



**TITLE V FEDERAL OPERATING PERMIT,  
TITLE IV ACID RAIN PROGRAM PERMIT  
AND  
SMAQMD RULE 201 PERMIT TO OPERATE**

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**TITLE V PERMIT NO:  
2003-07-02**

**PERMIT  
ISSUED:**

February 01, 2005

**PERMIT  
LAST AMENDED:**

October 29, 2009

**PERMIT  
EXPIRES:**

February 01, 2010

**ISSUED TO:**

Central Valley Financing Authority  
Carson Cogeneration Project  
PO Box 15830  
Sacramento, CA 95852-1830

**PLANT SITE LOCATION:**

Central Valley Financing Authority  
Carson Cogeneration Project  
8580 Laguna Station Road  
Elk Grove, CA

**RESPONSIBLE OFFICIAL:**

James Shetler  
Authority Representative  
(916) 732-6757

**CONTACT PERSON:**

Jeff White  
Plant Manager  
(916) 394-2930

**NATURE OF BUSINESS:**

Municipal Electricity Generation  
Process Steam Generation

**STANDARD INDUSTRIAL  
CLASSIFICATION (SIC):**

4931

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Larry Greene  
SMAQMD Air Pollution Control Officer

by: \_\_\_\_\_  
Bruce Nixon, P.E.  
Air Quality Engineer

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## I. PERMIT SUMMARY

This permit shall serve as a Permit to Operate pursuant to SMAQMD Rule 201 (General Permit Requirements) and SMAQMD Rule 207 (Title V - Federal Operating Permit Program). Requirements identified in the permit as non-federally enforceable are not enforceable by U.S. EPA or the public. However, they are enforceable by the SMAQMD.

Your application for this air quality Permit to Operate was evaluated for compliance with SMAQMD, State of California and federal air quality rules and regulations. The following listed rules are those that were found to be applicable at the time of permit review, based on the information submitted with the Title V permit application.

Citation	Description	Rule Adoption Date	Federally Enforceable ?
SMAQMD Rule 101	General Provisions and Definitions	09-03-1998	Yes
SMAQMD Rule 102	Circumvention	05-15-1972	Yes
SMAQMD Rule 105	Emission Statements	04-20-1993	Yes
SMAQMD Rule 201	General Permit Requirements (SIP approved)	11-20-1984	Yes
SMAQMD Rule 201	General Permit Requirements (not SIP approved)	08-24-2006	No
SMAQMD Rule 202	New Source Review (SIP approved)	11-20-1984	Yes
SMAQMD Rule 202	New Source Review (not SIP approved)	02-24-2005	No
SMAQMD Rule 207	Title V - Federal Operating Permit Program (not SIP approved but rule is applicable as part of U.S. EPA approval of the SMAQMD Title V program)	04-26-2001	Yes
SMAQMD Rule 301	Permit Fees - Stationary Source (not SIP approved but Title V fees in the rule are applicable as part of U.S. EPA approval of the SMAQMD Title V program)	07-02-2007	Yes (Title V provisions only)
SMAQMD Rule 306	Air Toxic Fees (not SIP approved)	03-27-2003	No
SMAQMD Rule 307	Clean Air Act Fees	09-26-2002	Yes

**I. PERMIT SUMMARY (continued)**

<b>Citation</b>	<b>Description</b>	<b>Rule Adoption Date</b>	<b>Federally Enforceable ?</b>
SMAQMD Rule 401	Ringelmann Chart	04-05-1983	Yes
SMAQMD Rule 402	Nuisance (not SIP approved)	08-03-1977	No
SMAQMD Rule 403	Fugitive Dust	11-29-1983	Yes
SMAQMD Rule 404	Particulate Matter	11-20-1984	Yes
SMAQMD Rule 406	Specific Contaminants (see permit shield for specified equipment)	11-29-1983	Yes
SMAQMD Rule 412	Stationary Internal Combustion Engines Located at Major Stationary Sources of NOx (see permit shield for specified equipment)	06/01/1995	Yes
SMAQMD Rule 413	Stationary Gas Turbines (see permit shield for specified equipment)	03-24-2005	Yes
SMAQMD Rule 420	Sulfur Content of Fuels (see permit shield for specified equipment)	11-29-1983	Yes
SMAQMD Rule 442	Architectural Coatings (SIP approved)	09-05-1996	Yes
SMAQMD Rule 442	Architectural Coatings (not SIP approved)	05-24-2001	No
SMAQMD Rule 466	Solvent Cleaning (not SIP approved)	09-25-2008	No
SMAQMD Rule 602	Breakdown Conditions: Emergency Variance (not SIP approved)	12-06-1978	No
SMAQMD Rule 801	New Source Performance Standards (not SIP approved)	03-27-2008	No
SMAQMD Rule 904	Airborne Toxic Control Measures (not SIP approved)	03-27-2008	No
CARB Air Toxic Control Measure	State of California Air Toxic Control Measure for Chromate Treated Cooling Towers [CCR 93103] (not SIP approved)	03-09-1989 (A)	No

**I. PERMIT SUMMARY (continued)**

<b>Citation</b>	<b>Description</b>	<b>Rule Adoption Date</b>	<b>Federally Enforceable ?</b>
U.S. EPA New Source Performance Standards (NSPS)	Standards Performance for Small Industrial - Commercial - Institutional Steam Generating Units 40 CFR 60 Subpart Dc (begin at 60.40c) (see permit shield for specified equipment)	01-28-2009 (B)	Yes (not applicable to duct burner after upgrade)
U.S. EPA New Source Performance Standards (NSPS)	Standards of Performance for Stationary Gas Turbines [40 CFR 60 Subpart GG (begin at 60.330)] (see permit shield for specified equipment)	02-24-2006 (B)	Yes (not applicable to combined cycle gas turbine after upgrade)
U.S. EPA New Source Performance Standards (NSPS)	Standards of Performance for Stationary Combustion Turbines [40 CFR 60 Subpart KKKK (begin at 60.4300)] (see permit shield for specified equipment)	07-06-2006 (B)	Yes (applicable to combined cycle gas turbine after upgrade)
U.S. EPA Acid Rain Program	Acid Rain Program [40 CFR 72-78 (begin at 72.1)]	10-19-2007 (B)	Yes

- (A) California Air Resources Board adoption date
- (B) U.S. EPA promulgation/amendment date

Future changes in prohibitory rules may establish more stringent requirements that may, at the SMAQMD level, supersede the conditions listed here. For Title V purposes however, the federally enforceable requirements are those found in the Title V permit. Federally enforceable provisions of the Title V permit do not change until the Title V permit is revised.

## II. FACILITY DESCRIPTION

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### Permit Background

<u>Permit Action</u>	<u>Date</u>	<u>Permit No.</u>
Initial Title V permit issued:	09-01-1999	TV1996-07-01
1st Minor Modification:	09-24-2001	TV1996-07-02
1st Permit Renewal	02-01-2005	TV2003-07-01
1st Administrative Amendment	10-03-2006	TV2003-07-01A

### Current Permit Action

This permit action is the first significant modification of the renewed Title V Federal Operating Permit TV2007-03-01, issued February 01, 2005.

This modified permit is given the permit no. TV2003-07-02.

### Facility Description

The following facility description is for informational purposes only and does not contain any applicable federally enforceable requirements.

1. CVFA Carson is a cogeneration facility that became operational in 1995. The facility generates electricity and provides steam for use by others. There are two gas turbine generator units:
  - a. combined cycle gas turbine with a supplemental exhaust duct burner and heat recovery steam generator.
  - b. peaking gas turbine.
2. This facility provides:
  - a. electricity to the Sacramento Municipal Utility District (SMUD)
  - b. steam heat for digesters at the Sacramento Regional Wastewater Treatment Plant
  - c. steam to power refrigeration compressors at an ice production plant.
3. The cogeneration portion of the facility is based on a combined cycle gas turbine. The major components of the cogeneration portion of the facility include:
  - a. combined cycle gas turbine
  - b. exhaust duct burner
  - c. heat recovery steam generator

## II. FACILITY DESCRIPTION (continued)

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- d. steam turbine
- e. emission control systems
- f. exhaust stack
- g. water treatment systems
- h. fuel delivery systems
- i. electrical transmission and interconnection systems.

The combined cycle gas turbine combusts natural gas and/or digester gas (from the Sacramento Regional Wastewater Treatment Plant digesters). The combined cycle gas turbine operates at or near maximum load, producing up to 42 megawatts of electrical power (gross) prior to the combined cycle gas turbine upgrade [50 megawatts of electrical power (gross) after the combined cycle gas turbine upgrade], 24 hours per day, 365 days per year.

The associated duct burner, with a heat input rating of 99.9 MMBtu/hr and a nominal annual capacity factor of 50%, is also fired with natural gas and/or digester gas. The steam produced by the duct burner and HRSG combination drives a steam turbine, which produces up to 17.2 megawatts of electrical power (gross).

- 4. The peaking power portion of the facility is based on a simple cycle gas turbine. The major components of the peaking power portion of the facility include:
  - a. peaking gas turbine
  - b. emission control systems
  - c. exhaust stack
  - d. water treatment systems
  - e. fuel delivery systems
  - f. electrical transmission and interconnection systems.

The peaking gas turbine is used to respond to intermittent peak electrical demand that is greater than the electrical power produced by the combined cycle turbine. The peaking gas turbine combusts natural gas and/or digester gas. The peaking gas turbine operates an average of 10 hours per day and 4,500 hours per year. It can provide 42 megawatts of electrical power (gross).

## II. FACILITY DESCRIPTION (continued)

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5. An emergency use, diesel fueled, internal combustion (IC) engine is included in the CVFA Carson facility to provide emergency electrical power.

In case of an electric power interruption, the emergency use IC engine and electrical generator will start automatically to provide electrical power for startup of the peaking gas turbine. As soon as the peaking turbine is producing electric power, the emergency use IC engine and generator will shut down. Anticipated operation of the emergency use IC engine during such an incident is less than two hours.

Routine maintenance of the emergency use IC engine and electrical generator is required to ensure its reliable operation when needed. For that purpose, the IC engine is operated approximately 30 hours/year.

### III. FEDERALLY ENFORCEABLE REQUIREMENTS - GENERAL

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#### TITLE V PERMIT MODIFICATIONS AND RENEWAL

1. The owner or operator shall submit to the SMAQMD Air Pollution Control Officer a complete Title V permit application for renewal no later than February 01, 2009 (12 months prior to the expiration date of the Title V permit).  
**[Basis: SMAQMD Rule 207 Section 301.4]**
2. The owner or operator of a stationary source shall submit to the SMAQMD Air Pollution Control Officer a complete Title V permit application for a Minor Title V permit modification. The application shall be submitted after receiving any required preconstruction permit from the SMAQMD and before commencing operation associated with the Minor Title V permit modification.  
**[Basis: SMAQMD Rule 207 Section 301.6]**
3. The owner or operator of a stationary source shall submit to the SMAQMD Air Pollution Control Officer a complete Title V permit application for a Significant Title V permit modification. The application shall not be submitted prior to receiving any required preconstruction permit from the SMAQMD but no later than 12 months after commencing an operation associated with the Significant Title V permit modification. Where an existing federally enforceable Title V permit condition would prohibit such change in operation or the stationary source is not required to obtain a preconstruction permit, the owner or operator must obtain a Title V permit modification before commencing operation.  
**[Basis: SMAQMD Rule 207 Section 301.7]**
4. The applicant shall submit to the SMAQMD Air Pollution Control Officer timely updates to the Title V application as new requirements become applicable to the source.  
**[Basis: SMAQMD Rule 207 Section 302.1]**
5. The applicant shall submit to the SMAQMD Air Pollution Control Officer any additional information necessary to correct any incorrect information in the Title V permit application upon becoming aware of such incorrect submittal or if the applicant is notified by the SMAQMD Air Pollution Control Officer of such incorrect submittal.  
**[Basis: SMAQMD Rule 207 Section 302.2]**
6. The applicant shall submit to the SMAQMD Air Pollution Control Officer any additional information relating to the Title V application within 30 days if such information is requested in writing by the SMAQMD Air Pollution Control Officer.  
**[Basis: SMAQMD Rule 207 Section 302.3]**
7. Title V permit expiration terminates the stationary source's right to operate unless a timely and complete Title V permit application for renewal has been submitted and the stationary source complies with SMAQMD Rule 207 Sections 303.1(a), (b), (c) and (d), in which case the existing Title V permit will remain in effect until the Title V permit renewal has been issued or denied.  
**[Basis: SMAQMD Rule 207 Section 303.2]**

### **III. FEDERALLY ENFORCEABLE REQUIREMENTS - GENERAL (continued)**

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8. Any Title V application form, report or compliance certification submitted pursuant to a federally enforceable requirement in this permit shall contain certification by a Responsible Official. 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.

**[Basis: SMAQMD Rule 207 Section 304]**

9. This Title V permit shall have a 5-year fixed term from the date of issuance. The Title V permit shall have a new 5-year fixed term from the date of final action on reopening if the responsible official chooses to submit to the SMAQMD a complete Title V application for renewal upon reopening of the Title V permit pursuant to SMAQMD Rule 207 Sections 411 or 412, and the Title V permit is renewed according to the administrative procedures listed in SMAQMD Rule 207 Sections 401 through 408.

**[Basis: SMAQMD Rule 207 Section 306]**

#### **PERMIT COMPLIANCE**

10. The permittee shall comply with all conditions of the Title V permit.

**[Basis: SMAQMD Rule 207 Section 305.1(k)(1)]**

11. It shall not be a defense for a permittee, in an enforcement action, that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the Title V permit.

**[Basis: SMAQMD Rule 207 Section 305.1(k)(2)]**

12. This Title V permit may be modified, revoked, reopened and reissued or terminated for cause.

**[Basis: SMAQMD Rule 207 Section 305.1(k)(3)]**

13. The permittee shall furnish to the SMAQMD Air Pollution Control Officer, within a reasonable time, any information that the SMAQMD Air Pollution Control Officer may request in writing to determine whether cause exists for modifying, revoking and reissuing or terminating the permit pursuant to SMAQMD Rule 207 Section 411 or to determine compliance with this Title V permit.

Upon request, the permittee shall also furnish to the SMAQMD Air Pollution Control Officer copies of records required to be kept by conditions of this permit or, for information claimed to be confidential, the permittee may furnish such records directly to the U.S. EPA along with a claim of confidentiality.

**[Basis: SMAQMD Rule 207 Section 305.1(k)(4)]**

14. Noncompliance with any federally enforceable requirement in this Title V permit is grounds for Title V permit termination, revocation and reissuance, modification, enforcement action or denial of the Title V permit renewal application. Any violation of the Title V permit shall also be a violation of SMAQMD Rule 207.

**[Basis: SMAQMD Rule 207 Section 305.1(k)(5)]**

15. A pending Title V permit action (e.g. a proposed permit revision) or notification of anticipated noncompliance does not stay any permit condition.

**[Basis: SMAQMD Rule 207 Section 305.1(k)(6)]**

### **III. FEDERALLY ENFORCEABLE REQUIREMENTS - GENERAL (continued)**

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16. This Title V permit does not convey any property rights of any sort, or any exclusive privilege.  
**[Basis: SMAQMD Rule 207 Section 305.1(k)(7)]**
17. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the SMAQMD Air Pollution Control Officer or an authorized representative to perform all of the following:
- A. Enter upon the stationary source's premises where this source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit.
  - B. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Title V permit.
  - C. Inspect at reasonable times, the stationary source, equipment (including monitoring and air pollution control equipment), practices and operations regulated or required under this Title V permit.
  - D. As authorized by the Federal Clean Air Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the Title V permit conditions or applicable federal requirements.

**[Basis: SMAQMD Rule 207 Section 413.1]**

#### **REPORTS AND RECORDKEEPING**

##### **18. Monitoring Reports**

- A. The permittee shall submit to the SMAQMD Air Pollution Control Officer at least once every six months, unless required more frequently by an applicable requirement, reports of all required monitoring.
- B. The reporting periods for this permit shall be for the six month periods January 1 through June 30 and July 1 through December 31. The reports shall be submitted by July 30 and January 30 of each year respectively.
- C. All instances of deviations from Title V permit conditions must be clearly identified in such reports. All required reports must be certified by the responsible official and shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

**[Basis: SMAQMD Rule 207 Section 501.1]**

### **III. FEDERALLY ENFORCEABLE REQUIREMENTS - GENERAL (continued)**

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#### **19. Compliance Reports**

- A. The permittee shall submit to the SMAQMD Air Pollution Control Officer and U.S. EPA (Air-3, U.S. EPA, Region IX) on an annual basis, unless required more frequently by additional applicable federal requirements such as Section 114(a)(3) and 504(b) (42 U.S.C. Sections 7414(a)(3) and 7661c(b)) of the Federal Clean Air Act, a certification of compliance by the responsible official with all terms and conditions contained in the Title V permit, including emission limitations, standards and work practices.
- B. The reporting period for this permit shall be January 1 through December 31. The report shall be submitted by January 30 of each year.
- C. All required reports must be certified by the Responsible Official and shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.
- D. The compliance certification shall include the following:
  - i. The identification of each term or condition of the Title V permit that is the basis of the certification.
  - ii. The method(s) used for determining the compliance status of the source, currently and over the reporting period, and whether such method(s) provides continuous or intermittent data.
  - iii. The status of compliance with the terms and conditions of the Title V permit for the period covered by the certification, based on the method designated in Section D(ii) of this condition.
  - iv. Such other facts as the SMAQMD Air Pollution Control Officer may require to determine the compliance status of the source.
  - v. In accordance with SMAQMD Rule 207 Section 305, a method for monitoring the compliance of the stationary source with its emissions limitations, standards and work practices.

**[Basis: SMAQMD Rule 207 Section 413.4]**

- 20. The permittee shall report within 24 hours of detection any deviation from a federally enforceable Title V permit condition not attributable to an emergency. In order to fulfill the reporting requirement of this condition, the permittee shall notify the SMAQMD Air Pollution Control Officer by telephone followed by a written statement describing the nature of the deviation from the federally enforceable permit condition.

**[Basis: SMAQMD Rule 207 Section 501.3]**

### **III. FEDERALLY ENFORCEABLE REQUIREMENTS - GENERAL (continued)**

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21. All monitoring data and support information required by a federally enforceable applicable requirement must be kept by the stationary source for a period of 5 years from the date of the monitoring sample, measurement, report or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the federally enforceable applicable requirement in the Title V permit.

**[Basis: SMAQMD Rule 207 Section 502.3]**

#### **RINGELMANN CHART**

22. Except as otherwise provided in SMAQMD Rule 401 Section 100 a person shall not discharge into the atmosphere from any single source of emission whatsoever any air contaminant, other than uncombined water vapor, for a period or periods aggregating more than three minutes in any one hour which is:

A. As dark or darker in shade as that designated No. 1 on the Ringelmann Chart, as published by the United States Bureau of Mines, or

B. Of such opacity as to obscure a human observer's view, or a certified calibrated in-stack opacity monitoring system to a degree equal to or greater than No. 1 on the Ringelmann Chart.

**[Basis: SMAQMD Rule 401 Section 301]**

#### **PARTICULATE MATTER**

23. A person shall take every reasonable precaution not to cause or allow the emissions of fugitive dust from being airborne beyond the property line from which the emission originates, from any construction, handling or storage activity, or any wrecking, excavation, grading, clearing of land or solid waste disposal operation. Reasonable precautions shall include, but are not limited to:

A. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the construction of roadways or the clearing of land.

B. Application of asphalt, oil, water or suitable chemicals on dirt roads, materials stockpiles and other surfaces which can give rise to airborne dusts;

C. Other means approved by the SMAQMD Air Pollution Control Officer.

**[Basis: SMAQMD Rule 403 Section 301]**

24. Except as otherwise provided in Condition No. 26, a person shall not discharge into the atmosphere, from any source, particulate matter in excess of 0.23 grams per dry standard cubic meter (0.1 grains per dry standard cubic foot).

**[Basis: SMAQMD Rule 404 Section 301]**

### **III. FEDERALLY ENFORCEABLE REQUIREMENTS - GENERAL (continued)**

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25. A person shall not discharge into the atmosphere, from any single source of emission whatsoever, combustion contaminants (particulate matter from the burning of any kind of material containing carbon in a free or combined state) in any state or combination thereof exceeding in concentration at the point of discharge: 0.23 grams per dry standard cubic meter (0.1 grains per dry standard cubic foot) of gas calculated to 12% carbon dioxide (CO<sub>2</sub>) at standard conditions.

**[Basis: SMAQMD Rule 406 Section 302]**

#### **SULFUR COMPOUNDS**

26. A person shall not discharge into the atmosphere, from any single source of emission whatsoever, sulfur compounds in any state or combination thereof exceeding in concentration at the point of discharge: sulfur compounds, calculated as sulfur dioxide (SO<sub>2</sub>): 0.2% by volume.

**[Basis: SMAQMD Rule 406 Section 301]**

27. Except as otherwise provided in SMAQMD Rule 420 Section 110, a person shall not burn any gaseous fuel containing sulfur compounds in excess of 1.14 grams per cubic meter (50 grains per 100 cubic feet) of gaseous fuel, calculated as hydrogen sulfide at standard conditions, or any liquid fuel or solid fuel having a sulfur content in excess of 0.5% by weight.

**[Basis: SMAQMD Rule 420 Section 301]**

#### **ARCHITECTURAL COATING**

28. Any coating applied to stationary structures and their appurtenances, to mobile homes, to pavements, or to curbs, shall meet the requirements of SMAQMD Rule 442.

**[Basis: SMAQMD Rule 442 (09-05-1996 version)]**

29. All VOC-containing materials shall be stored in closed containers when not in use. In use includes, but is not limited to: being accessed, filled, emptied, maintained or repaired.

**[Basis: SMAQMD Rule 442 Section 304 (09-05-1996 version)]**

30. The permittee shall not use volatile organic compounds for the cleanup of spray equipment unless equipment for collection of the cleaning compounds and minimizing its evaporation to the atmosphere is used.

**[Basis: SMAQMD Rule 442 Section 305 (09-05-1996 version)]**

31. The permittee shall keep a record of all architectural coatings purchased that are not clearly labeled as complying with the VOC content limits contained in SMAQMD Rule 442. Compliance in these cases can be determined by maintaining records of the manufacturer's certifications or by Material Safety Data Sheets (MSDS) that demonstrate compliance with the VOC limits of SMAQMD Rule 442.

**[Basis: SMAQMD Rule 442 (09-05-1996 version) and SMAQMD Rule 207 Section 305]**

### **III. FEDERALLY ENFORCEABLE REQUIREMENTS - GENERAL (continued)**

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#### **COMPLIANCE**

32. Compliance with the conditions of the Title V permit shall be deemed compliance with all applicable requirements identified in the Title V permit.

**[Basis: SMAQMD Rule 207 Section 307]**

#### **EQUIPMENT BREAKDOWNS**

33. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology based emission limitations if the following conditions are met:

A. The affirmative defense of an emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

i. An emergency occurred and that the permittee can identify the cause(s) of the emergency.

ii. The permitted facility was at the time being properly operated.

iii. During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the Title V permit.

iv. The permittee submitted notice of the emergency to the SMAQMD Air Pollution Control Officer within two working days of the time when emissions limitations were exceeded due to the emergency. The notice must contain a description of the emergency, and corrective actions taken.

B. In any enforcement proceedings, the permittee seeking to establish the occurrence of an emergency has the burden of proof.

**[Basis: SMAQMD Rule 207 Section 414]**

34. The permittee shall notify the SMAQMD Air Pollution Control Officer of any occurrence which constitutes an emergency as defined in SMAQMD Rule 207 Section 212 as soon as reasonably possible, but no later than one hour after its detection. If the emergency occurs when the SMAQMD Air Pollution Control Officer cannot be contacted, the report of the emergency shall be made at the commencement of the next regular working day. The notification shall identify the time, specific location, equipment involved and, to the extent known, the cause(s) of the occurrence.

**[Basis: SMAQMD Rule 207 Section 501.2]**

### **III. FEDERALLY ENFORCEABLE REQUIREMENTS - GENERAL (continued)**

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#### **PAYMENT OF FEES**

35. The fee for: (1) the issuance of an initial Title V operating permit, (2) the renewal and/or inspection of a Title V operating permit, (3) the modification of a Title V operating permit or (4) an administrative Title V permit amendment shall be based on the actual hours spent by the SMAQMD staff in evaluating the application and processing the operating permit. The fee shall be assessed in accordance with the hourly rate established in Section 308.12 of SMAQMD Rule 301.

**[Basis: SMAQMD Rule 207 Section 305.7 and SMAQMD Rule 301 Section 313]**

36. After the provisions for granting permits as set forth in SMAQMD Rule 207 have been complied with, the permittee will be notified by mail of the fee due and payable and the date the fee is due. If the fee is not paid by the specified due date, the fee shall be increased by one half the amount and the applicant/permittee shall be notified by mail of the increased fee. If the increased fee is not paid within 30 days after notice, the application/permit will be canceled/revoked and the applicant/permittee will be notified by mail.

**[Basis: SMAQMD Rule 207 Section 305.7]**

#### **CLEAN AIR ACT FEES**

37. After the U.S. EPA determines that the SMAQMD has failed to demonstrate attainment of the one hour ozone ambient air quality standard by the attainment year, the permittee, operating any major stationary source of ROC or NO<sub>x</sub>, shall pay the Clean Air Act fees specified by the SMAQMD Air Pollution Control Officer in accordance with SMAQMD Rule No. 307.

**[Basis: SMAQMD Rule 307]**

#### **EMISSION STATEMENTS**

38. The permittee, when operating any stationary source that emits 25 tons or more per year of ROC or NO<sub>x</sub>, shall annually provide the SMAQMD Air Pollution Control Officer with a written emission statement showing actual emissions of ROC and NO<sub>x</sub> from that source.

**[Basis: SMAQMD Rule 105]**

#### **ACCIDENTAL RELEASES**

39. If subject to Section 112(r) of the Clean Air Act (1990) and 40 CFR Part 68, the permittee shall register and submit to the U.S. EPA, the required data related to the risk management plan (RMP) for reducing the probability of accidental releases of any regulated substances listed pursuant to Section 112(r)(3) of the Clean Air Act (1990) as amended in 40 CFR 68.130. The list of substances, threshold quantities and accident prevention regulations promulgated under 40 CFR Part 68 do not limit in any way the general duty provisions under Section 112(r)(1) of the Clean Air Act (1990).

**[Basis: 40 CFR Part 68]**

### **III. FEDERALLY ENFORCEABLE REQUIREMENTS - GENERAL (continued)**

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40. If subject to Section 112(r) of the Clean Air Act (1990) and 40 CFR Part 68, the permittee shall comply with the requirements of 40 CFR Part 68 no later than the latest of the following dates as provided in 40 CFR 68.10(a):
- A. June 21, 1999,
  - B. Three years after the date on which a regulated substance is first listed under 40 CFR 68.130, or
  - C. The date on which a regulated substance is first present above a threshold quantity in a process.
- [Basis: 40 CFR Part 68]**
41. If subject to Section 112(r) of the Clean Air Act (1990) and 40 CFR Part 68, the permittee shall submit any additional relevant information requested by any regulatory agency necessary to ensure compliance with the requirements of 40 CFR Part 68.  
**[Basis: 40 CFR Part 68]**
42. If subject to Section 112(r) of the Clean Air Act (1990) and 40 CFR Part 68, the permittee shall annually certify compliance with all applicable requirements of Section 112(r) of the Clean Air Act (1990) as part of the annual compliance certification as required by SMAQMD Rule 207 Section 413.4.  
**[Basis: 40 CFR Part 68]**

### **TITLE VI REQUIREMENTS (OZONE DEPLETING SUBSTANCES)**

43. Persons opening appliances containing CFCs for maintenance, service, repair or disposal must comply with the required practices pursuant to 40 CFR 82.156.  
**[Basis: 40 CFR Part 82 Subpart F]**
44. Equipment used during the maintenance, service, repair, or disposal of appliances containing CFCs must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.  
**[Basis: 40 CFR Part 82 Subpart F]**
45. Persons performing maintenance, service, repair or disposal of appliances containing CFCs must be certified by an approved technician certification program pursuant to 40 CFR 82.161.  
**[Basis: 40 CFR Part 82 Subpart F]**

### **III. FEDERALLY ENFORCEABLE REQUIREMENTS - GENERAL (continued)**

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#### **PERMIT SHIELD**

46. For the combined cycle gas turbine and duct burner, compliance with the permit conditions of the Title V permit assures compliance with the following subsumed requirements:

**A. Prior to the combined cycle gas turbine upgrade -**

- i. SMAQMD Rule 406 Specific Contaminants (11-29-1983)
- ii. SMAQMD Rule 413 Stationary Gas Turbines (05-01-1997)
- iii. SMAQMD Rule 420 Sulfur Content of Fuels (11-29-1983)
- iv. 40 CFR 60 Subpart GG NSPS Stationary Gas Turbines (02-24-2006)
- v. 40 CFR 60 Subpart Dc NSPS for Small Industrial - Commercial - Institutional Steam Generating Units

**B. After the combined cycle gas turbine upgrade -**

- i. SMAQMD Rule 406 Specific Contaminants (11-29-1983)
- ii. SMAQMD Rule 413 Stationary Gas Turbines (05-01-1997)
- iii. SMAQMD Rule 420 Sulfur Content of Fuels (11-29-1983)
- iv. 40 CFR 60 Subpart KKKK NSPS Standards of Performance for Stationary Combustion Turbines (03-20-2009)

**[Basis: U.S. EPA White Paper Number 2]**

47. For the peaking gas turbine, compliance with the permit conditions of the Title V permit assures compliance with the following subsumed requirements:

- A. SMAQMD Rule 406 Specific Contaminants (11-29-1983)
- B. SMAQMD Rule 413 Stationary Gas Turbines (05-01-1997)
- C. SMAQMD Rule 420 Sulfur Content of Fuels (11-29-1983)
- D. 40 CFR 60 Subpart GG NSPS Stationary Gas Turbines (02-24-2006)

**[Basis: U.S. EPA White Paper Number 2]**

### **III. FEDERALLY ENFORCEABLE REQUIREMENTS - GENERAL (continued)**

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48. For the IC engine, emergency use, compliance with the permit conditions of the Title V permit assures compliance with the following subsumed requirements:

- A. SMAQMD Rule 406 Specific Contaminants (11-29-1983)
- B. SMAQMD Rule 412 Stationary Internal Combustion Engines Located at Major Stationary Sources of NOx (06-01-1995)
- C. SMAQMD Rule 420 Sulfur Content of Fuels (11-29-1983)

**[Basis: U.S. EPA White Paper Number 2]**

49. The installation of an identical substitute engine core for either the combined cycle gas turbine or the peaking gas turbine for routine maintenance and repair of its original engine core shall not constitute a modification pursuant to SMAQMD Rule 202 Section 222. The operation of the temporary substitute engine core shall not involve upgrades or changes to heat input, production rate, method of operation, exhaust gas emissions or emissions control technology. All of the original emission control systems, heat recovery equipment, fuel supply system, lubrication systems, certified CEMS/DAHS and other auxiliary equipment associated with the generation unit shall remain in place.

**[Basis: SMAQMD Rule 202 Section 222 and SMAQMD Rule 207 Section 307.1]**

#### **IV. NON-FEDERALLY ENFORCEABLE REQUIREMENTS - GENERAL**

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##### **APPLICABILITY:**

1. The requirements outlined in this section are applicable to the SMAQMD Rule 201 Permits to Operate only and are not an enforceable part of the Title V permit.

##### **LOCAL PERMIT RENEWAL:**

2. Permits to Operate issued to the permittee, pursuant to SMAQMD Rule 201 (non-Title V Permits to Operate), shall be renewed annually on October 01 and upon payment of the permit renewal fee established pursuant to SMAQMD Rule 301.
3. The SMAQMD Air Pollution Control Officer shall review every SMAQMD Rule 201 Permit to Operate upon annual renewal, pursuant to California Health and Safety Code Section 42301(c), to determine that permit conditions are adequate to ensure compliance with, and the enforceability of, SMAQMD rules and regulations applicable to the article, machine, equipment or contrivance for which the permit was issued. Applicable SMAQMD rules and regulations shall include those which were in effect at the time the permit was issued or modified, or which have subsequently been adopted and made retroactively applicable to an existing article, machine, equipment or contrivance, by the SMAQMD Board of Directors. The SMAQMD Air Pollution Control Officer shall revise the conditions, if such conditions are not consistent, in accordance with all applicable SMAQMD rules and regulations.

##### **GENERAL**

4. The SMAQMD Air Pollution Control Officer and/or authorized representatives, upon the presentation of credentials shall be permitted:
  - A. To enter upon the premises where the source is located or in which any records are required to be kept under the terms and conditions of this permit to operate.
  - B. At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this Permit to Operate.
  - C. To inspect any equipment, operation, or method required in this Permit to Operate.
  - D. To sample emissions from the source or require samples to be taken.
5. Legible copies of all SMAQMD Rule 201 permits shall be maintained on the premises with the equipment.

##### **EQUIPMENT OPERATION:**

6. The equipment shall be properly maintained.
7. This permit does not authorize the emission of air contaminants in excess of those allowed by Division 26, Part 4, Chapter 3, of the Health and Safety Code of the State of California or the Rules and Regulations of the SMAQMD.

#### **IV. NON-FEDERALLY ENFORCEABLE REQUIREMENTS - GENERAL (continued)**

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##### **EQUIPMENT BREAKDOWNS:**

8. The permittee shall notify the SMAQMD Air Pollution Control Officer of any occurrence which constitutes a breakdown, as defined in SMAQMD Rule 602 Section 201, as soon as reasonably possible, but no later than one hour after its detection. If the breakdown occurs when the SMAQMD Air Pollution Control Officer cannot be contacted, the report of breakdown shall be made at the commencement of the next regular working day. The notification shall identify the time, specific location, equipment involved and, to the extent known, the cause(s) of the occurrence.
9. Upon notification of the breakdown condition, the SMAQMD Air Pollution Control Officer shall investigate the breakdown condition in accordance with uniform written procedures and guidelines relating to logging of initial reports on appropriate forms, investigation, and enforcement follow-up. If the occurrence does not constitute a breakdown condition, the SMAQMD Air Pollution Control Officer may take appropriate enforcement action.
10. An occurrence which constitutes a breakdown condition, and which persists only until the end of the production run or 24 hours, whichever is sooner (except for continuous air pollution monitoring equipment, for which the period shall be 96 hours) shall constitute a violation of any applicable emission limitation or restriction prescribed by the SMAQMD Rules and Regulations; however, the SMAQMD Air Pollution Control Officer may elect to take no enforcement action if the owner or operator demonstrates to his satisfaction that a breakdown condition exists and the following requirements are met:
  - A. The notification required in SMAQMD Rule 602 Section 301.1 of is made; and
  - B. Immediate appropriate corrective measures are undertaken and compliance is achieved, or the process is shutdown for corrective measures before commencement of the next production run or within 24 hours, whichever is sooner (except for continuous air pollution monitoring equipment for which the period shall be 96 hours). If the owner or operator elects to shut down, rather than come into immediate compliance, (s)he must nonetheless take whatever steps are possible to minimize the impact of the breakdown within the 24 hour period; and
  - C. The breakdown does not interfere with the attainment and maintenance of any national ambient air quality standard.
11. An occurrence which constitutes a breakdown condition shall not persist longer than the end of the production run or 24 hours, whichever is sooner (except for continuous air pollution monitoring equipment, for which the period shall be 96 hours), unless an emergency variance has been obtained.
12. If the breakdown condition will either require more than 24 hours to correct or persists longer than the end of the production run (except for continuous air pollution monitoring equipment, for which the period shall be 96 hours) the owner or operator may, in lieu of shutdown, request the SMAQMD Air Pollution Control Officer to commence the emergency variance procedure set forth in SMAQMD Rule 602 Section 304.

#### **IV. NON-FEDERALLY ENFORCEABLE REQUIREMENTS - GENERAL (continued)**

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13. No emergency variance shall be granted unless the chairperson of the SMAQMD Hearing Board or other designated member(s) of the SMAQMD Hearing Board finds that:
  - A. The occurrence constitutes a breakdown condition.
  - B. Continued operation is not likely to create an immediate threat or hazard to public health or safety.
  - C. The requirements for a variance set forth in California Health & Safety Code Sections 42352 and 42353 have been met.
  - D. The continued operation in a breakdown condition will not interfere with the attainment or maintenance of the national ambient air quality standards.
14. At any time after an emergency variance has been granted, the SMAQMD Air Pollution Control Officer may request for good cause that the chairperson or designated member(s) reconsider and revoke, modify or further condition the variance. The procedures set forth in SMAQMD Rule 602 Section 304.1 shall govern any further proceedings conducted under this request.
15. An emergency variance shall remain in effect only for as long as necessary to repair or remedy the breakdown condition, but in no event after a properly noticed hearing to consider an interim or 90 day variance has been held, or 15 days from the date of the subject occurrence, whichever is sooner.
16. Within one week after a breakdown condition has been corrected, the owner or operator shall submit a written report to the SMAQMD Air Pollution Control Officer on forms supplied by the SMAQMD Air Pollution Control Officer describing the causes of the breakdown, corrective measures taken, estimated emissions during the breakdown and a statement that the condition has been corrected, together with the date of correction and proof of compliance. The SMAQMD Air Pollution Control Officer may, at the request of the owner or operator for good cause, extend up to 30 days the deadline for submittal of the report described in this subsection.
17. The burden of proof shall be on the owner or operator of the source to provide sufficient information to demonstrate that a breakdown did occur. If the owner or operator fails to provide sufficient information, the SMAQMD Air Pollution Control Officer shall undertake appropriate enforcement action.
18. Any failure to comply, or comply in a timely manner, with the reporting requirements established in SMAQMD Rule 602 Sections 301.1 and 401 shall constitute a separate violation of SMAQMD Rule 602.
19. It shall constitute a separate violation of SMAQMD Rule 602 for any person to file with the SMAQMD Air Pollution Control Officer a report which falsely, or without probable cause, claims that an occurrence is a breakdown condition.

**IV. NON-FEDERALLY ENFORCEABLE REQUIREMENTS - GENERAL (continued)**

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**ARCHITECTURAL COATINGS**

20. The permittee shall comply with the requirements of SMAQMD Rule 466 Solvent Cleaning when using volatile organic compounds for the cleanup of architectural coating application equipment.

**[SMAQMD Rule 466 Sections 301 and 302 (09-25-2008 version)]**

## **V. EQUIPMENT SPECIFIC REQUIREMENTS – COMBINED CYCLE GAS TURBINE**

- A. EQUIPMENT DESCRIPTION:** The information specified under this section is enforceable by the SMAQMD, U.S. EPA and the public.

The requirements specified under the following sections apply to the following equipment.

**The description below indicates the changes that will occur when the combined cycle gas turbine is upgraded in the future. Title V regulations require that the Title V permit incorporate the significant modification prior to the initial operation of the upgraded combined cycle gas turbine.**

### **COMBINED CYCLE POWER BLOCK**

#### **Combined Cycle Gas Turbine**

Permit No.: P/O 22021 (for reference purposes only - not federally enforceable)  
Manufacturer: General Electric  
Model No.: **before upgrade** - LM6000PA  
**after upgrade** - LM6000PC Sprint/EFS  
Type: Combined Cycle  
Nominal Rating: 42 MW  
Heat Input Rating: **before upgrade** - 450 MMBTU/hour  
**after upgrade** - 500 MMBTU/hour  
Primary Fuel: Natural gas  
Secondary Fuel: Digester gas and natural gas mixture

#### **Duct Burner**

Permit No.: P/O 22066 (for reference purposes only - not federally enforceable)  
Nominal Rating: (supplies steam to a steam turbine with a rating of 17.2 MW)  
Heat Input Rating: 99.9 MMBTU/hour  
Primary Fuel: Natural gas  
Secondary Fuel: Digester gas and natural gas mixture

#### **NOx Air Pollution Control System**

Permit No.: P/O 11015 (for reference purposes only - not federally enforceable)  
Control Device: Selective Catalytic Reduction  
Manufacturer: Mitsubishi Cormetech Model CM 33  
Venting: Combined cycle gas turbine and duct burner

#### **CO Air Pollution Control System (to be installed with the combined cycle gas turbine upgrade)**

Permit No.: P/O 22022 (for reference purposes only - not federally enforceable)  
Control Device: Oxidation catalyst  
Manufacturer: to be determined when installed as part of combined cycle gas turbine upgrade  
Venting: Combined cycle gas turbine and duct burner

## **V. EQUIPMENT SPECIFIC REQUIREMENTS – COMBINED CYCLE GAS TURBINE**

**B. EQUIPMENT SPECIFIC FEDERALLY ENFORCEABLE REQUIREMENTS:** The requirements specified under this section are enforceable by the SMAQMD, U.S. EPA and the public.

### **COMMISSIONING PERIOD REQUIREMENTS**

CM1. The commissioning period is defined as follows:

- A. The commissioning period shall commence when all mechanical, electrical and control systems associated with the LM6000PC Sprint/EFS combined cycle gas turbine upgrade are installed and the combined cycle gas turbine is first fired.
- B. The commissioning period shall terminate 30 operating days after commencement, or when the CVFA Carson facility has successfully completed performance testing, tuning and shakedown operations and combined cycle gas turbine compliance is demonstrated by continuous emissions monitoring equipment, whichever occurs first.
- C. For purposes of this condition, "operating day" is defined as any calendar day during which fuel is combusted in the combined cycle gas turbine or duct burner.

**[Basis: SMAQMD Rule 202]**

CM2. The permittee shall provide to the SMAQMD Air Pollution Control Officer written notification or electronic notification of the date that:

- A. Construction commenced, postmarked no later than 30 days after such date.
- B. The commissioning period commenced, postmarked no later than 3 weekdays (Monday through Friday) after such date.
- C. The commissioning period terminated, postmarked no later than 3 weekdays (Monday through Friday) after such date.

**[Basis: SMAQMD Rule 202]**

CM3. During the commissioning period, at the earliest feasible opportunity, in accordance with recommendations of the equipment manufacturers and the construction contractor, the combined cycle gas turbine combustors shall be tuned to minimize emissions.

**[Basis: SMAQMD Rule 202]**

CM4. During the commissioning period, compliance with NO<sub>x</sub> and CO emission limits for the combined cycle gas turbine and duct burner shall be demonstrated through the use of properly operated and maintained continuous emission monitoring systems and continuous parameter monitoring systems for the following:

- A. Firing hours of the combined cycle gas turbine and duct burner
- B. Fuel flow rates to the combined cycle gas turbine and duct burner

**V. EQUIPMENT SPECIFIC REQUIREMENTS – COMBINED CYCLE GAS TURBINE**

- C. Stack gas NOx emission concentrations
- D. Stack gas CO emission concentrations

- E. Stack gas O2 concentrations  
**[Basis: SMAQMD Rule 202]**

CM5. During the commissioning period the monitored parameters shall be recorded at least once every 15 minutes (excluding normal calibration periods or when the monitored source is not in operation) for the gas turbine and duct burner. Previously approved methods shall be used to calculate heat input rates, NOx and CO mass emission rates, and NOx and CO emission concentrations, summarized for each clock hour and each calendar day. All summarized clock hour and calendar day records shall be retained on site for at least 5 years from the date of entry and made available to SMAQMD personnel upon request.

**[Basis: SMAQMD Rule 202]**

CM6. During the commissioning period the continuous emission and parameter monitors shall be installed, calibrated and operational prior to firing of the combined cycle gas turbine and duct burner with the LM6000PC Sprint/EFS upgrade. After initial firing of the combined cycle gas turbine and duct burner, the detection range of these continuous emission monitors shall be adjusted as necessary to accurately measure the resulting range of NOx and CO emission concentrations.

**[Basis: SMAQMD Rule 202]**

CM7. During the commissioning period the total mass emissions of ROC, NOx, SO2, PM10 and CO that are emitted by the combined cycle gas turbine and duct burner shall accrue towards the daily, quarterly and yearly mass emission limits in Condition Nos. 2, 3, 4, 5 and 6.

**[Basis: SMAQMD Rule 202]**

CM8. During the commissioning period the concentration of nitrogen oxides (NOx) emissions from the combined cycle gas turbine and duct burner shall not exceed the following limit:

**[Basis: SMAQMD Rule 202]**

Pollutant	Maximum Allowable NOx Concentration Combined Cycle Gas Turbine and Duct Burner ppmvd at 15% O2, averaged over any consecutive 3 hour period	
	Current Permit Limit	Permit Limit Applicable During the Commissioning Period
NOx	2.5	No limit

**V. EQUIPMENT SPECIFIC REQUIREMENTS – COMBINED CYCLE GAS TURBINE**

CM9. During the commissioning period hourly mass emissions from the combined cycle gas turbine and duct burner shall not exceed the following limits:

**[Basis: SMAQMD Rule 202]**

Pollutant	Maximum Allowable Hourly Emissions Combined Cycle Gas Turbine and Duct Burner lb/hour, averaged over any consecutive 3 hour period	
	Current Permit Limits	Permit Limits Applicable During the Commissioning Period
ROC	3.75	3.75 (no change)
NOx	5.62	21.4
SO2	2.81	2.81 (no change)
PM10	3.50	3.50 (no change)
CO	40.00	40.00 (no change)

CM10. The permittee shall perform an ROC, NOx, SO2, PM10 and CO source test of the combined cycle gas turbine and duct burner within 60 days of termination of the commissioning period.

- A. Submit a Source Test Plan to the SMAQMD Air Pollution Control Officer for approval at least 30 days before the source test is to be performed. The Source Test Plan shall indicate that U.S. EPA approved test methods are used for NOx and CO.
- B. Notify the SMAQMD Air Pollution Control Officer at least 7 days prior to the source testing date if the date has changed from that approved in the Source Test Plan.
- C. During the source test, the combined cycle gas turbine and duct burner shall be operated at the maximum firing capacity, defined as  $\geq 90\%$  of the heat input capacity achievable at the time of the source test, based on then current ambient conditions and with the maximum possible percentage of digester gas with regards to Condition Nos. 14 and 15.
- D. Submit the Source Test Report to the SMAQMD Air Pollution Control Officer within 60 days after the completion of the source test.

**[Basis: SMAQMD Rule 202]**

**V. EQUIPMENT SPECIFIC REQUIREMENTS – COMBINED CYCLE GAS TURBINE**

**EMISSION LIMIT REQUIREMENTS**

**1A. Prior to the combined cycle gas turbine upgrade -**

Combined emissions from the combined cycle gas turbine and duct burner shall not exceed the following limits.

**[Basis: SMAQMD Rule 202]**

Pollutant	Maximum Allowable Emissions (A) Combined Cycle Gas Turbine and Duct Burner Combined	
	ppmvd at 15% O2 3 hour average	lb/hour 3 hour average
ROC	NA	3.75
NOx	5	9.28
SO2	NA	2.78
PM10	NA	3.50
CO	NA	40.00

(A) Excluding start-ups as defined in Condition No. 13.

**1B. After the combined cycle gas turbine upgrade -**

Combined emissions from the combined cycle gas turbine and duct burner shall not exceed the following limits.

**[Basis: SMAQMD Rule 202]**

Pollutant	Maximum Allowable Emissions (A) Combined Cycle Gas Turbine and Duct Burner Combined	
	ppmvd at 15% O2 3 hour average	lb/hour 3 hour average
ROC	NA	3.75
NOx	2.5	5.62
SO2	NA	2.81
PM10	NA	3.50
CO	NA	40.00

(A) Excluding start-ups as defined in Condition No. 13.

(B) The 2.5 ppmvd NOx limit also applies individually to the combined cycle gas turbine and to the duct burner.

**V. EQUIPMENT SPECIFIC REQUIREMENTS – COMBINED CYCLE GAS TURBINE**

**2. After the combined cycle gas turbine upgrade -**

Combined emissions from the combined cycle gas turbine and duct burner shall not exceed the following limits.

**[Basis: SMAQMD Rule 202]**

Pollutant	Maximum Allowable Quarterly Emissions (A) Combined Cycle Gas Turbine and Duct Burner Combined			
	Quarter 1 lb/quarter	Quarter 2 lb/quarter	Quarter 3 lb/quarter	Quarter 4 lb/quarter
NOx	10,705	10,822	10,940	10,940

(A) The purpose of requiring quarterly NOx mass emission limits is to facilitate the calculation of NOx emission reduction credits from the combined cycle gas turbine and duct burner upgrade modification.

**3A. Prior to the combined cycle gas turbine upgrade -**

Emissions from the following equipment shall not exceed the following limits.

**[Basis: SMAQMD Rule 202]**

Pollutant	Maximum Allowable Emissions lb/day			
	Peaking Gas Turbine	Combined Cycle Gas Turbine and Duct Burner	Cooling Tower	Total
ROC	59.1	90.2	-	149.3
NOx	175.8	222.6	-	398.4
SO2	34.2	66.8	-	101.0
PM10	60.0	84.0	3.1	147.1
CO	142.3	547.0	-	547.0 (A)

(A) The total daily CO emissions limit of 547.0 lb/day applies to all equipment at the CVFA Carson facility, including CO emissions from the emergency use internal combustion engine [SMAQMD P/O 11020(rev1)].

- i. Daily CO emissions shall be calculated as follows:
  - a. For the combined cycle gas turbine, duct burner and the peaking gas turbine, CO emission rates shall be determined based on the CEMS data.
  - b. For the emergency use internal combustion engine, CO emission rates shall be calculated and recorded for any engine operating day based on actual engine operating time, in hours, multiplied by the emergency use internal combustion

**V. EQUIPMENT SPECIFIC REQUIREMENTS – COMBINED CYCLE GAS TURBINE**

engine’s CO emission rate of 9.75 lb/hr.

**3B. After the combined cycle gas turbine upgrade -**

Emissions from the following equipment shall not exceed the following limits.

**[Basis: SMAQMD Rule 202]**

Pollutant	Maximum Allowable Emissions lb/day			
	Peaking Gas Turbine	Combined Cycle Gas Turbine and Duct Burner	Cooling Tower	Total
ROC	59.1	90.2	-	149.3
NOx	175.8	134.8	-	310.6
SO2	34.2	67.4	-	101.6
PM10	60.0	84.0	3.1	147.1
CO	142.3	547.0	-	547.0 (A)

(A) The total daily CO emissions limit of 547.0 lb/day applies to all equipment at the CVFA Carson facility, including CO emissions from the emergency use internal combustion engine [SMAQMD P/O 11020(rev1)].

- i. Daily CO emissions shall be calculated as follows:
  - a. For the combined cycle gas turbine, duct burner and the peaking gas turbine, CO emission rates shall be determined based on the CEMS data.
  - b. For the emergency use internal combustion engine, CO emission rates shall be calculated and recorded for any engine operating day based on actual engine operating time, in hours, multiplied by the emergency use internal combustion engine’s CO emission rate of 9.75 lb/hr.

**4A. Prior to the combined cycle gas turbine upgrade -**

Emissions from the following combined equipment shall not exceed the following limits:

- i. All equipment at the CVFA Carson facility, excluding the emergency use internal combustion engine, and
- ii. Digester gas fueled boilers at the Sacramento Regional Wastewater Treatment Plant (SMAQMD P/O Nos. 19868, 19869 and 19870), and
- iii. Digester gas fueled flares at the Sacramento Regional Wastewater Treatment Plant (old flares - SMAQMD P/O No. 12526, new flares - SMAQMD P/O No. 16048).

**[Basis: SMAQMD Rule 202]**

**V. EQUIPMENT SPECIFIC REQUIREMENTS – COMBINED CYCLE GAS TURBINE**

Pollutant	Maximum Allowable Emissions				
	Quarter 1 lb/quarter	Quarter 2 lb/quarter	Quarter 3 lb/quarter	Quarter 4 lb/quarter	Annual lb/year
NOx	25,835	26,102	26,370	26,370	104,677
PM10	9,349	9,447	9,545	9,545	37,887

**4B. After the combined cycle gas turbine upgrade -**

Emissions from the following combined equipment shall not exceed the following limits:

- i. All equipment at the CVFA Carson facility, excluding the emergency use internal combustion engine, and
- ii. Digester gas fueled boilers at the Sacramento Regional Wastewater Treatment Plant (SMAQMD P/O Nos. 19868, 19869 and 19870), and
- iii. Digester gas fueled flares at the Sacramento Regional Wastewater Treatment Plant (old flares - SMAQMD P/O No. 12526, new flares - SMAQMD P/O No. 16048).

**[Basis: SMAQMD Rule 202]**

Pollutant	Maximum Allowable Emissions				
	Quarter 1 lb/quarter	Quarter 2 lb/quarter	Quarter 3 lb/quarter	Quarter 4 lb/quarter	Annual lb/year
NOx	19,289	19,483	19,678	19,678	78,128
PM10	9,349	9,447	9,545	9,545	37,887

**5A. Prior to the combined cycle gas turbine upgrade -**

Emissions from all equipment at the CVFA Carson facility, excluding the emergency use internal combustion engine, shall not exceed the following limits.

**[Basis: SMAQMD Rule 202]**

Pollutant	Maximum Allowable Emissions				
	Quarter 1 lb/quarter	Quarter 2 lb/quarter	Quarter 3 lb/quarter	Quarter 4 lb/quarter	Annual lb/year
ROC	8,984	9,078	9,172	9,172	36,406
SO2	5,661	5,724	5,786	5,786	22,957

**V. EQUIPMENT SPECIFIC REQUIREMENTS – COMBINED CYCLE GAS TURBINE**

Pollutant	Maximum Allowable Emissions				
	Quarter 1 lb/quarter	Quarter 2 lb/quarter	Quarter 3 lb/quarter	Quarter 4 lb/quarter	Annual lb/year
CO	48,822	49,364	49,907	49,907	198,000

**5B. After the combined cycle gas turbine upgrade -**

Emissions from all equipment at the CVFA Carson facility, excluding the emergency use internal combustion engine, shall not exceed the following limits.

**[Basis: SMAQMD Rule 202]**

Pollutant	Maximum Allowable Emissions				
	Quarter 1 lb/quarter	Quarter 2 lb/quarter	Quarter 3 lb/quarter	Quarter 4 lb/quarter	Annual lb/year
ROC	8,984	9,078	9,172	9,172	36,406
SO2	5,722	5,785	5,849	5,849	23,205
CO	48,822	49,364	49,907	49,907	198,000

**6A. Prior to the combined cycle gas turbine upgrade -**

Emissions from all equipment at the CVFA Carson facility, including the emergency use internal combustion engine, shall be less than the following limits.

**[Basis: SMAQMD Rule 202]**

Pollutant	Maximum Allowable Annual Emissions lb/year
ROC	36,582
NOx	106,700
SO2	23,013
PM10	38,003
CO	200,000 (A)

(A) For CO emissions, annual shall be any consecutive 12-month period.

**V. EQUIPMENT SPECIFIC REQUIREMENTS – COMBINED CYCLE GAS TURBINE**

**6B. After the combined cycle gas turbine upgrade -**

Emissions from all equipment at the CVFA Carson facility, including the emergency use internal combustion engine, shall be less than the following limits.

**[Basis: SMAQMD Rule 202]**

Pollutant	Maximum Allowable Annual Emissions lb/year
ROC	36,582
NOx	80,151
SO2	23,261
PM10	38,003
CO	200,000 (A)

(A) For CO emissions, annual shall be any consecutive 12-month period.

7. The emission factors below shall be used for calculating the NOx and PM10 emissions from the following equipment that are added to the emissions of the equipment at the CVFA Carson facility to ensure compliance with the quarterly and yearly emission limits pursuant to Condition No. 5.:

A. Digester gas fueled boilers at the Sacramento Regional Wastewater Treatment Plant (SMAQMD Permit to Operate Nos. 12476, 12477, and 12478), and

B. Digester gas fueled flares at the Sacramento Regional Wastewater Treatment Plant (old flares - SMAQMD Permit to Operate No. 12526, new flares - SMAQMD Permit to Operate No. 12475)

**[Basis: SMAQMD Rule 202]**

Pollutant	Emission Factor lb/MMBTU		
	Boilers	Old Flares	New Flares
NOx	0.0364	0.08	0.06
PM10	0.0137	0.0137	0.0137

**EQUIPMENT OPERATION REQUIREMENTS**

8. Digester gas combusted by the combined cycle gas turbine and duct burner (HRSG) shall

## **V. EQUIPMENT SPECIFIC REQUIREMENTS – COMBINED CYCLE GAS TURBINE**

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not exceed 50 ppmvd H<sub>2</sub>S averaged over any consecutive three-hour period.  
**[Basis: SMAQMD Rule 202]**

### **9A. Prior to the combined cycle gas turbine upgrade -**

The combined cycle gas turbine shall not combust more than 450 MMBTU/hr HHV total natural gas and digester gas and 90 MMBTU/hr HHV of digester gas.  
**[Basis: SMAQMD Rule 202]**

### **9B. After the combined cycle gas turbine upgrade -**

The combined cycle gas turbine shall not combust more than 500 MMBTU/hr HHV total natural gas and digester gas and 90 MMBTU/hr HHV of digester gas.  
**[Basis: SMAQMD Rule 202]**

10. The duct burner (HRSG) shall not combust more than 99.9 MMBTU/hr HHV total natural gas and digester gas.  
**[Basis: SMAQMD Rule 202]**

11. The duct burner (HRSG) shall not be operated unless the combined cycle gas turbine is operating.  
**[Basis: SMAQMD Rule 202]**

### **12A. Prior to the combined cycle gas turbine upgrade -**

The combined cycle gas turbine and the duct burner (HRSG) shall not be operated without a fully functioning selective catalytic reduction NO<sub>x</sub> air pollution control system (SMAQMD P/O No. 11015), excluding periods of start-ups and shut downs.  
**[Basis: SMAQMD Rule 202]**

### **12B. After the combined cycle gas turbine upgrade -**

The combined cycle gas turbine and the duct burner (HRSG) shall not be operated without a fully functioning selective catalytic reduction NO<sub>x</sub> air pollution control system (SMAQMD P/O No. 11015) and oxidation catalyst CO air pollution control system (SMAQMD A/C No. 22022), excluding periods of start-ups and shut downs.  
**[Basis: SMAQMD Rule 202]**

### **13.A Prior to the combined cycle gas turbine upgrade -**

1. The duration of the combined cycle gas turbine start-up period shall not exceed 60 minutes.
  - a. Start-up period is defined as the time when fuel is first introduced to the turbine to

## **V. EQUIPMENT SPECIFIC REQUIREMENTS – COMBINED CYCLE GAS TURBINE**

the time when the emissions of NO<sub>x</sub> are controlled to 5 ppmvd at 15% O<sub>2</sub> or less.  
**[Basis: SMAQMD Rule 202]**

### **13.B After the combined cycle gas turbine upgrade -**

1. The duration of the combined cycle gas turbine start-up period shall not exceed 60 minutes.
  - a. Start-up period is defined as the time when fuel is first introduced to the turbine to the time when the emissions of NO<sub>x</sub> are controlled to 2.5 ppmvd at 15% O<sub>2</sub> or less.  
**[Basis: SMAQMD Rule 202]**

### **MONITORING REQUIREMENTS**

14. The permittee shall operate a continuous emission monitoring system (CEMS) that has been approved by the SMAQMD Air Pollution Control Officer for the combined cycle gas turbine and duct burner (HRSG).
  - A. The CEMS shall monitor and record nitrogen oxides, carbon monoxide and oxygen.
  - B. For NO<sub>x</sub> and O<sub>2</sub>, the CEMS shall comply with U.S. EPA Performance Specifications in 40 CFR 75 Appendix A.
  - C. For CO, the CEMS shall comply with U.S. EPA Performance Specifications in 40 CFR 60 Appendix B Performance Specification 4.  
**[Basis: SMAQMD Rule 202]**
15. The permittee shall operate a continuous parameter monitoring system that has been approved by the SMAQMD Air Pollution Control Officer that either, measures or calculates, and records the following.  
**[Basis: SMAQMD Rule 202]**

Parameter to be Monitored	Units
A. Total fuel consumption of the combined cycle gas turbine.	MMBTU/hr of total natural gas and digester gas
B. Digester gas fuel consumption of the combined cycle gas turbine.	MMBTU/hr of digester gas
C. Total fuel consumption of the duct burner (HRSG).	MMBTU/hr of total natural gas and digester gas
D. Digester gas fuel consumption of the duct burner	MMBTU/hr of digester gas

**V. EQUIPMENT SPECIFIC REQUIREMENTS – COMBINED CYCLE GAS TURBINE**

(HRSG).	
E. Fuel consumption of boilers, new flares and old flares at the SRWTP. (A)	MMBTU/hr
F. H2S concentration of all digester gas combusted at the permittee's facility.	ppmvd

(A) Due to the standby nature of the old flares and limitations of the continuous emissions monitoring system, in the event that the old flares are utilized, their fuel consumption will be recorded manually and the resultant emissions will be added to the facility emissions

**RECORDKEEPING REQUIREMENTS**

16. The following records shall be continuously maintained on site for the most recent five year period and shall be made available to the SMAQMD Air Pollution Control Officer upon request. Quarterly and yearly records shall be made available for inspection within 30 days of the end of the reporting period.

**[Basis: SMAQMD Rule 202 and SMAQMD Rule 207 Section 502]**

Frequency	Information to be recorded
Upon occurrence	A. Date and duration of any startup or shutdown. B. Malfunction in operation of the combined cycle gas turbine. C. Measurements from the continuous monitoring system. D. Monitoring device and performance testing records including date, location, time of sampling, date analyses were performed by lab, company or entity that performed the test and analyses, analytical techniques or methods used, the results of such analyses and the operating conditions existing at the time of sampling. E. All continuous monitoring system performance evaluations. F. All continuous monitoring system or monitoring device calibration checks. G. Adjustments and maintenance performed on these systems or devices.
Hourly	H. Digester gas H2S concentration (ppmvd). I. Combined cycle gas turbine total natural gas and digester gas fuel consumption (MMBTU/hr).

**V. EQUIPMENT SPECIFIC REQUIREMENTS – COMBINED CYCLE GAS TURBINE**

Frequency	Information to be recorded
	<p>J. Combined cycle gas turbine digester gas fuel consumption (MMBTU/hr).</p> <p>K. Duct burner total natural gas and digester gas fuel consumption (MMBTU/hr).</p> <p>L. Duct burner digester gas fuel consumption (MMBTU/hr).</p> <p>M. Indicate when the combined cycle gas turbine startups occurred.</p> <p>N. Combined cycle gas turbine and duct burner ROC, NOx, SO2, PM10 and CO hourly mass emissions (lb/hour).</p> <p>O. Combined cycle gas turbine and duct burner NOx concentration (ppmvd at 15% O2).</p>
Daily	<p>P. Combined cycle gas turbine and duct burner ROC, NOx, SO2, PM10 and CO daily mass emissions (lb/day).</p> <p>Q. Total facility ROC, NOx, SO2, PM10 and CO daily mass emissions, excluding the emergency use IC engine (lb/day).</p> <p>i. For CO, the daily mass emissions shall include the emergency use IC engine.</p>
Monthly	<p>R. Total facility CO annual mass emissions, including the emergency use IC engine (lb/year).</p> <p>i. The CO annual mass emissions shall be calculated based on the previous 12 consecutive months.</p>
Quarterly	<p>S. Combined cycle gas turbine and duct burner combined quarterly NOx mass emissions (lb/quarter).</p> <p>T. Total facility ROC, NOx, SO2, PM10 and CO quarterly mass emissions, excluding the emergency use IC engine (lb/quarter).</p> <p>i. For NOx and PM10, the quarterly mass emissions shall include the emissions from the boilers and flares at the SRWTP.</p>
Yearly	<p>U. Total facility ROC, NOx, SO2 and PM10 annual mass emissions, including the emergency use IC engine.</p>

**V. EQUIPMENT SPECIFIC REQUIREMENTS – COMBINED CYCLE GAS TURBINE**

**REPORTING REQUIREMENTS**

17. For each calendar quarter submit to the SMAQMD Air Pollution Control Officer a written report which contains the following information. Each quarterly report is due by the 30th day following the end of the calendar quarter.

**[Basis: SMAQMD Rule 202]**

Frequency	Information to be Reported
Quarterly by: January 30 April 30 July 30 October 30	A. Whenever the continuous emissions monitoring system is inoperative except for zero and span checks: <ul style="list-style-type: none"> <li>i. Date and time of non-operation of the continuous emission monitoring system</li> <li>ii. Nature of the continuous emission monitoring system repairs or adjustments.</li> </ul> B. Whenever an emission occurs as measured by the required continuous emission monitoring system that is in excess of any emission limitation: <ul style="list-style-type: none"> <li>i. Magnitude of the emission which has been determined to be in excess.</li> <li>ii. Date and time of the commencement and completion of each period of excess emissions.</li> <li>iii. Periods of excess emissions due to start-up, shutdown and malfunction shall be specifically identified.</li> <li>iv. The nature and cause of any malfunction (if known).</li> <li>v. The corrective action taken or preventive measures adopted.</li> </ul> C. If there were no excess emissions for a calendar quarter: <ul style="list-style-type: none"> <li>i. A report shall be submitted indicating that there were no excess emissions.</li> </ul>

**V. EQUIPMENT SPECIFIC REQUIREMENTS – COMBINED CYCLE GAS TURBINE**

Frequency	Information to be Reported
	D. Evidence that the designated representative for the Acid Rain Program electronically reported to the U.S. EPA Administrator, within 30 days following the end of the calendar quarter, the data and information required by 40 CFR 75.64 for the previous calendar quarter.

**EMISSION REDUCTION CREDITS (ERCs) REQUIREMENTS**

18. The permittee shall surrender (and has surrendered - See Condition Nos. 19 and 20) ERCs to the SMAQMD Air Pollution Control Officer to offset the following amount of emissions:  
**[Basis: SMAQMD Rule 202]**

Equipment - Combined Cycle Gas Turbine Duct Burner Peaking Gas Turbine Cooling Tower	Amount of Emission Offsets for which ERCs are to be Surrendered lb/quarter			
	Quarter 1	Quarter 2	Quarter 3	Quarter 4
NOx	24,160	24,427	24,695	24,695
PM10	8,849	8,947	9,045	9,045

19. The following ERCs have been surrendered to the SMAQMD Air Pollution Control Officer to comply with the NOx emission offset requirements as stated in Condition No. 18.  
**[Basis: SMAQMD Rule 202]**

ERC Certificate No.	Face Value of Emission Reduction Credit Certificates lb/quarter				IPTR (A)	Offset Ratio	Value Applied to NOx Emission Liability lb/quarter			
	Qtr 1	Qtr 2	Qtr 3	Qtr 4			Qtr 1	Qtr 2	Qtr 3	Qtr 4
SMAQMD 00050 Campbell Soup	24,184	24,380	24,984	27,136	NA	1.3:1	18,603	18,754	19,219	20,874
SMAQMD SRWTP	7,224	7,375	7,119	4,967	NA	1.3:1	5,557	5,673	5,476	3,821

**V. EQUIPMENT SPECIFIC REQUIREMENTS – COMBINED CYCLE GAS TURBINE**

Total NOx Emission Offsets	24,160	24,427	24,695	24,695
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- (A) IPTR = interpollutant trading ratio
- (B) The Offset Ratio at the time of the original permitting of the facility combined the SMAQMD Rule 204 adjustment of 1.1 emission reductions to 1.0 ERCs with the SMAQMD Rule 202 offset ratio of 1.2 to 1.0.

20. The following ERCs have been surrendered to the SMAQMD Air Pollution Control Officer to comply with the PM10 emission offset requirements as stated in Condition No. 18.

**[Basis: SMAQMD Rule 202]**

ERC Certificate No.	Face Value of Emission Reduction Credit Certificates lb/quarter				IPTR (A)	Offset Ratio	Value Applied to PM10 Emission Liability lb/quarter			
	Qtr 1	Qtr 2	Qtr 3	Qtr 4			Qtr 1	Qtr 2	Qtr 3	Qtr 4
SMAQMD 00051 SRWTP	1,990	2,986	3,019	2,055	NA	1.3:1	1,531	2,297	2,322	1,581
SMAQMD 00057 Swansons (ROC)	7,787	6,984	7,152	8,407	1:1	1.3:1	5,990	5,372	5,502	6,467
SMAQMD SRWTP	1,727	1,661	1,587	1,296	NA	1.3:1	1,328	1,278	1,221	997
<b>Total PM10 Emission Offsets</b>							<b>8,849</b>	<b>8,947</b>	<b>9,045</b>	<b>9,045</b>

- (A) IPTR = interpollutant trading ratio
- (B) The Offset Ratio at the time of the original permitting of the facility combined the SMAQMD Rule 204 adjustment of 1.1 emission reductions to 1.0 ERCs with the SMAQMD Rule 202 offset ratio of 1.2 to 1.0.

**SOURCE TESTING REQUIREMENTS**

21. An ROC, NOx, SO2 and CO source test and CEM accuracy test of the combined cycle gas turbine and duct burner shall be performed once every calendar year. A PM10 source test of the combined cycle gas turbine and duct burner shall be performed in calendar year 2001 and every fifth calendar year thereafter.

## **V. EQUIPMENT SPECIFIC REQUIREMENTS – COMBINED CYCLE GAS TURBINE**

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- A. Submit a Source Test Plan to the SMAQMD Air Pollution Control Officer for approval at least 30 days before the source test is to be performed.
- B. Notify the SMAQMD Air Pollution Control Officer at least 7 days prior to the emission testing date, if the date has changed from that approved in the Source Test Plan.
- C. During the source test, the combined cycle gas turbine and duct burner shall be operated at the maximum firing capacity, defined as  $\geq 90\%$  of the heat input capacity achievable at the time of the source test, based on then current ambient conditions and with the maximum possible percentage of digester gas with regards to Condition Nos. 9 and 10.
- D. During the source test, the combined cycle gas turbine shall also be operated at 50% of maximum total firing capacity for ROC and CO testing.
- E. Submit the Source Test Results Report to the SMAQMD Air Pollution Control Officer within 60 days from the completion of the source test.

**[Basis: SMAQMD Rule 202]**

**V. EQUIPMENT SPECIFIC REQUIREMENTS – COMBINED CYCLE GAS TURBINE**

**C. EQUIPMENT SPECIFIC NON-FEDERALLY ENFORCEABLE REQUIREMENTS**

**COMMISSIONING REQUIREMENTS**

CM10A. The permittee shall perform an ammonia (NH3) source test of the combined cycle gas turbine and duct burner within 60 days of termination of the commissioning period.

- A. Submit a Source Test Plan to the SMAQMD Air Pollution Control Officer for approval at least 30 days before the source test is to be performed. The Source Test Plan shall indicate that U.S. EPA approved test methods are used for NOx and CO.
- B. Notify the SMAQMD Air Pollution Control Officer at least 7 days prior to the source testing date if the date has changed from that approved in the Source Test Plan.
- C. During the source test, the combined cycle gas turbine and duct burner shall be operated at the maximum firing capacity, defined as  $\geq 90\%$  of the heat input capacity achievable at the time of the source test, based on then current ambient conditions and with the maximum possible percentage of digester gas with regards to Condition Nos. 14 and 15.
- D. Submit the Source Test Report to the SMAQMD Air Pollution Control Officer within 60 days after the completion of the source test.

**[Basis: SMAQMD Rule 201]**

**EMISSION LIMIT REQUIREMENTS**

22. Combined emissions from the combined cycle gas turbine and duct burner shall not exceed the following limits.

**[Basis: SMAQMD Rule 402]**

Pollutant	Maximum Allowable Emissions (A) Combined Cycle Gas Turbine and Duct Burner Combined	
	lb/hour 3 hour average	ppmvd at 15% O2 3 hour average
Ammonia (NH3)	NA	20

(A) Excluding start-ups as defined in Condition No. 13.

**SOURCE TESTING REQUIREMENTS**

23. An ammonia (NH3) source test of the combined cycle gas turbine and duct burner shall be performed once every calendar year.

- A. Submit a Source Test Plan to the SMAQMD Air Pollution Control Officer for approval at least 30 days before the source test is to be performed.

## **V. EQUIPMENT SPECIFIC REQUIREMENTS – COMBINED CYCLE GAS TURBINE**

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- B. Notify the SMAQMD Air Pollution Control Officer at least 7 days prior to the emission testing date, if the date has changed from that approved in the Source Test Plan.
- C. During the source test, the combined cycle gas turbine and duct burner shall be operated at the maximum firing capacity, defined as  $\geq 90\%$  of the heat input capacity achievable at the time of the source test, based on then current ambient conditions and with the maximum possible percentage of digester gas with regards to Condition Nos. 9 and 10.
- D. Submit the Source Test Results Report to the SMAQMD Air Pollution Control Officer within 60 days from the completion of the source test.

**[Basis: SMAQMD Rule 201]**

## **V. EQUIPMENT SPECIFIC REQUIREMENTS – ACID RAIN PERMIT COMBINED CYCLE GAS TURBINE**

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### **D. ACID RAIN PERMIT:**

The requirements specified under this subsection are issued in accordance with SMAQMD Rule 207 - TITLE V-FEDERAL OPERATING PERMIT PROGRAM, SMAQMD Rule 208 - ACID RAIN and Titles IV and V of the federal Clean Air Act, and are enforceable by the SMAQMD, the U.S. EPA and the public.

#### **PERMIT REQUIREMENTS**

24. The designated representative of each affected source and each affected unit at the source shall:

- A. 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
- B. 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.

**[Basis: 40 CFR 72.9(a)(1)]**

25. The owners and operators of each affected source and each affected unit at the source shall:

- A. Operate the unit in compliance with a complete Acid Rain permit application or a superseding Acid Rain permit issued by the permitting authority; and
- B. Have an Acid Rain Permit.

**[Basis: 40 CFR 72.9(a)(2)]**

#### **MONITORING REQUIREMENTS**

26. 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 Parts 74, 75 and 76.

**[Basis: 40 CFR 72.9(b)(1)]**

27. 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.

**[Basis: 40 CFR 72.9(b)(2)]**

28. The sulfur content of the digester gas and total SO<sub>2</sub> emissions shall be calculated in accordance with the alternative method specified in the Acid Rain Monitoring Plan and U.S. EPA's letters dated February 17, 1999, and February 22, 1999.

**[Basis: 40 CFR 75.66(c)]**

## **V. EQUIPMENT SPECIFIC REQUIREMENTS – ACID RAIN PERMIT COMBINED CYCLE GAS TURBINE**

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29. CO<sub>2</sub> emissions shall be calculated as specified in the Acid Rain Monitoring Plan and U.S. EPA's letters dated February 17, 1999, and February 22, 1999.  
**[Basis: 40 CFR 75.66(c)]**
30. The digester gas fuel flowmeters shall be calibrated as described in Section IX of the Acid Rain permit application, 40 CFR Parts 75 Appendix D, U.S. EPA's approval of CVFA Carson's petitions for exceptions under 40 CFR 75.66(c) and U.S. EPA's letters dated February 17, 1999, and February 22, 1999.  
**[Basis: 40 CFR 75.66(c)]**
31. The requirements of 40 CFR Parts 74 and 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.  
**[Basis: 40 CFR 72.9(b)(3)]**

### **SULFUR DIOXIDE REQUIREMENTS**

32. The owners and operators of each source and each affected unit at the source shall:
- A. Hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR 73.34(c)) not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; and
  - B. Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.  
**[Basis: 40 CFR 72.9(c)(1)]**
33. 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.  
**[Basis: 40 CFR 72.9(c)(2)]**
34. An affected unit shall be subject to the requirements under 40 CFR 72.9(c)(1) as follows:
- A. Starting January 1, 2000, an affected unit under 40 CFR 72.6(a)(2); or
  - B. 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).  
**[Basis: 40 CFR 72.9(c)(3)]**
35. Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.  
**[Basis: 40 CFR 72.9(c)(4)]**
36. An allowance shall not be deducted in order to comply with the requirements of 40 CFR 72.9(c)(1)(i) prior to the calendar year for which the allowance was allocated.  
**[Basis: 40 CFR 72.9(c)(5)]**

## **V. EQUIPMENT SPECIFIC REQUIREMENTS – ACID RAIN PERMIT COMBINED CYCLE GAS TURBINE**

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37. An allowance allocated by the U.S. EPA 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 the written exemption under 40 CFR 72.7 and 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.  
**[Basis: 40 CFR 72.9(c)(6)]**

38. An allowance allocated by the U.S. EPA Administrator under the Acid Rain Program does not constitute a property right.  
**[Basis: 40 CFR 72.9(c)(7)]**

### **EXCESS EMISSIONS REQUIREMENTS**

39. 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.  
**[Basis: 40 CFR 72.9(e)(1)]**

40. The owners and operators of an affected unit that has excess emissions in any calendar year shall:

A. Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR Part 77; and

B. Comply with the terms of an approved offset plan, as required by 40 CFR Part 77.  
**[Basis: 40 CFR 72.9(e)(2)]**

### **RECORDKEEPING AND REPORTING REQUIREMENTS**

41. 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 U.S. EPA Administrator or permitting authority:

A. 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;

B. All emissions monitoring information, in accordance with 40 CFR Part 75;

C. Copies of all reports, compliance certifications and other submissions and all records made or required under the Acid Rain Program; and,

## **V. EQUIPMENT SPECIFIC REQUIREMENTS – ACID RAIN PERMIT COMBINED CYCLE GAS TURBINE**

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D. 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.

**[Basis: 40 CFR 72.9(f)(1)]**

42. 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.

**[Basis: 40 CFR 72.9(f)(2)]**

43. The permittee shall begin complying with the reporting requirements of 40 CFR Part 75 (as modified by the determinations and conditions described in U.S. EPA's letters dated February 17, 1999 and February 22, 1999) by the earlier of October 1, 1999, or the date and hour on which the permittee successfully completes all certification testing for its fuel flow and NOx emissions monitoring systems.

**[Basis: 40 CFR 75.66]**

### **LIABILITY REQUIREMENTS**

44. 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 a written 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.

**[Basis: 40 CFR 72.9(g)(1)]**

45. 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.

**[Basis: 40 CFR 72.9(g)(2)]**

46. 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.

**[Basis: 40 CFR 72.9(g)(3)]**

47. Each affected source and each affected unit shall meet the requirements of the Acid Rain Program.

**[Basis: 40 CFR 72.9(g)(4)]**

48. 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.

**[Basis: 40 CFR 72.9(g)(5)]**

## **V. EQUIPMENT SPECIFIC REQUIREMENTS – ACID RAIN PERMIT COMBINED CYCLE GAS TURBINE**

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49. 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 (NOx 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.

**[Basis: 40 CFR 72.9(g)(6)]**

50. 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.

**[Basis: 40 CFR 72.9(g)(7)]**

### **EFFECT ON OTHER AUTHORITIES**

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

- A. 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;
- B. 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;
- C. 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;
- D. Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,
- E. Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

**[Basis: 40 CFR 72.9(h)]**

**V. EQUIPMENT SPECIFIC REQUIREMENTS – PEAKING GAS TURBINE**

**A. EQUIPMENT DESCRIPTION:** The information specified under this section is enforceable by the SMAQMD, U.S. EPA and the public.

The requirements specified under the following sections apply to the following equipment:

**PEAKING GAS TURBINE POWER BLOCK**

**Peaking Gas Turbine Unit**

Permit No.: P/O 15535(rev2) (for reference purposes only - not federally enforceable)  
 Manufacturer: General Electric  
 Model No.: LM6000  
 Type: Simple Cycle  
 Nominal Rating: 42 MW  
 Heat Input Rating: 450 MMBTU/hour  
 Primary Fuel: Natural gas  
 Secondary Fuel: Digester gas and natural gas mixture

**NOx Air Pollution Control System**

Permit No.: P/O 11017 (for reference purposes only - not federally enforceable)  
 Control Device: Selective Catalytic Reduction  
 Manufacturer: Mitsubishi Cormetech Model CM 42HT  
 Venting: Peaking Gas Turbine

**CO Air Pollution Control System**

Permit No.: P/O 11018 (for reference purposes only - not federally enforceable)  
 Control Device: Oxidation Catalyst  
 Manufacturer: W.R. Grace Type 2-22  
 Venting: Peaking Gas Turbine

**B. EQUIPMENT SPECIFIC FEDERALLY ENFORCEABLE REQUIREMENTS:** The requirements specified under this section are enforceable by the SMAQMD, U.S. EPA and the public.

**EMISSION LIMIT REQUIREMENTS**

- Emissions from the peaking gas turbine shall not exceed the following limits.  
**[Basis: SMAQMD Rule 202]**

Pollutant	Maximum Allowable Emissions (A) Peaking Gas Turbine	
	ppmvd at 15% O2 3 hour average	lb/hour 3 hour average
ROC	NA	2.46
NOx	5	7.33

**V. EQUIPMENT SPECIFIC REQUIREMENTS – PEAKING GAS TURBINE**

Pollutant	Maximum Allowable Emissions (A) Peaking Gas Turbine	
	ppmvd at 15% O2 3 hour average	lb/hour 3 hour average
SO2	NA	1.42
PM10	NA	2.50
CO	NA	5.93

(A) Excluding start-ups as defined in Condition No. 11.

2. [Reserved]

**3A. Prior to the combined cycle gas turbine upgrade -**

Emissions from the following equipment shall not exceed the following limits.

**[Basis: SMAQMD Rule 202]**

Pollutant	Maximum Allowable Emissions lb/day			
	Peaking Gas Turbine	Combined Cycle Gas Turbine and Duct Burner	Cooling Tower	Total
ROC	59.1	90.2	-	149.3
NOx	175.8	222.6	-	398.4
SO2	34.2	66.8	-	101.0
PM10	60.0	84.0	3.1	147.1
CO	142.3	547.0	-	547.0 (A)

(A) The total daily CO emissions limit of 547.0 lb/day applies to all equipment at the CVFA Carson facility, including CO emissions from the emergency use internal combustion engine [SMAQMD P/O 11020(rev1)].

- i. Daily CO emissions shall be calculated as follows:
  - a. For the combined cycle gas turbine, duct burner and the peaking gas turbine, CO emission rates shall be determined based on the CEMS data.
  - b. For the emergency use internal combustion engine, CO emission rates shall be calculated and recorded for any engine operating day based on actual engine operating time, in hours, multiplied by the emergency use internal combustion engine's CO emission rate of 9.75 lb/hr.

**V. EQUIPMENT SPECIFIC REQUIREMENTS – PEAKING GAS TURBINE**

**3B. After the combined cycle gas turbine upgrade -**

Emissions from the following equipment shall not exceed the following limits.  
**[Basis: SMAQMD Rule 202]**

Pollutant	Maximum Allowable Emissions lb/day			
	Peaking Gas Turbine	Combined Cycle Gas Turbine and Duct Burner	Cooling Tower	Total
ROC	59.1	90.2	-	149.3
NOx	175.8	134.8	-	310.6
SO2	34.2	67.4	-	101.6
PM10	60.0	84.0	3.1	147.1
CO	142.3	547.0	-	547.0 (A)

(A) The total daily CO emissions limit of 547.0 lb/day applies to all equipment at the CVFA Carson facility, including CO emissions from the emergency use internal combustion engine [SMAQMD P/O 11020(rev1)].

- i. Daily CO emissions shall be calculated as follows:
  - a. For the combined cycle gas turbine, duct burner and the peaking gas turbine, CO emission rates shall be determined based on the CEMS data.
  - b. For the emergency use internal combustion engine, CO emission rates shall be calculated and recorded for any engine operating day based on actual engine operating time, in hours, multiplied by the emergency use internal combustion engine’s CO emission rate of 9.75 lb/hr.

**4A. Prior to the combined cycle gas turbine upgrade -**

Emissions from the following combined equipment shall not exceed the following limits:

- i. All equipment at the CVFA Carson facility, excluding the emergency use internal combustion engine, and
- ii. Digester gas fueled boilers at the Sacramento Regional Wastewater Treatment Plant (SMAQMD P/O Nos. 19868, 19869 and 19870), and
- iii. Digester gas fueled flares at the Sacramento Regional Wastewater Treatment Plant (old flares - SMAQMD P/O No. 12526, new flares - SMAQMD P/O No. 16048).

**[Basis: SMAQMD Rule 202]**

**V. EQUIPMENT SPECIFIC REQUIREMENTS – PEAKING GAS TURBINE**

Pollutant	Maximum Allowable Emissions				
	Quarter 1 lb/quarter	Quarter 2 lb/quarter	Quarter 3 lb/quarter	Quarter 4 lb/quarter	Annual lb/year
NOx	25,835	26,102	26,370	26,370	104,677
PM10	9,349	9,447	9,545	9,545	37,887

**4B. After the combined cycle gas turbine upgrade -**

Emissions from the following combined equipment shall not exceed the following limits:

- i. All equipment at the CVFA Carson facility, excluding the emergency use internal combustion engine, and
- ii. Digester gas fueled boilers at the Sacramento Regional Wastewater Treatment Plant (SMAQMD P/O Nos. 19868, 19869 and 19870), and
- iii. Digester gas fueled flares at the Sacramento Regional Wastewater Treatment Plant (old flares - SMAQMD P/O No. 12526, new flares - SMAQMD P/O No. 16048).

**[Basis: SMAQMD Rule 202]**

Pollutant	Maximum Allowable Emissions				
	Quarter 1 lb/quarter	Quarter 2 lb/quarter	Quarter 3 lb/quarter	Quarter 4 lb/quarter	Annual lb/year
NOx	19,289	19,483	19,678	19,678	78,128
PM10	9,349	9,447	9,545	9,545	37,887

**5A. Prior to the combined cycle gas turbine upgrade -**

Emissions from all equipment at the CVFA Carson facility, excluding the emergency use internal combustion engine, shall not exceed the following limits.

**[Basis: SMAQMD Rule 202]**

Pollutant	Maximum Allowable Emissions				
	Quarter 1 lb/quarter	Quarter 2 lb/quarter	Quarter 3 lb/quarter	Quarter 4 lb/quarter	Annual lb/year
ROC	8,984	9,078	9,172	9,172	36,406
SO2	5,661	5,724	5,786	5,786	22,957

**V. EQUIPMENT SPECIFIC REQUIREMENTS – PEAKING GAS TURBINE**

Pollutant	Maximum Allowable Emissions				
	Quarter 1 lb/quarter	Quarter 2 lb/quarter	Quarter 3 lb/quarter	Quarter 4 lb/quarter	Annual lb/year
CO	48,822	49,364	49,907	49,907	198,000

**5B. After the combined cycle gas turbine upgrade -**

Emissions from all equipment at the CVFA Carson facility, excluding the emergency use internal combustion engine, shall not exceed the following limits.

**[Basis: SMAQMD Rule 202]**

Pollutant	Maximum Allowable Emissions				
	Quarter 1 lb/quarter	Quarter 2 lb/quarter	Quarter 3 lb/quarter	Quarter 4 lb/quarter	Annual lb/year
ROC	8,984	9,078	9,172	9,172	36,406
SO <sub>2</sub>	5,722	5,785	5,849	5,849	23,205
CO	48,822	49,364	49,907	49,907	198,000

**6A. Prior to the combined cycle gas turbine upgrade -**

Emissions from all equipment at the CVFA Carson facility, including the emergency use internal combustion engine, shall be less than the following limits.

**[Basis: SMAQMD Rule 202]**

Pollutant	Maximum Allowable Annual Emissions lb/year
ROC	36,582
NO <sub>x</sub>	106,700
SO <sub>2</sub>	23,013
PM <sub>10</sub>	38,003
CO	200,000 (A)

(A) For CO emissions, annual shall be any consecutive 12-month period.

**V. EQUIPMENT SPECIFIC REQUIREMENTS – PEAKING GAS TURBINE**

**6B. After the combined cycle gas turbine upgrade -**

Emissions from all equipment at the CVFA Carson facility, including the emergency use internal combustion engine, shall be less than the following limits.

**[Basis: SMAQMD Rule 202]**

Pollutant	Maximum Allowable Annual Emissions lb/year
ROC	36,582
NOx	80,151
SO2	23,261
PM10	38,003
CO	200,000 (A)

(A) For CO emissions, annual shall be any consecutive 12-month period.

7. The emission factors below shall be used for calculating the NOx and PM10 emissions from the following equipment that are added to the emissions of the equipment at the CVFA Carson facility to ensure compliance with the quarterly and yearly emission limits pursuant to Condition No. 5.:

A. Digester gas fueled boilers at the Sacramento Regional Wastewater Treatment Plant (SMAQMD Permit to Operate Nos. 12476, 12477, and 12478), and

B. Digester gas fueled flares at the Sacramento Regional Wastewater Treatment Plant (old flares - SMAQMD Permit to Operate No. 12526, new flares - SMAQMD Permit to Operate No. 12475)

**[Basis: SMAQMD Rule 202]**

Pollutant	Emission Factor lb/MMBTU		
	Boilers	Old Flares	New Flares
NOx	0.0364	0.08	0.06
PM10	0.0137	0.0137	0.0137

**EQUIPMENT OPERATION REQUIREMENTS**

## **V. EQUIPMENT SPECIFIC REQUIREMENTS – PEAKING GAS TURBINE**

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8. Digester gas combusted by the peaking gas turbine shall not exceed 50 ppmvd H<sub>2</sub>S averaged over any consecutive three-hour period.  
**[Basis: SMAQMD Rule 202]**
9. The peaking gas turbine shall not combust more than 450 MMBTU/hr HHV total natural gas and digester gas and 90 MMBTU/hr HHV of digester gas.  
**[Basis: SMAQMD Rule 202]**
10. The peaking gas turbine shall not be operated without a fully functioning NO<sub>x</sub> selective catalytic reduction (P/O No. 11017) and CO oxidation catalyst (P/O No. 11018) air pollution control system, excluding periods of start-ups and shut downs.  
**[Basis: SMAQMD Rule 202]**
11. The duration of the peaking gas turbine start-up period shall not exceed 30 minutes.
- A. Start-up period is defined as the time when fuel is first introduced to the turbine to the time when the emissions of NO<sub>x</sub> are controlled to 5 ppmvd at 15% O<sub>2</sub> or less.  
**[Basis: SMAQMD Rule 202]**

### **MONITORING REQUIREMENTS**

12. The permittee shall operate a continuous emission monitoring system (CEMS) that has been approved by the SMAQMD Air Pollution Control Officer for the peaking gas turbine.
- A. The CEMS shall monitor and record nitrogen oxides, carbon monoxide and oxygen.
- B. For NO<sub>x</sub> and O<sub>2</sub>, the CEMS shall comply with U.S. EPA Performance Specifications in 40 CFR 75 Appendix A.
- C. For CO, the CEMS shall comply with U.S. EPA Performance Specifications in 40 CFR 60 Appendix B Performance Specification 4.  
**[Basis: SMAQMD Rule 202]**
13. The permittee shall operate a continuous parameter monitoring system that has been approved by the SMAQMD Air Pollution Control Officer that either, measures or calculates, and records the following.  
**[Basis: SMAQMD Rule 202]**

Parameter to be Monitored	Units
A. Total fuel consumption of the peaking gas turbine.	MMBTU/hr of total natural gas and digester gas

**V. EQUIPMENT SPECIFIC REQUIREMENTS – PEAKING GAS TURBINE**

B. Digester gas fuel consumption of the peaking gas turbine.	MMBTU/hr of digester gas
C. Fuel consumption of boilers, new flares and old flares at the SRWTP. (A)	MMBTU/hr
D. H2S concentration of all digester gas combusted at the permittee's facility.	ppmvd

(A) Due to the standby nature of the old flares and limitations of the continuous emissions monitoring system, in the event that the old flares are utilized, their fuel consumption will be recorded manually and the resultant emissions will be added to the facility emissions

**RECORDKEEPING REQUIREMENTS**

14. The following records shall be continuously maintained on site for the most recent five year period and shall be made available to the SMAQMD Air Pollution Control Officer upon request. Quarterly and yearly records shall be made available for inspection within 30 days of the end of the reporting period.

**[Basis: SMAQMD Rule 202 and SMAQMD Rule 207 Section 502]**

Frequency	Information to be recorded
Upon occurrence	A. Date and duration of any startup or shutdown. B. Malfunction in operation of the peaking gas turbine. C. Measurements from the continuous monitoring system. D. Monitoring device and performance testing records including date, location, time of sampling, date analyses were performed by lab, company or entity that performed the test and analyses, analytical techniques or methods used, the results of such analyses and the operating conditions existing at the time of sampling. E. All continuous monitoring system performance evaluations. F. All continuous monitoring system or monitoring device calibration checks. G. Adjustments and maintenance performed on these systems or devices.
Hourly	H. Digester gas H2S concentration (ppmvd). I. Peaking gas turbine total natural gas and digester gas fuel consumption (MMBTU/hr).

**V. EQUIPMENT SPECIFIC REQUIREMENTS – PEAKING GAS TURBINE**

Frequency	Information to be recorded
	J. Peaking gas turbine digester gas fuel consumption (MMBTU/hr). K. Indicate when peaking gas turbine startup occurred. L. Peaking gas turbine ROC, NOx, SO2, PM10 and CO hourly mass emissions (lb/hour). M. Peaking gas turbine NOx concentration (ppmvd at 15% O2).
Daily	N. Peaking gas turbine ROC, NOx, SO2, PM10 and CO daily mass emissions (lb/day). O. Total facility ROC, NOx, SO2, PM10 and CO daily mass emissions, excluding the emergency use internal combustion engine (lb/day). i. For CO, the daily mass emissions shall include the emergency use internal combustion engine.
Monthly	P. Total facility CO annual mass emissions, including the emergency use internal combustion engine (lb/year). i. The CO annual mass emissions shall be calculated based on the previous 12 consecutive months.
Quarterly	Q. Total facility ROC, NOx, SO2, PM10 and CO quarterly mass emissions, excluding the emergency use internal combustion engine (lb/quarter). i. For NOx and PM10, the quarterly mass emissions shall include the emissions from the boilers and flares at the SRWTP.
Yearly	R. Total facility ROC, NOx, SO2 and PM10 annual mass emissions, including the emergency use internal combustion engine (lb/year).

**REPORTING REQUIREMENTS**

15. For each calendar quarter submit to the SMAQMD Air Pollution Control Officer a written report which contains the following. Each quarterly report is due by the 30th day following the end of the calendar quarter.

**[Basis: SMAQMD Rule 202]**

Frequency	Information to be Reported
Quarterly	A. Whenever the continuous emissions monitoring system is inoperative

## V. EQUIPMENT SPECIFIC REQUIREMENTS – PEAKING GAS TURBINE

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<p>by: January 30 April 30 July 30 October 30</p>	<p>except for zero and span checks:</p> <ul style="list-style-type: none"><li>i. Date and time of non operation of the continuous emission monitoring system</li><li>ii. Nature of the continuous emission monitoring system repairs or adjustments.</li></ul> <p>B. Whenever an emission occurs as measured by the required continuous emission monitoring system that is in excess of any emission limitation:</p> <ul style="list-style-type: none"><li>i. Magnitude of the emission which has been determined to be in excess.</li><li>ii. Date and time of the commencement and completion of each period of excess emissions.</li><li>iii. Periods of excess emissions due to start-up, shutdown and malfunction shall be specifically identified.</li><li>iv. The nature and cause of any malfunction (if known).</li><li>v. The corrective action taken or preventive measures adopted.</li></ul> <p>C. If there were no excess emissions for a calendar quarter:</p> <ul style="list-style-type: none"><li>i. A report shall be submitted indicating that there were no excess emissions.</li></ul> <p>D. Evidence that the designated representative for the Acid Rain Program electronically reported to the U.S. EPA Administrator, within 30 days following the end of the calendar quarter, the data and information required by 40 CFR 75.64 for the previous calendar quarter.</p>
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16. [Reserved]

17. [Reserved]

**V. EQUIPMENT SPECIFIC REQUIREMENTS – PEAKING GAS TURBINE**

**EMISSION REDUCTION CREDITS (ERCs) REQUIREMENTS**

18. The permittee shall surrender (and has surrendered - See Condition Nos. 19 and 20) ERCs to the SMAQMD Air Pollution Control Officer to offset the following amount of emissions:  
**[Basis: SMAQMD Rule 202]**

Equipment - Combined Cycle Gas Turbine Duct Burner Peaking Gas Turbine Cooling Tower	Amount of Emission Offsets for which ERCs are to be Surrendered lb/quarter			
	Quarter 1	Quarter 2	Quarter 3	Quarter 4
NOx	24,160	24,427	24,695	24,695
PM10	8,849	8,947	9,045	9,045

19. The following ERCs have been surrendered to the SMAQMD Air Pollution Control Officer to comply with the NOx emission offset requirements as stated in Condition No. 18.  
**[Basis: SMAQMD Rule 202]**

ERC Certificate No.	Face Value of Emission Reduction Credit Certificates lb/quarter				IPTR (A)	Offset Ratio	Value Applied to NOx Emission Liability lb/quarter			
	Qtr 1	Qtr 2	Qtr 3	Qtr 4			Qtr 1	Qtr 2	Qtr 3	Qtr 4
SMAQMD 00050 Campbell Soup	24,184	24,380	24,984	27,136	NA	1.3:1	18,603	18,754	19,219	20,874
SMAQMD SRWTP	7,224	7,375	7,119	4,967	NA	1.3:1	5,557	5,673	5,476	3,821

**V. EQUIPMENT SPECIFIC REQUIREMENTS – PEAKING GAS TURBINE**

Total NOx Emission Offsets	24,160	24,427	24,695	24,695
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- (A) IPTR = interpollutant trading ratio
- (B) The Offset Ratio at the time of the original permitting of the facility combined the SMAQMD Rule 204 adjustment of 1.1 emission reductions to 1.0 ERCs with the SMAQMD Rule 202 offset ratio of 1.2 to 1.0.

20. The following ERCs have been surrendered to the SMAQMD Air Pollution Control Officer to comply with the PM10 emission offset requirements as stated in Condition No. 18.

**[Basis: SMAQMD Rule 202]**

ERC Certificate No.	Face Value of Emission Reduction Credit Certificates lb/quarter				IPTR (A)	Offset Ratio	Value Applied to PM10 Emission Liability lb/quarter			
	Qtr 1	Qtr 2	Qtr 3	Qtr 4			Qtr 1	Qtr 2	Qtr 3	Qtr 4
SMAQMD 00051 SRWTP	1,990	2,986	3,019	2,055	NA	1.3:1	1,531	2,297	2,322	1,581
SMAQMD 00057 Swansons (ROC)	7,787	6,984	7,152	8,407	1:1	1.3:1	5,990	5,372	5,502	6,467
SMAQMD SRWTP	1,727	1,661	1,587	1,296	NA	1.3:1	1,328	1,278	1,221	997
<b>Total PM10 Emission Offsets</b>							<b>8,849</b>	<b>8,947</b>	<b>9,045</b>	<b>9,045</b>

- (A) IPTR = interpollutant trading ratio
- (B) The Offset Ratio at the time of the original permitting of the facility combined the SMAQMD Rule 204 adjustment of 1.1 emission reductions to 1.0 ERCs with the SMAQMD Rule 202 offset ratio of 1.2 to 1.0.

**SOURCE TESTING REQUIREMENTS**

21. An ROC, NOx, SO2 and CO source test and CEM accuracy test of the peaking gas turbine shall be performed once every calendar year. A PM10 source test of the peaking gas turbine shall be performed in calendar year 2001 and every fifth calendar year thereafter.

## **V. EQUIPMENT SPECIFIC REQUIREMENTS – PEAKING GAS TURBINE**

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- A. Submit a Source Test Plan to the SMAQMD Air Pollution Control Officer for approval at least 30 days before the source test is to be performed.
- B. Notify the SMAQMD Air Pollution Control Officer at least 7 days prior to the emission testing date, if the date has changed from that approved in the Source Test Plan.
- C. During the source test, the peaking gas turbine shall be operated at the maximum firing capacity, defined as  $\geq 90\%$  of the heat input capacity achievable at the time of the source test, based on then current ambient conditions.
  - i. If the peaking gas turbine has combusted digester gas in the time period since the last source test, then during the current source test, the peaking gas turbine shall combust the maximum available quantity of digester gas as limited by Condition No. 9.
- D. During the source test, the peaking gas turbine shall also be operated at 50% of maximum total firing capacity for ROC and CO testing.
- E. Submit the Source Test Results Report to the SMAQMD Air Pollution Control Officer within 60 days from the completion of the source test.

**[Basis: SMAQMD Rule 202]**

## **V. EQUIPMENT SPECIFIC REQUIREMENTS – PEAKING GAS TURBINE**

### **C. EQUIPMENT SPECIFIC NON-FEDERALLY ENFORCEABLE REQUIREMENTS**

#### **EMISSION LIMIT REQUIREMENTS**

22. Emissions from the peaking gas turbine shall not exceed the following limits.

**[Basis: SMAQMD Rule 402]**

Pollutant	Maximum Allowable Emissions (A) Peaking Gas Turbine	
	lb/hour 3 hour average	ppmvd at 15% O2 3 hour average
Ammonia (NH3)	NA	20

(A) Excluding start-ups as defined in Condition No. 11

#### **SOURCE TESTING REQUIREMENTS**

23. An ammonia (NH3) source test of the peaking gas turbine shall be performed once every calendar year.

- A. Submit a Source Test Plan to the SMAQMD Air Pollution Control Officer for approval at least 30 days before the source test is to be performed.
- B. Notify the SMAQMD Air Pollution Control Officer at least 7 days prior to the emission testing date, if the date has changed from that approved in the Source Test Plan.
- C. During the source test, the peaking gas turbine shall be operated at the maximum firing capacity, defined as  $\geq 90\%$  of the heat input capacity achievable at the time of the source test, based on then current ambient conditions.
- D. Submit the Source Test Results Report to the SMAQMD Air Pollution Control Officer within 60 days from the completion of the source test.

**[Basis: SMAQMD Rule 201]**

## **V. EQUIPMENT SPECIFIC REQUIREMENTS – ACID RAIN PERMIT PEAKING GAS TURBINE**

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### **D. ACID RAIN PERMIT:**

The requirements specified under this subsection are issued in accordance with SMAQMD Rule 207 - TITLE V-FEDERAL OPERATING PERMIT PROGRAM, SMAQMD Rule 208 - ACID RAIN, and Titles IV and V of the federal Clean Air Act, and are enforceable by the SMAQMD, the U.S. EPA and the public.

#### **PERMIT REQUIREMENTS**

24. The designated representative of each affected source and each affected unit at the source shall:

- A. 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
- B. 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.

**[Basis: 40 CFR 72.9(a)(1)]**

25. The owners and operators of each affected source and each affected unit at the source shall:

- A. Operate the unit in compliance with a complete Acid Rain permit application or a superseding Acid Rain permit issued by the permitting authority; and
- B. Have an Acid Rain Permit.

**[Basis: 40 CFR 72.9(a)(2)]**

#### **MONITORING REQUIREMENTS**

26. 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 Parts 74, 75 and 76.

**[Basis: 40 CFR 72.9(b)(1)]**

27. 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.

**[Basis: 40 CFR 72.9(b)(2)]**

28. The sulfur content of the digester gas and total SO<sub>2</sub> emissions shall be calculated in accordance with the alternative method specified in the Acid Rain Monitoring Plan and U.S. EPA's letters dated February 17, 1999, and February 22, 1999.

**[Basis: 40 CFR 75.66(c)]**

## **V. EQUIPMENT SPECIFIC REQUIREMENTS – ACID RAIN PERMIT PEAKING GAS TURBINE**

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29. CO<sub>2</sub> emissions shall be calculated as specified in the Acid Rain Monitoring Plan and U.S. EPA's letters dated February 17, 1999, and February 22, 1999.  
**[Basis: 40 CFR 75.66(c)]**
30. The digester gas fuel flowmeters shall be calibrated as described in Section IX of the Acid Rain permit application, 40 CFR 75 Appendix D, U.S. EPA's approval of CVFA Carson's petitions for exceptions under 40 CFR 75.66(c) and U.S. EPA's letters dated February 17, 1999, and February 22, 1999.  
**[Basis: 40 CFR 75.66(c)]**
31. The requirements of 40 CFR Parts 74 and 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.  
**[Basis: 40 CFR 72.9(b)(3)]**

### **SULFUR DIOXIDE REQUIREMENTS**

32. The owners and operators of each source and each affected unit at the source shall:
- A. Hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR 73.34(c)) not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; and
  - B. Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.  
**[Basis: 40 CFR 72.9(c)(1)]**
33. 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.  
**[Basis: 40 CFR 72.9(c)(2)]**
34. An affected unit shall be subject to the requirements under 40 CFR 72.9(c)(1) as follows:
- A. Starting January 1, 2000, an affected unit under 40 CFR 72.6(a)(2); or
  - B. 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).  
**[Basis: 40 CFR 72.9(c)(3)]**
35. Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.  
**[Basis: 40 CFR 72.9(c)(4)]**
36. An allowance shall not be deducted in order to comply with the requirements of 40 CFR 72.9(c)(1)(i) prior to the calendar year for which the allowance was allocated.  
**[Basis: 40 CFR 72.9(c)(5)]**

## **V. EQUIPMENT SPECIFIC REQUIREMENTS – ACID RAIN PERMIT PEAKING GAS TURBINE**

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37. An allowance allocated by the U.S. EPA 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 the written exemption under 40 CFR 72.7 and 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.  
**[Basis: 40 CFR 72.9(c)(6)]**

38. An allowance allocated by the U.S. EPA Administrator under the Acid Rain Program does not constitute a property right.  
**[Basis: 40 CFR 72.9(c)(7)]**

### **EXCESS EMISSIONS REQUIREMENTS**

39. 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.  
**[Basis: 40 CFR 72.9(e)(1)]**

40. The owners and operators of an affected unit that has excess emissions in any calendar year shall:

A. Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR Part 77; and

B. Comply with the terms of an approved offset plan, as required by 40 CFR Part 77.  
**[Basis: 40 CFR 72.9(e)(2)]**

### **RECORDKEEPING AND REPORTING REQUIREMENTS**

41. 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 U.S. EPA Administrator or permitting authority:

A. 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;

B. All emissions monitoring information, in accordance with 40 CFR Part 75;

C. Copies of all reports, compliance certifications and other submissions and all records made or required under the Acid Rain Program; and,

## **V. EQUIPMENT SPECIFIC REQUIREMENTS – ACID RAIN PERMIT PEAKING GAS TURBINE**

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D. 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.

**[Basis: 40 CFR 72.9(f)(1)]**

42. 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.

**[Basis: 40 CFR 72.9(f)(2)]**

43. The permittee shall begin complying with the reporting requirements of 40 CFR Part 75 (as modified by the determinations and conditions described in U.S. EPA's letters dated February 17, 1999 and February 22, 1999) by the earlier of October 1, 1999, or the date and hour on which the permittee successfully completes all certification testing for its fuel flow and NOx emissions monitoring systems.

**[Basis: 40 CFR 75.66]**

### **LIABILITY REQUIREMENTS**

44. 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 a written 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.

**[Basis: 40 CFR 72.9(g)(1)]**

45. 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.

**[Basis: 40 CFR 72.9(g)(2)]**

46. 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.

**[Basis: 40 CFR 72.9(g)(3)]**

47. Each affected source and each affected unit shall meet the requirements of the Acid Rain Program.

**[40 CFR 72.9(g)(4)]**

48. 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.

**[Basis: 40 CFR 72.9(g)(5)]**

49. 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

## **V. EQUIPMENT SPECIFIC REQUIREMENTS – ACID RAIN PERMIT PEAKING GAS TURBINE**

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repowering extension plans) and 40 CFR 76.11 (NOx 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.

**[Basis: 40 CFR 72.9(g)(6)]**

50. 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.

**[Basis: 40 CFR 72.9(g)(7)]**

### **EFFECT ON OTHER AUTHORITIES**

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

- A. 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;
- B. 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;
- C. 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;
- D. Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,
- E. Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

**[Basis: 40 CFR 72.9(h)]**

**V. EQUIPMENT SPECIFIC REQUIREMENTS – COOLING TOWER**

**A. EQUIPMENT DESCRIPTION:** The information specified under this section is enforceable by the SMAQMD, U.S. EPA and the public.

The requirements specified under the following sections apply to the following equipment:

**Cooling Tower**

Permit No.: P/O 11019(rev1) (for reference purposes only - not federally enforceable)  
 Number of Cells: 3 Cells  
 Water Circulation Rate: 22,000 gallons/minute

**B. EQUIPMENT SPECIFIC FEDERALLY ENFORCEABLE REQUIREMENTS:** The requirements specified under this section are enforceable by the SMAQMD, U.S. EPA and the public.

**EMISSION LIMIT REQUIREMENTS**

1. Emissions from the cooling tower shall not exceed the following limits:  
**[Basis: SMAQMD Rule 202]**

Pollutant	Emission Factor lb/1000 gallons	Maximum Allowable Emissions (A) lb/hour 3 hour average
PM10	0.0001	0.13

(A) Based on the emission factor and 22,000 gallons/minute flowrate.

**EQUIPMENT OPERATION REQUIREMENTS**

2. The total dissolved solids content of the cooling tower circulating water shall not exceed 2000 ppmw, averaged over any consecutive three hour period.  
**[Basis: SMAQMD Rule 202]**

**MONITORING SYSTEM REQUIREMENTS**

3. The permittee shall operate a continuous monitoring system approved by the SMAQMD Air Pollution Control Officer that either, measures or calculates, and records the following.  
**[Basis: SMAQMD Rule 202]**

Parameter to be Monitored	Units
Total dissolved solids content of the cooling tower circulating water.	ppmw

## **V. EQUIPMENT SPECIFIC REQUIREMENTS – COOLING TOWER**

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### **RECORDKEEPING REQUIREMENTS**

4. The following record shall be continuously maintained on site for the most recent five year period and shall be made available to the SMAQMD Air Pollution Control Officer upon request. Quarterly and yearly records shall be made available for inspection within 30 days of the end of the reporting period.

**[Basis: SMAQMD Rule 202]**

Frequency	Information to be recorded
Hourly	A. Total dissolved solids content of the circulating water in the cooling towers in ppmw. B. Cooling tower hourly PM10 mass emission rate.
Daily	C. Cooling tower PM10 daily mass emissions. D. Total daily PM10 mass emissions from all equipment at the stationary source, excluding the standby internal combustion engine generator.
Quarterly	E. Total facility PM10 quarterly mass emissions, excluding the standby internal combustion engine generator, including the emissions from the boilers and flares at SRWTP.
Yearly	F. Total facility PM10 annual mass emissions.

### **SOURCE TESTING REQUIREMENTS**

No periodic source testing requirements

## **V. EQUIPMENT SPECIFIC REQUIREMENTS – COOLING TOWER**

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### **C. EQUIPMENT SPECIFIC NON-FEDERALLY ENFORCEABLE REQUIREMENTS**

5. The permittee shall not add any hexavalent chromium-containing compounds to the cooling tower circulating water.  
**[SMAQMD Rule 904 and Section 93103, Subchapter 7.5, Chapter 1, Part III, Title 17, California Code of Regulations]**

**V. EQUIPMENT SPECIFIC REQUIREMENTS – INTERNAL COMBUSTION ENGINE, EMERGENCY USE**

**A. EQUIPMENT DESCRIPTION:** The information specified under this section is enforceable by the SMAQMD, U.S. EPA and the public.

The requirements specified under the following section apply to the following equipment:

**IC Engine, emergency use**

Permit No.: P/O 11020(rev3) (for reference purposes only - not federally enforceable)

Manufacturer: Detroit Diesel  
 Model No. 12V-92TA  
 Serial No. 12VF009718  
 Engine BHP: 830 bhp  
 Fuel Type: CARB diesel  
 Use: Emergency electrical generator

**B. EQUIPMENT SPECIFIC FEDERALLY ENFORCEABLE REQUIREMENTS:** The requirements specified under this section are enforceable by the SMAQMD, U.S. EPA and the public.

**EMISSIONS LIMIT REQUIREMENTS**

1. Emissions from the emergency use IC engine shall not exceed the following limits.  
**[Basis: SMAQMD Rule 202]**

Pollutant	Emission Factor grams/hp-hour	Maximum Allowable Emissions (F)		
		lb/hour	lb/quarter	lb/year
ROC	0.481 (A)	0.88	176	176
NOx	10.504 (B)	19.22	3844	3844
SO2	0.005 (C)	0.01	2	2
PM10	0.32 (D)	0.58	116	116
CO	5.328 (E)	9.75	1950	1950

- (A) The emission factor for ROC is based on manufacturer's data and is increased by 11% for each degree of fuel injection timing retardation.
- (B) The emission factor for NOx is based on manufacturer's data and is reduced by 5% for each degree of fuel injection timing retardation.
- (C) The emission factor for SO2 is based on 0.0015% sulfur by weight in the fuel.
- (D) The emission factor for PM10 is based on U.S. EPA AP-42
- (E) The emission factor for CO is based on manufacturer's data and is increased by 10% for each degree of fuel injection timing retardation.
- (F) Mass emissions are based on 830 bhp, 200 hours/quarter and 200 hours/year of operation.

**V. EQUIPMENT SPECIFIC REQUIREMENTS – INTERNAL COMBUSTION ENGINE, EMERGENCY USE**

2. Emissions of CO from the following equipment shall not exceed the following limits.  
**[Basis: SMAQMD Rule 202]**

Pollutant	Maximum Allowable Daily Emissions		
	Peaking Gas Turbine lb/day	Combined Cycle Gas Turbine and Duct Burner lb/day	Total lb/day
CO	142.3	547.0	547.0 (A)

- (A) The total daily CO emissions limit of 547 lb/day applies to all equipment at the CVFA Carson facility, including CO emissions from the emergency use IC engine.  
 (B) Daily CO emissions shall be calculated as follows:
1. For the combined cycle gas turbine, duct burner and peaking gas turbine, CO emission rates shall be determined based on CEMS data.
  2. For the emergency use IC engine, CO emission rates shall be calculated and recorded for any IC engine operating day based on actual IC engine operating time (in hours), multiplied by the emergency use IC engine CO emission rate of 9.75 lb/hr.

3. Emissions of CO from all equipment at the CVFA Carson facility, including the emergency use IC engine, shall be less than the following limits.  
**[Basis: SMAQMD Rule 202]**

Pollutant	Maximum Allowable Annual Emissions All Equipment at the CVFA Carson Facility Including the Emergency Use IC Engine lb/year
CO	200,000 (A)

(A) For CO emissions, lb/year shall be defined as any consecutive 12 month period.

**EQUIPMENT OPERATION REQUIREMENTS**

4. The emergency use IC engine shall operate only for the following purposes and shall not operate more than the following hours:  
**[Basis: SMAQMD Rule 202]**

Type of Operational Hours	Maximum Allowable Operation	
	hours/quarter	hours/year

**V. EQUIPMENT SPECIFIC REQUIREMENTS – INTERNAL COMBUSTION  
ENGINE, EMERGENCY USE**

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Maintenance purposes (A)	30	30
All operation - maintenance and emergency (B)	200	200

(A) Maintenance purposes is defined as: The operation of an IC engine in order to preserve the integrity of the IC engine, its associated generator or the facility's electrical distribution system or when required by the SMAQMD to verify compliance with the applicable SMAQMD rules and regulations.

(B) Emergency is defined as: when electrical service from the serving utility is interrupted by an unforeseeable event.

5. The emergency use IC engine shall be equipped with a non-resettable hour meter with a minimum display capability of 999 hours to ensure compliance with Condition Nos. 1, 2, 3 and 4.

**[Basis: SMAQMD Rule 202]**

6. Upon request of the SMAQMD Air Pollution Control Officer, once each year during daylight hours, the emergency use IC engine shall be run under load for observation of compliance with opacity limitations.

**[Basis: SMAQMD Rule 202]**

7. The fuel injection timing of the emergency use IC engine shall be maintained retarded 4 degrees relative to the manufacturer's recommended standard timing.

**[Basis: SMAQMD Rule 202]**

8. The IC engine shall be fueled with:

A. CARB diesel fuel, or

B. An alternative diesel fuel that meets the requirements of the Verification Procedure (as codified in Title 13, CCR, Sections 2700-2710), or

C. An alternative fuel, or

D. CARB diesel fuel used with fuel additives that meets the requirements of the Verification Procedure, or

E. Any combination of fuels listed in this condition.

**[Basis: SMAQMD Rule 202]**

**V. EQUIPMENT SPECIFIC REQUIREMENTS – INTERNAL COMBUSTION ENGINE, EMERGENCY USE**

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**RECORDKEEPING REQUIREMENTS**

9. The following record shall be continuously maintained on site for the most recent five year period and shall be made available to the SMAQMD Air Pollution Control Officer upon request. Quarterly and yearly records shall be made available for inspection within 30 days of the end of the reporting period.

**[Basis: SMAQMD Rule 202]**

Frequency	Information to be Recorded
When receiving fuel	A. Retain fuel purchase records that account for all fuel purchased for use in the IC engine. Fuel purchase records shall include: <ul style="list-style-type: none"> <li>i. Identification of type of fuel (i.e. CARB diesel, alternate diesel, etc.)</li> <li>ii. Quantity of fuel purchased.</li> <li>iii. Date of fuel purchase.</li> <li>iv. Signature of person receiving fuel.</li> <li>v. Signature of fuel provider indicating that fuel was delivered.</li> </ul>
When operated	B. Date. C. Purpose - either maintenance (M) or emergency use (E). D. Number of hours of operation.
Monthly	E. Total number of hours of operation for each operating mode (hours/month).
Quarterly	F. Total number of hours of operation for each operating mode (hours/quarter).
Yearly	G. Total number of hours of operation for each operating mode (hours/year).

**V. EQUIPMENT SPECIFIC REQUIREMENTS – INTERNAL COMBUSTION  
ENGINE, EMERGENCY USE**

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**SOURCE TESTING REQUIREMENTS**

No periodic source testing requirements

## VI. INSIGNIFICANT EMISSIONS UNITS

The following systems are considered insignificant emissions units and are not subject to equipment specific requirements. However, these emissions units are required to comply with all applicable general requirements:

<b>Miscellaneous Exempt Equipment</b>	
Equipment	Basis for Exemption
Vehicles	SMAQMD Rule 201, Section 111.1 Vehicles used to transport passengers or freight.
Diesel Storage Tank	SMAQMD Rule 201, Section 117 Vapor pressure $\leq$ 5 mm Hg or initial boiling point $\geq$ 150 °C.
Anhydrous Ammonia Storage Tank	SMAQMD Rule 201, Section 117.1 Storage of liquefied or compressed gases.
Sulfuric Acid Storage Tank	SMAQMD Rule 201 Section Emissions < 2 lb/day without air pollution control device.
Gas Turbine Lube Oil Tank	SMAQMD Rule 201, Section 117 Vapor pressure $\leq$ 5 mm Hg or initial boiling point $\geq$ 150 °C.
Steam Turbine Lube Oil Tank	SMAQMD Rule 201, Section 117 Vapor pressure $\leq$ 5 mm Hg or initial boiling point $\geq$ 150 °C.
Hydraulic Oil Storage Tanks	SMAQMD Rule 201, Section 117 Vapor pressure $\leq$ 5 mm Hg or initial boiling point $\geq$ 150 °C.
Waste Lube Oil Storage Tank	SMAQMD Rule 201, Section 117 Vapor pressure $\leq$ 5 mm Hg or initial boiling point $\geq$ 150 °C.
Portable Water Sprayer	SMAQMD Rule 201, Section 112.1 IC engine rated $\leq$ 50 hp.
Building Air Conditioning Systems	SMAQMD Rule 201, Section 115 Air conditioning systems
Small Painting Operations	SMAQMD Rule 201, Section 118.2 Use of less than 1 gallon/day
Cold Solvent Degreasing	SMAQMD Rule 201, Section 118.3 $\leq$ 100 gallon tank capacity, non-halogenated solvent.
Fugitive emissions associated with plant piping systems for fuel gas, fuel oil, lube oil and anhydrous ammonia	SMAQMD Rule 201 Section Emissions < 2 lb/day without air pollution control device.

## **VII. ACRONYMS, ABBREVIATIONS AND UNITS OF MEASURE**

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Acronyms, abbreviations and units of measure used in this permit are defined as follows:

**ASTM**

American Society for Testing and Materials

**BACT**

Best Available Control Technology.

**CAA**

The federal Clean Air Act.

**CARB**

California Air Resources Board.

**CFC**

Chloro-fluoro-carbons. A class of compounds responsible for destroying ozone in the upper atmosphere.

**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.

**CO<sub>2</sub>**

Carbon dioxide.

**ERC**

Emission reduction credit.

**Federally Enforceable**

All limitations and conditions which are enforceable by the Administrator of the U.S. 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 a U.S. EPA approved program that has been incorporated into the California SIP.

**NESHAP**

National Emission Standards for Hazardous Air Pollutants (see 40 CFR Parts 61 and 63).

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

Nitrogen oxides.

## **VII. ACRONYMS, ABBREVIATIONS AND UNITS OF MEASURE (continued)**

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### **NSPS**

New Source Performance Standards. U.S. EPA 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 SMAQMD Regulation 8.

### **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 SMAQMD Rule 202. (Note: There are additional NSR requirements mandated by the California Clean Air Act.)

### **O<sub>2</sub>**

Oxygen.

### **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 ROC, NO<sub>x</sub>, SO<sub>2</sub> and PM<sub>10</sub>.

### **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 SMAQMD is classified "attainment" of the National Air Ambient Quality Standards. Mandated by Title I of the federal Clean Air Act and implemented by 40 CFR Part 52.

### **ROC**

Reactive organic compounds.

### **SIP**

State Implementation Plan. CARB and SMAQMD programs and regulations approved by U.S. EPA and developed in order to attain the National Air Ambient Quality Standards. Mandated by Title I of the federal Clean Air Act.

### **SMAQMD**

Sacramento Metropolitan Air Quality Management District.

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

Sulfur dioxide.

## **VII. ACRONYMS, ABBREVIATIONS AND UNITS OF MEASURE (continued)**

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### **Title V**

Title V of the federal Clean Air Act. Title V requires the SMAQMD to operate a federally enforceable operating permit program for major stationary sources and other specified sources.

### **TSP**

Total suspended particulate.

### **U.S. EPA**

The federal Environmental Protection Agency.

### **VOC**

Volatile Organic Compounds.

### **UNITS OF MEASURE**

BTU	=	British Thermal Unit
cfm	=	cubic feet per minute
cm	=	centimeter
g	=	grams
gal	=	gallon
gpm	=	gallons per minute
hp	=	horsepower
hr	=	hour
lb	=	pound
in	=	inch
kg	=	kilogram
max	=	maximum
m <sup>2</sup>	=	square meter
min	=	minute
mm	=	millimeter
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
quarter	=	calendar quarter
RVP	=	Reid vapor pressure
scfm	=	standard cubic feet per minute
yr	=	year