>NSPS 40 CFR 60</b>		
Subpart Db	Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units	
60.44b (a)(1)(i)	NO <sub>x</sub> Limit	EPA Method 19, Determination of Sulfur Dioxide Removal Efficiency and Particulate Matter, Sulfur Dioxide, and Nitrogen Oxides Emission Rates

## VIII. Test Methods

**Table VIII  
 Test Methods**

<b>Applicable Requirement</b>	<b>Description of Requirement</b>	<b>Acceptable Test Methods</b>
Subpart GG	Standards of Performance for Stationary Gas Turbines	
60.332 (a)(1)	Performance Standard, NO <sub>x</sub>	EPA Method 20, Determination of Nitrogen Oxides, Sulfur Dioxide, and Diluent Emissions from Stationary Gas Turbines
60.333 (a)	SO <sub>2</sub> Volumetric Emission Limit	EPA Method 20, Determination of Nitrogen Oxides, Sulfur Dioxide, and Diluent Emissions from Stationary Gas Turbines
60.333 (b)	Fuel Sulfur Limit (gaseous fuel)	ASTM D 1072-80, Standard Method for Total Sulfur in Fuel Gases ASTM D 3031-81, Standard Test Method for Total Sulfur in Natural Gas by Hydrogenation
<b>BAAQMD Condition #17154</b>		
Part 22b	NO <sub>x</sub> Limit	Test Procedure ARB 100, Procedures for Continuous Gaseous Emission Stack Sampling
Part 22e	NH <sub>3</sub> Limit	BAAQMD Test Procedure ST-1B, Ammonia, Integrated Sampling
Part 22d	CO Limit	Test Procedure ARB 100, Procedures for Continuous Gaseous Emission Stack Sampling
Part 22f	POC Limit	Test Procedure ARB 100, Procedures for Continuous Gaseous Emission Stack Sampling
Part 22h	PM <sub>10</sub> Limit	Test Procedure ARB 5, Determination of Particulate Matter Emissions from Stationary Sources
Part 18.6	SO <sub>x</sub> Limit	Test Procedure, MOP Vol.4, ST-19A, Sulfur Dioxide, Continuous Sampling, or ST-19B, Total Sulfur Oxides Integrated Sample

## **IX. TITLE IV ACID RAIN PERMIT**

**Effective July 12, 2011 through July 11, 2016**

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**ISSUED TO:**

Delta Energy Center, LLC  
P. O. Box 551  
Pittsburg, CA 94565

**PLANT SITE LOCATION:**

1200 Arcy Lane  
Pittsburg, CA 94565

**ISSUED BY:**

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Jim Karas  
Director of Engineering Division

July 15, 2013  
Date

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**Type of Facility:** Power Plant  
**Primary SIC:** 4911  
**Product:** Electricity

**Responsible Official:**

**Name:** Dale Donmoyer  
**Title:** General Manager  
**Phone:** (925) 252-2096

**Facility Contact:**

**Name:** Jeff Sorenson  
**Title:** EHS Manager  
**Phone:** (925) 252-2089

**Alternate Responsible Official:**

**Name:** Reginald Littlejohn  
**Title:** Operations Manager  
**Phone:** (925) 252-2093

## 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 NO<sub>x</sub> 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 Rule Regulation 2, Rule 7.**

#### 2) SO<sub>2</sub> ALLOWANCE ALLOCATIONS

	Year	2011	2012	2013	2014	2015
	SO <sub>2</sub> allowances under Table 2 of 40 CFR Part 73	None	None	None	None	None
<b>S-1, Turbine</b>	<b>NO<sub>x</sub> Limit</b>	<b>This unit is not subject to the NO<sub>x</sub> requirements from 40 CFR Part 76 as this unit is not capable of firing on coal.</b>				

	Year	2011	2012	2013	2014	2015
	SO <sub>2</sub> allowances under Table 2 of 40 CFR Part 73	None	None	None	None	None
<b>S-2, Heat Recovery Steam Generator</b>	<b>NO<sub>x</sub> Limit</b>	<b>This unit is not subject to the NO<sub>x</sub> requirements from 40 CFR Part 76 as this unit is not capable of firing on coal.</b>				

**IX. Title IV Acid Rain Permit**

	Year	2011	2012	2013	2014	2015
	<b>SO<sub>2</sub> allowances under Table 2 of 40 CFR Part 73</b>	<b>None</b>	<b>None</b>	<b>None</b>	<b>None</b>	<b>None</b>
<b>S-3, Turbine</b>	<b>NO<sub>x</sub> Limit</b>	<b>This unit is not subject to the NO<sub>x</sub> requirements from 40 CFR Part 76 as this unit is not capable of firing on coal.</b>				

	Year	2011	2012	2013	2014	2015
	<b>SO<sub>2</sub> allowances under Table 2 of 40 CFR Part 73</b>	<b>None</b>	<b>None</b>	<b>None</b>	<b>None</b>	<b>None</b>
<b>S-4, Heat Recovery Steam Generator</b>	<b>NO<sub>x</sub> Limit</b>	<b>This unit is not subject to the NO<sub>x</sub> requirements from 40 CFR Part 76 as this unit is not capable of firing on coal.</b>				

	Year	2011	2012	2013	2014	2015
	<b>SO<sub>2</sub> allowances under Table 2 of 40 CFR Part 73</b>	<b>None</b>	<b>None</b>	<b>None</b>	<b>None</b>	<b>None</b>
<b>S-5, Turbine</b>	<b>NO<sub>x</sub> Limit</b>	<b>This unit is not subject to the NO<sub>x</sub> requirements from 40 CFR Part 76 as this unit is not capable of firing on coal.</b>				

	Year	2011	2012	2013	2014	2015
	<b>SO<sub>2</sub> allowances under Table 2 of 40 CFR Part 73</b>	<b>None</b>	<b>None</b>	<b>None</b>	<b>None</b>	<b>None</b>
<b>S-6, Heat Recovery Steam Generator</b>	<b>NO<sub>x</sub> Limit</b>	<b>This unit is not subject to the NO<sub>x</sub> requirements from 40 CFR Part 76 as this unit is not capable of firing on coal.</b>				



## **IX. Title IV Acid Rain Permit**

3) COMMENTS, NOTES AND JUSTIFICATIONS

**None**

4) PERMIT APPLICATION

**Attached**

## **X. PERMIT SHIELD**

### **A. Non-applicable Requirements**

None

### **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 subsumed requirements.

## XI. REVISION HISTORY

Initial Title V Permit Issuance (Application #2807):	April 10, 2003
Significant Revision (Application #7068): Purpose: to increase the time allowed for a cold startup of a steam turbine from 180 minutes per event to 360 minutes per event and to allow the turbines to exceed the general NO <sub>x</sub> and CO limits during infrequent tune-ups.	November 12, 2003
Significant Revision (Application #8341): Purpose: to increase the allowable fuel gas total sulfur content limit from 0.25 gr/100 scf to 1.0 gr/100 scf based upon actual facility operating experience, to delete the hourly and daily SO <sub>2</sub> limits, while continuing the frequency of monitoring for the annual SO <sub>2</sub> limits and to determine allowances. The BACT determination for SO <sub>2</sub> has been revised accordingly.	September 29, 2004
Permit Renewal/Significant Revision (Application #16773): Purpose: update Title V permit to agree with District Permit.	July 12, 2011
<ul style="list-style-type: none"><li>• Added Standard Condition Text for I.B.1 and I.B.12.</li><li>• Added S-11 Natural Gas Fired Emergency Generator to Title V Permit (See Application #9700).</li><li>• Modified description of S-1 after installation of modified vanes and changes to clearances between gas turbine sections. S-1 model changed from 501FD2 to 501FD3 (See Application #17657, Received 3/27/08).</li><li>• Updated regulatory requirements in Table III applicable requirements.</li><li>• Combined Table IV-B through F with Table IV-A for the gas turbines and heat recovery steam generators.</li><li>• Combined Table VII-B through F with Table VII-A for the gas turbines and heat recovery steam generators.</li><li>• Updated regulatory requirements in Table IV and VII for the gas turbines and HRSGs.</li><li>• Change Permit Condition for S-10 Diesel Fire Pump from Condition No. 17999 to Condition No. 22851.</li><li>• Delete Part 61 in Condition No. 17154 due to conflict with Part 57.</li><li>• Changed references to Toxics Risk Management Plan in Condition No. 17154 to Regulation 2, Rule 5.</li></ul>	
Administrative Amendment (Application #25537)	July 15, 2013
<ul style="list-style-type: none"><li>• Change Responsible Official</li><li>• Change Facility Contact Job Title</li><li>• Add Alternate Responsible Official</li></ul>	

## **XII. GLOSSARY**

### **ACT**

Federal Clean Air Act

### **BAAQMD**

Bay Area Air Quality Management District

### **BACT**

Best Available Control Technology

### **CAA**

The federal Clean Air Act

### **CAAQS**

California Ambient Air Quality Standards

### **CEQA**

California Environmental Quality Act

### **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

### **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

### **EPA**

The federal Environmental Protection Agency.

### **Excluded**

Not subject to any District regulations.

## **XII. Glossary**

### **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), 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.

### **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 both 40 CFR Part 63, and District Regulation 2, Rule 5.

### **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 Federal Clean Air Act and implemented by District Regulation 2, Rule 6.

### **MOP**

The District's Manual of Procedures.

### **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

### **NO<sub>x</sub>**

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 Federal Clean Air Act, and implemented by 40 CFR Part 60 and District Regulation 10.

## **XII. Glossary**

### **NSR**

New Source Review. A federal program for pre-construction review and permitting of new and modified sources of pollutants for which criteria have been established in accordance with Section 108 of the Federal Clean Air Act. Mandated by Title I of the Federal Clean Air Act and implemented by 40 CFR Parts 51 and 52 and District Regulation 2, Rule 2. (Note: There are additional NSR requirements mandated by the California Clean Air Act.)

### **Offset Requirement**

A New Source Review requirement to provide federally enforceable emission offsets for the emissions from a new or modified source. Applies to emissions of POC, NO<sub>x</sub>, PM<sub>10</sub>, and SO<sub>2</sub>.

### **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**

Particulate Matter

### **PM<sub>10</sub>**

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 those 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.

### **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

### **Title V**

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

### **TSP**

Total Suspended Particulate

## XII. Glossary

### VOC

#### Volatile Organic Compounds

#### Units of Measure:

bhp	=	brake-horsepower
btu	=	British Thermal Unit
g	=	grams
gal	=	gallon
hp	=	horsepower
hr	=	hour
lb	=	pound
in	=	inches
max	=	maximum
m <sup>2</sup>	=	square meter
min	=	minute
MM	=	million
ppmv	=	parts per million, by volume
ppmw	=	parts per million, by weight
psia	=	pounds per square inch, absolute
psig	=	pounds per square inch, gauge
scfm	=	standard cubic feet per minute
yr	=	year

**XIII. TITLE IV (ACID RAIN) APPLICATION**





United States  
 Environmental Protection Agency  
 Acid Rain Program

OMB No. 2060-0258

# Acid Rain Permit Application

For more information, see instructions and refer to 40 CFR 72.30 and 72.31

This submission is:  New  Revised

**STEP 1**

Identify the source by plant name, State, and ORIS code.

Delta Energy Center, LLC	CA	55333
Plant Name	State	ORIS Code

**STEP 2**

Enter the unit ID# for every affected unit at the affected source in column "a." For new units, enter the requested information in columns "c" and "d."

a	b	c	d
Unit ID#	Unit Will Hold Allowances in Accordance with 40 CFR 72.9(c)(1)	New Units Commence Operation Date	New Units Monitor Certification Deadline
1	Yes	N/A	N/A
2	Yes	N/A	N/A
3	Yes	N/A	N/A
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		

Delta Energy Center, LLC Plant Name (from Step 1)
--

**STEP 3**  
**Read the**  
**standard**  
**requirements**

**Permit Requirements**

- (1) The designated representative of each affected source and each affected unit at the source shall:
  - (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 unit 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 unit's compliance subaccount (after deductions under 40 CFR 73.34(c)), or in the compliance subaccount of another affected unit at the same source to the extent provided in 40 CFR 73.35(b)(3), not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; 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).
- (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.

Delta Energy Center, LLC  
Plant Name (from Step 1)

Acid Rain - Page 3

STEP 3,  
Cont'd.

**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 unit 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 unit 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;
  - (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.

Delta Energy Center, LLC Plant Name (from Step 1)
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Step 3,  
Cont'd.

**Liability, Cont'd.**

(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. Except as provided under 40 CFR 72.44 (Phase II repowering extension plans) and 40 CFR 76.11 (NO<sub>x</sub> averaging plans), and except with regard to the requirements applicable to units with a common stack under 40 CFR part 75 (including 40 CFR 75.16, 75.17, and 75.18), the owners and operators and the designated representative of one affected unit shall not be liable for any violation by any other affected unit of which they are not owners or operators or the designated representative and that is located at a source of which they are not owners or operators or the designated representative.

(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 to applicable National Ambient Air Quality Standards or State Implementation Plans;

(2) Limiting the number of allowances a unit can hold; *provided*, that the number of allowances held by the unit 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 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,

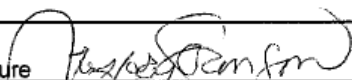
(5) Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

**STEP 4**

**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.

Jeff Sorenson	
Name	
Signature	
Date	09/17/2007