



**MAR 15 2011**

Mark Kehoe  
GWF Energy, LLC  
4300 Railroad Avenue  
Pittsburg, CA 94565-6006

**Re: Notice of Preliminary Decision - Title V Permit Renewal  
District Facility # C-4140  
Project # C-1073950**

Dear Mr. Kehoe:

Enclosed for your review and comment is the District's analysis of the application to renew the Federally Mandated Operating Permit for GWF Energy, LLC for its Power Plant at 10596 Idaho Avenue, Hanford, in Kings County, California.

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. Please submit your written comments on this project within the 30-day comment period which begins on the date of publication of the public notice.

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900.

Sincerely,

David Warner  
Director of Permit Services

Attachments

C: Gurpreet Brar, Permit Services Engineer

**Seyed Sadredin**  
Executive Director/Air Pollution Control Officer

---

**Northern Region**  
4800 Enterprise Way  
Modesto, CA 95356-8718  
Tel: (209) 557-6400 FAX: (209) 557-6475

**Central Region (Main Office)**  
1990 E. Gettysburg Avenue  
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**MAR 15 2011**

Gerardo C. Rios, Chief  
Permits Office (AIR-3)  
U.S. EPA - Region IX  
75 Hawthorne St.  
San Francisco, CA 94105

**Re: Notice of Preliminary Decision – Title V Permit Renewal  
District Facility # C-4140  
Project # C-1073950**

Dear Mr. Rios:

Enclosed for your review and comment is the District's analysis of the application to renew the Federally Mandated Operating Permit for GWF Energy, LLC for its Power Plant at 10596 Idaho Avenue, Hanford, in Kings County, California.

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. Please submit your written comments on this project within the 45-day comment period which begins on the date of publication of the public notice.

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900.

Sincerely,

David Warner  
Director of Permit Services

Attachments

C: Gurpreet Brar, Permit Services Engineer

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**MAR 15 2011**

Mike Tollstrup, Chief  
Project Assessment Branch  
Air Resources Board  
P O Box 2815  
Sacramento, CA 95812-2815

**Re: Notice of Preliminary Decision - Title V Permit Renewal  
District Facility # C-4140  
Project # C-1073950**

Dear Mr. Tollstrup:

Enclosed for your review and comment is the District's analysis of the application to renew the Federally Mandated Operating Permit for GWF Energy, LLC for its Power Plant at 10596 Idaho Avenue, Hanford, in Kings County, California.

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. Please submit your written comments on this project within the 30-day comment period which begins on the date of publication of the public notice.

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900.

Sincerely,



David Warner  
Director of Permit Services

**Attachments**

C: Gurpreet Brar, Permit Services Engineer

**Seyed Sadredin**  
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Hanford Sentinel

**NOTICE OF PRELIMINARY DECISION  
FOR THE PROPOSED RENEWAL OF  
THE FEDERALLY MANDATED OPERATING PERMIT**

NOTICE IS HEREBY GIVEN that the San Joaquin Valley Air Pollution Control District solicits public comment on the proposed renewal of the Federally Mandated Operating Permit to GWF Energy, LLC for its Power Plant at 10596 Idaho Avenue, Hanford, in Kings County, California.

The District's analysis of the legal and factual basis for this proposed action, project #C-1073950, is available for public inspection at [http://www.valleyair.org/notices/public\\_notices\\_idx.htm](http://www.valleyair.org/notices/public_notices_idx.htm) and the District office at the address below. There are no emission changes associated with this proposed action. This will be the public's only opportunity to comment on the specific conditions of the proposed renewal of the Federally Mandated Operating permit. If requested by the public, the District will hold a public hearing regarding issuance of this renewed permit. For additional information, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900. Written comments on the proposed renewed permit must be submitted within 30 days of the publication date of this notice to DAVID WARNER, DIRECTOR OF PERMIT SERVICES, SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT, 1990 E. GETTYSBURG AVE, FRESNO, CALIFORNIA 93726-0244.

# SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT

Proposed Title V Permit Renewal Evaluation  
GWF Energy, LLC  
C-4140

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**TITLE V PERMIT RENEWAL EVALUATION**  
**Power Plant**

**Engineer:** Gurpreet Brar  
**Date:** November 3, 2010

**Facility Number:** C-4140  
**Facility Name:** GWF Energy, LLC  
**Mailing Address:** 4300 Railroad Avenue  
Pittsburg, CA 94565-6006

**Contact Name:** Mark Kehoe  
**Phone:** (925) 431-1440

**Responsible Official:** Mark Kehoe  
**Title:** Director of Environmental and Safety Programs

**Project # :** C-1073950  
**Deemed Complete:** October 29, 2007

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**I. PROPOSAL**

GWF Energy, LLC was issued a Title V permit on January 31, 2004. As required by District Rule 2520, the applicant is requesting a permit renewal. The existing Title V permit shall be reviewed and modified to reflect all applicable District and federal rules updated, removed, or added since the issuance of the initial Title V permit.

The purpose of this evaluation is to provide the legal and factual basis for all updated applicable requirements and to determine if the facility will comply with these updated requirements. It also specifically identifies all additions, deletions, and/or changes made to permit conditions or equipment descriptions.

## II. FACILITY LOCATION

GWF Energy, LLC is located at 10596 Idaho Avenue, Hanford, in Kings County, California.

## III. EQUIPMENT LISTING

A detailed facility printout listing all permitted equipment at the facility is included as Attachment C.

## IV. GENERAL PERMIT TEMPLATE USAGE

The applicant does not propose to use any model general permit templates.

## V. SCOPE OF EPA AND PUBLIC REVIEW

The applicant is not requesting any model general permit templates. Therefore, all federally enforceable conditions in this current Title V permit will be subject to EPA and public review.

## VI. FEDERALLY ENFORCEABLE REQUIREMENTS

### A. Rules Updated

- District Rule 2020, Exemptions  
(amended December 19, 2002 ⇒ amended December 20, 2007)
- District Rule 2201, New and Modified Stationary Source Review Rule  
(amended September 21, 2006 ⇒ amended December 18, 2008)
- District Rule 4101, Visible Emissions  
(amended November 15, 2001 ⇒ amended February 17, 2005)

- District Rule 4601, Architectural Coatings  
(amended October 31, 2001 ⇒ amended December 17, 2009)
- District Rule 4703, Stationary Gas Turbines  
(amended April 25, 2002 ⇒ amended September 20, 2007)
- District Rule 8011, General Requirements  
(adopted November 15, 2001 ⇒ amended August 19, 2004)
- District Rule 8021, Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities  
(adopted November 15, 2001 ⇒ amended August 19, 2004)
- District Rule 8031, Bulk Materials  
(adopted November 15, 2001 ⇒ amended August 19, 2004)
- District Rule 8041, Carryout and Trackout  
(adopted November 15, 2001 ⇒ amended August 19, 2004)
- District Rule 8051, Open Areas  
(adopted November 15, 2001 ⇒ amended August 19, 2004)
- District Rule 8061, Paved and Unpaved Roads  
(adopted November 15, 2001 ⇒ amended August 19, 2004)
- District Rule 8071, Unpaved Vehicle/Equipment Traffic Areas  
(adopted November 15, 2001 ⇒ amended September 16, 2004)
- 40 CFR Part 61, Subpart M, National Emission Standard for Asbestos  
(amended July 20, 2004)
- 40 CFR Part 82, Subpart B and F, Stratospheric Ozone
- 40 CFR Part 60, Subpart GG, New Source Performance Standards; Standard of Performance for Stationary Gas Turbine

## **B. Rules Removed**

None



### **C. Rules Added**

Following rules are that are applicable to operation of this facility has been adopted since issuance of the initial Title V permit.

- 40 CFR 60 Subpart KKKK - Standards of Performance for Stationary Combustion Turbines
- 40 CFR Part 63, Subpart YYYY, National Emissions Standards for Hazardous Air Pollutants for Stationary Combustion Turbines (amended April 20, 2008)

### **D. Rules Not Updated**

- District Rule 1080, Stack Monitoring (amended December 17, 1992)
- District Rule 1081, Source Sampling (amended December 16, 1993)
- District Rule 1100, Equipment Breakdown (Non-SIP replacement for Kern County Rule 111) (amended December 17, 1992)
- District Rule 1160, Emission Statements (adopted November 18, 1992)
- District Rule 2010, Permits Required (amended December 17, 1992)
- District Rule 2031, Transfer of Permits (amended December 17, 1992)
- District Rule 2040, Applications (amended December 17, 1992)
- District Rule 2070, Standards for Granting Applications (amended December 17, 1992)
- District Rule 2080, Conditional Approval (amended December 17, 1992)
- District Rule 2520, Federally Mandated Operating Permits (amended June 21, 2001)

- District Rule 4001, New Source Performance Standards (amended April 14, 1999)
- District Rule 4002, National Emission Standards for Hazardous Air Pollutants (amended May 20, 2004)
- District Rule 4201, Particulate Matter Concentration (amended December 17, 1992)
- District Rule 4801, Sulfur Compounds (Non-SIP replacement for Kern County Rule 108.1) (amended December 17, 1992)
- 40 CFR Part 60, Subpart A, Monitoring Requirements
- 40 CFR Part 64, Compliance Assurance Monitoring
- 40 CFR Part 72, Permits Regulation
- 40 CFR Part 73, Sulfur Dioxide Allowance System
- 40 CFR Part 75, Continuous Emission Monitoring
- 40 CFR Part 77, Excess Emissions

## VII. REQUIREMENTS NOT FEDERALLY ENFORCEABLE

For each Title V source, the District issues a single permit that contains the Federally Enforceable requirements, as well as the District-only requirements. The District-only requirements are not a part of the Title V Operating Permits.

The terms and conditions that are part of the facility's Title V permit are designated as "Federally Enforceable Through Title V Permit".

For this facility, the following are not federally enforceable and will not be discussed in further detail:

### A. Rules Added

None

## **Rules Not Updated**

District Rule 4102, Nuisance (as amended December 17, 1992)

Compliance with the emission requirements of this rule is demonstrated with the permit conditions listed in the table below.

- Condition 1 on facility wide permit C-4140-0-1 assures compliance with the requirements of this rule.
- Condition 24 on the revised permits C-4140-1-4 & -2-4 will ensure compliance with the requirements of this rule.

## **VIII. PERMIT REQUIREMENTS**

The purpose of this evaluation is to review changes to federally enforceable requirements; therefore, this compliance section will only address rules that have been amended or added since the issuance of the initial Title V permit.

### **A. District Rule 2020 - Exemptions**

District Rule 2020 lists equipment which are specifically exempt from obtaining permits and specifies recordkeeping requirements to verify such exemptions. The amendments to this rule do not have any affect on current permit requirements and will therefore not be addressed in this evaluation.

### **B. District Rule 2201 - New and Modified Stationary Source Review Rule**

District Rule 2201 has been amended since this facility's initial Title V permit was issued. This Title V permit renewal does not constitute a modification per section 3.24.1, defined as an action including at least one of the following items:

- 1) Any change in hours of operation, production rate, or method of operation of an existing emissions unit, which would necessitate a change in permit conditions.
- 2) Any structural change or addition to an existing emissions unit which would necessitate a change in permit conditions. Routine replacement shall not be considered to be a structural change.
- 3) An increase in emissions from an emissions unit caused by a modification of the Stationary Source when the emissions unit is not subject to a daily emissions limitation.

- 4) Addition of any new emissions unit which is subject to District permitting requirements.
- 5) A change in a permit term or condition proposed by an applicant to obtain an exemption from an applicable requirement to which the source would otherwise be subject.

Therefore, the updated requirements of this rule are not applicable to the permits being renewed as a part of this project.

**C. District Rule 2520 - Federally Mandated Operating**

There are no federally applicable Greenhouse Gas (GHG) requirements for this source. It should be noted that the Mandatory Greenhouse Gas Reporting rule (40CFR Part 98) is not included in the definition of an applicable requirement within Title V (per 40CFR 71.2). Therefore, there will be no further discussion of GHG in this evaluation.

**D. District Rule 4101 - Visible Emissions**

Section 5.0 prohibits the discharge of any air contaminant for a period or periods aggregating more than 3 minutes in any one hour which is as dark or darker in shade as that designated as No. 1 on the Ringelmann Chart; or is of such opacity as to obscure an observer's view to a degree equal to or greater than the smoke described in Section 5.1 of Rule 4101.

- Condition 23 on facility wide permit C-4140-0-1 assures compliance with the requirements of this rule.

**E. District Rule 4601 – Architectural Coatings**

This rule limits the emissions of VOC's from architectural coatings. It requires limiting the application of any architectural coating to no more than what is listed in the Table of Standards (Section 5.0). This rule further specifies labeling requirements, coatings thinning recommendations, and storage requirements.

The rule was amended in February 17, 2005 but had not been SIP approved. The stringency analysis in Attachment D shows that the amended rule is as stringent as the SIP approved version of the rule that was adopted in October 31, 2001.

The following changes were included in the latest rule amendment that resulted in revising current permit requirements:

- The tables outlining the VOC content of different specialty coatings has been largely replaced with the Table of Standards in Section 5.0.
- New labeling, reporting, test methodology and other requirements have been incorporated into the rule in order to allow ARB to administer the Averaging Program as detailed in Section 8.0.
- Conditions 24, 25 and 26 of the facility wide requirements C-4140-0-1 will assure compliance with the requirements of this rule.

**F. District Rule 4703 – Stationary Gas Turbines**

Section 2.0 of this rule states that the provisions of this rule apply to all stationary gas turbine systems, which are subject to District permitting requirements, and with ratings equal to or greater than 0.3 megawatt (MW) or a maximum heat input rating of more than 3,000,000 Btu per hour, except as provided in Section 4.0.

All of the District Rule 4703 requirements on the existing permits C-4140-1-3 & -2-3 have been removed and updated in accordance with the latest rule amendments and have been included on the proposed permits C-4140-1-4 & -2-4 as discussed below.

Section 5.1.2, Table 5-2, Tier 2 NO<sub>x</sub> Compliance Limits, requires the owner or operator to achieve less than or equal to 5 ppmvd NO<sub>x</sub> @ 15% O<sub>2</sub> to meet Tier-2 compliance schedule listed in Section 7.2.

<b>Tier 2 NO<sub>x</sub> Compliance Limits</b>			
Turbine Classification Rating	Compliance Option (see Section 7.2)	NO <sub>x</sub> Compliance Limit, ppmvd at 15% O <sub>2</sub>	
		Gas Fuel	Liquid Fuel
e) Greater than 10 MW, Simple cycle, and permit condition for greater than 877 hrs/yr operation	Standard	5	25

The turbines in this project are 47.5 MW with simple cycle; therefore it is subject to limit e) Greater than 10 MW, simple cycle, and permit condition for greater than 877 hrs/yr operation.

- Condition 22 & 33 on the revised permit C-4140-1-4 & -2-4 will ensure compliance with the requirements of this section.

Section 5.2, Table 5-4, CO Compliance Limits, requires the owner or operator to operate and maintain the gas turbine such that CO emissions must be less than 200 ppmvd @ 15% O<sub>2</sub>. Rule 4703 does not include a specific averaging period requirement for demonstrating compliance with the CO emission limit. The District practice is to require CO emissions compliance demonstration on 3-hour rolling average period.

- Condition 22 & 34 on the revised permits C-4140-1-4 & -2-4 will ensure compliance with the requirements of this section.

NO<sub>x</sub> and CO emission limits of Section 5.1 and Section 5.2 shall not apply during a transitional operation period, which includes bypass transition period, as defined in Section 3.0, provided an operator complies with the applicable requirements specified in Sections 5.3.1 and 5.3.2.

Section 5.3.1 requires the an operator to meet the following conditions:

- The duration of each startup or each shutdown shall not exceed two hours.
- For each bypass transition period, the requirements specified in Section 3.2 shall be met.
- For each primary re-ignition period, the requirements specified in Section 3.20 shall be met<sup>1</sup>.
- Each reduced load period shall not exceed one hour.

The facility has demonstrated compliance with the two hour startup and shutdown duration requirements.

- Condition 17, 19 & 20 on the revised permits C-4140-1-4 & -2-4 will ensure compliance with the requirements of this section.

Section 5.3.2 requires the emission control system to be in operation and emissions shall be minimized insofar as technologically feasible during each transitional operation period.

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<sup>1</sup> This requirement is applicable to a gas turbine with dry low-NO<sub>x</sub> combustors. Each turbine under this project is equipped with water injection system. Thus, this requirement is not applicable to these units.

- Condition 21 on the revised permits C-4140-1-4 & -2-4 will ensure compliance with the requirements of this section.

Section 6.2.1 requires the owner to operate and maintain continuous emissions monitoring equipment for NO<sub>x</sub> and oxygen, or install and maintain APCO-approved alternate monitoring. The facility operates continuous emissions monitoring system which continuously measures and records the exhaust gas NO<sub>x</sub> and oxygen concentrations.

- Condition 7 on the proposed permit C-4140-1-4 & -2-4 will ensure compliance with the requirements of this section.

Section 6.2.2 specifies monitoring requirements for turbines without exhaust-gas NO<sub>x</sub> control devices. For turbines without exhaust-gas NO<sub>x</sub> control devices and without continuous emissions monitoring equipment, the owner or operator shall monitor operational characteristics recommended by the turbine manufacturer or emission control system supplier, and approved by the APCO. The facility operates continuous emissions monitoring system, therefore, this section is not applicable.

Section 6.2.4 requires the facility to maintain all records for a period of five years from the date of data entry and shall make such records available to the APCO upon request.

- Condition 10 on the proposed facility-wide permit C-4140-0-1 will ensure compliance with the requirements of this section.

Section 6.2.5 requires that the owner or operator submit to the APCO, before issuance of the Permit to Operate, information correlating the control system operating to the associated measure NO<sub>x</sub> output. Since these units are currently permitted, this information has previously been collected and no further information is needed.

Section 6.2.6 requires the facility to maintain a stationary gas turbine system operating log that includes, on a daily basis, the actual local startup and stop time, length and reason for reduced load periods, total hours of operation, and the type and quantity of fuel used. The facility will be required to maintain a log in accordance with the requirements of this section.

- Condition 45 on the revised permit C-4140-1-4 & -2-4 will ensure compliance with the requirements of this section.

Section 6.2.8 requires the owners or operators performing startups or shutdowns to keep records of the duration of each startup and shutdown.

- Condition 46 on the revised permit C-4140-1-4 & -2-4 will ensure compliance with the requirements of this section.

Section 6.2.11 requires that the operator of a unit shall keep records of the date, time and duration of each bypass transition period and each primary re-ignition period.

- Condition 47 on the revised permit C-4140-1-4 & -2-4 will ensure compliance with the requirements of this section.

Section 6.3.1 states that the owner or operator of any stationary gas turbine system subject to the provisions of Section 5.0 of this rule shall provide source test information annually regarding the exhaust gas NO<sub>x</sub> and CO concentrations. The gas turbine is required to be tested annually to ensure compliance with NO<sub>x</sub> and CO concentrations.

- Condition 31 on the revised permit C-4140-1-4 & -2-4 will ensure compliance with the requirements of this section.

Section 6.3.2 specifies source testing requirements for units operating less than 877 hours per year. The turbine at this facility will be allowed to operate in excess of 877 hours per year. Therefore, the requirements of this section are not applicable and no further discussion is required.

Section 6.3.3 states that units with intermittently operated auxiliary burners shall demonstrate compliance with the auxiliary burner in both "on" and "off" configurations. Therefore, the requirements of this section are not applicable and no further discussion is required.

Section 6.4 states that the facility must demonstrate compliance annually with the NO<sub>x</sub> and CO emission limits using the following test methods, unless otherwise approved by the APCO and EPA:

- Oxides of nitrogen emissions for compliance tests shall be determined by using EPA Method 7E or EPA Method 20.
- Carbon monoxide emissions for compliance tests shall be determined by using EPA Test Methods 10 or 10B.



- Oxygen content of the exhaust gas shall be determined by using EPA Methods 3, 3A, or 20.
- HHV and LHV of gaseous fuels shall be determined by using ASTM D3588-91, ASTM 1826-88, or ASTM 1945-81.
- Condition 30, 31 & 35 on the revised permit C-4140-1-4 & -2-4 will ensure compliance with the requirements of this section.

The District has determined that the facility is operating in compliance with the requirements of this rule, therefore, no further discussion is required.

### **G. District Rule 8011, General Requirements**

The purpose of Regulation VIII (Fugitive PM<sub>10</sub> Prohibitions) is to reduce ambient concentrations of fine particulate matter (PM<sub>10</sub>) by requiring actions to prevent, reduce or mitigate anthropogenic fugitive dust emissions. The Rules contained in this Regulation have been developed pursuant to United States Environmental Protection Agency guidance for Serious PM<sub>10</sub> Nonattainment Areas. These rules are applicable to specified anthropogenic fugitive dust sources. Fugitive dust contains PM<sub>10</sub> and particles larger than PM<sub>10</sub>. Controlling fugitive dust emissions when visible emissions are detected will not prevent all PM<sub>10</sub> emissions, but will substantially reduce PM<sub>10</sub> emissions.

The provisions of this rule are applicable to specified outdoor fugitive dust sources. The definitions, exemptions, requirements, administrative requirements, recordkeeping requirements, and test methods set forth in this rule are applicable to all Rules under Regulation VIII (Fugitive PM<sub>10</sub> Prohibitions) of the Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District.

- Conditions 30 through 35 of the facility-wide requirements C-4140-0-1 will ensure compliance with these requirements.

**H. District Rule 8021, Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities**

The purpose of this rule is to limit fugitive dust emissions from construction, demolition, excavation, extraction, and other earthmoving activities.

This rule applies to any construction, demolition, excavation, extraction, and other earthmoving activities, including, but not limited to, land clearing, grubbing, scraping, travel on site, and travel on access roads to and from the site. This rule also applies to the construction of new landfill disposal sites or modification to existing landfill disposal sites prior to commencement of landfilling activities.

Section 5.0 requires that no person shall perform any construction, demolition, excavation, extraction, or other earthmoving activities unless the appropriate requirements in sections 5.1 and 5.2 are sufficiently implemented to limit VDE to 20% opacity. In addition to the requirements of this rule, a person shall comply with all other applicable requirements of Regulation VIII.

- Condition 30 of the facility-wide requirements C-4140-0-1 will ensure compliance with these requirements.

**I. District Rule 8031, Bulk Materials**

The purpose of this rule is to limit fugitive dust emissions from the outdoor handling, storage, and transport of bulk materials.

This rule applies to the outdoor handling, storage, and transport of any bulk material.

Section 5.0 requires that no person shall perform any outdoor handling, storage, and transport of bulk materials unless the appropriate requirements in Table 8031-1 of this rule are sufficiently implemented to limit VDE to 20% opacity or to comply with the conditions for a stabilized surface as defined in Rule 8011. In addition to the requirements of this rule, a person shall comply with all other applicable requirements of Regulation VIII.

- Condition 31 of the facility-wide requirements C-4140-0-1 will ensure compliance with these requirements.

**J. District Rule 8041, Carryout and Trackout**

The purpose of this rule is to limit fugitive dust emissions from carryout and trackout.

This rule applies to all sites that are subject to Rules 8021 (Construction, Demolition, Excavation, Extraction, and other Earthmoving Activities), 8031 (Bulk Materials), and 8071 (Unpaved Vehicle and Equipment Traffic Areas) where carryout or trackout has occurred or may occur.

Section 5.0 requires that an owner/operator shall sufficiently prevent or cleanup carryout and trackout as specified in sections 5.1 through 5.8. In addition to the requirements of this rule, a person shall comply with all other applicable requirements of Regulation VIII. The use of blower devices, or dry rotary brushes or brooms, for removal of carryout and trackout on public roads is expressly prohibited. The removal of carryout and trackout from paved public roads does not exempt an owner/operator from obtaining state or local agency permits which may be required for the cleanup of mud and dirt on paved public roads.

- Condition 32 of the facility-wide requirements C-4140-0-1 will ensure compliance with these requirements.

**K. District Rule 8051, Open Areas**

The purpose of this rule is to limit fugitive dust emissions from open areas.

This rule applies to any open area having 3.0 acres or more of disturbed surface area, that has remained undeveloped, unoccupied, unused, or vacant for more than seven days.

Section 5.0 requires that whenever open areas are disturbed or vehicles are used in open areas, the owner/operator shall implement one or a combination of control measures indicated in Table 8051-1 to comply with the conditions of a stabilized surface at all times and to limit VDE to 20% opacity. In addition to the requirements of this rule, a person shall comply with all other applicable requirements of Regulation VIII.

- Condition 33 of the facility-wide requirements C-4140-0-1 will ensure compliance with these requirements.

**L. District Rule 8061, Paved and Unpaved Roads**

The purpose of this rule is to limit fugitive dust emissions from paved and unpaved roads by implementing control measures and design criteria.

This rule applies to any new or existing public or private paved or unpaved road, road construction project, or road modification project.

- Condition 34 of the facility-wide requirements C-4140-0-1 will ensure compliance with these requirements.

**M. District Rule 8071, Unpaved Vehicle/Equipment Traffic Area**

The purpose of this rule is to limit fugitive dust emissions from unpaved vehicle and equipment traffic areas by implementing control measures and design criteria.

This rule applies to any unpaved vehicle/equipment traffic area of 1.0 acre or larger.

- Condition 35 of the facility-wide requirements C-4140-0-1 will ensure compliance with these requirements.

**N. 40 CFR Part 60, Subpart GG – Standards of Performance for Stationary Gas Turbines**

The provisions of this subpart are applicable to all stationary gas turbines with a heat input at peak load equal to or greater than 10 million Btu per hour. Section 60.334 and 60.335 of this Subpart was amended February 24, 2006.

The amended provisions, 40 CFR 60.334(c), (e), and (f) clarify that the monitoring methods are options rather than requirements for turbines that do not use water or steam to control NO<sub>x</sub> emissions. In addition, the introductory text of 46 CFR 60.334(j), 60.334(j)(1)(iv), and 40 CFR 60.335(b)(8) were also revised to reflect the amended provisions of 40 CFR 60.334(c), (e), and (f). Since these permit units use water/steam injection to control NO<sub>x</sub> emissions, the amended provisions are not applicable to these gas turbines.

- Condition 10, 14, 15, 31 and 35 on the proposed permits C-4140-1-4 & -2-4 will ensure compliance with this Subpart.

**O. 40 CFR Part 61, Subpart M, National Emission Standard for Asbestos**

These regulations apply to demolition or renovation activity, as defined in 40 CFR 61.141. 40 CFR Section 61.150 of this Subpart was amended September 18, 2003, and condition 36 of C-4140-0-1 assures compliance with the requirements.

**P. 40 CFR 60, Subpart KKKK, Standards of Performance for Stationary Combustion Turbines**

This subpart establishes emission standards and compliance schedules for the control of emissions from stationary combustion turbines that commenced construction, modification or reconstruction after February 18, 2005.

This permit units are not subject to this subpart since the permit units have not undergone construction, modification or reconstruction after the February 18, 2005.

**Q. 40 CFR Part 63, Subpart YYYY, National Emissions Standards for Hazardous Air Pollutants for Stationary Combustion Turbines**

This subpart establishes national emission limitations and operating limitations for hazardous air pollutants (HAP) emissions from stationary combustion turbines located at major sources of HAP emissions, and requirements to demonstrate initial and continuous compliance with the emission and operating limitations.

The facility is not a major or area source of HAP emissions and is not subject to this subpart.

**R. 40 CFR Part 64, Compliance Assurance Monitoring**

This regulation requires Compliance Assurance Monitoring (CAM) for units that meet the following three criteria:

1. the unit must have emission limit for the pollutant;
2. the unit must have add-on controls for the pollutant; these are devices such as flue gas recirculation (FGR), baghouses, and catalytic oxidizers; and
3. the unit must have a pre-control potential to emit of greater than a major source threshold

<b>Pollutant</b>	<b>Major Source Threshold (lb/year)</b>
NO <sub>x</sub>	20,000
SO <sub>x</sub>	140,000
PM <sub>10</sub>	140,000
CO	200,000
VOC	20,000

**C-4140-1-4 & -2-4 (47.5 MW Natural Gas-Fired Turbines):**

- 1) These units contains emission limits for NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, CO, and VOC.
- 2) These units have no add-on controls for SO<sub>x</sub> or PM<sub>10</sub> emissions. Therefore, this unit is not subject to CAM for SO<sub>x</sub> or PM<sub>10</sub> emissions. Based on 40 CFR 64.2(b)(1)(vi), NO<sub>x</sub> and CO emissions limits are exempt from CAM since the Part 70 permit already specifies a continuous compliance determination method for both NO<sub>x</sub> and CO. However, this permit unit may be subject to CAM for VOC emissions as it has add-on control in the form of an oxidation catalytic system.
- 3) The pre-control VOC emissions from this unit are calculated based on the uncontrolled emission factor of 1.6 lb-VOC/hr or 2.7 ppmv @ 15% O<sub>2</sub> and maximum operating time of 8,000 hr/yr as given on the current permit.

$$1.6 \text{ lb-VOC/hr} \times 8,000 \text{ hrs/yr} = \mathbf{12,800 \text{ lb-VOC/yr}}$$

The pre-control VOC potential to emit is less than the major source threshold of 20,000 lb-VOC/year as shown above. Therefore, this unit is not subject to CAM for VOC emissions.

**S. 40 CFR Part 82, Subparts B and F, Stratospheric Ozone**

These regulations apply to servicing motor vehicles when this service involves the ozone-depleting refrigerant in the motor vehicle air conditioner (MVAC). Sections of this regulation were amended in 2004 and 2008, and conditions 28 and 29 of C-4140-0-1 assure compliance with the requirements.

## **IX. PERMIT SHIELD**

A permit shield legally protects a facility from enforcement of the shielded regulations when a source is in compliance with the terms and conditions of the Title V permit. Compliance with the terms and conditions of the Operating Permit is considered compliance with all applicable requirements upon which those conditions are based, including those that have been subsumed.

### **A. Requirements Addressed by Model General Permit Templates**

The applicant is not requesting to use any model general permit templates for this Title V renewal project.

### **B. Obsolete Permit Shields From Existing Permit Requirements**

Condition 49 on the current permits C-4140-1-3 & -2-3 has been removed. The permit shield is obsolete since it was granted based on the previous amended version of District Rule 4703 which had been superseded by the current version (amended 9/20/07) and also based on 40 CFR Part 60, Subpart GG which had been superseded by the current version with latest amendment done on February 24, 2006.

Condition 46 and 47 on the current permits C-4140-1-3 & -2-3 have been removed. These permit shields are obsolete as the Fresno County Rules 108 and 108.1 are superseded by State Implementation Plan (SIP) approved District Rules 1080 and 1081; therefore, the permit shields for these rules are not applicable.

## **X. PERMIT CONDITIONS**

See Attachment A - Renewed Title V Operating Permits.

## **XI. ATTACHMENTS**

- A. Renewed Title V Operating Permits
- B. Previous Title V Operating Permits
- C. Detailed Facility List
- D. District Rule 4601 Stringency Analysis
- E. Table of Standards in Rule 4601

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# ATTACHMENT A

Renewed Title V Operating Permits

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# San Joaquin Valley Air Pollution Control District

FACILITY: C-4140-0-1

EXPIRATION DATE: 04/30/2008

## FACILITY-WIDE REQUIREMENTS

1. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. {4362} The owner or operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100, 6.1; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] Federally Enforceable Through Title V Permit
3. {4363} The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100, 7.0; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] Federally Enforceable Through Title V Permit
4. {4364} The owner or operator of any stationary source operation that emits more than 25 tons per year of nitrogen oxides or reactive organic compounds, shall provide the District annually with a written statement in such form and at such time as the District prescribes, showing actual emissions of nitrogen oxides and reactive organic compounds from that source. [District Rule 1160, 5.0] Federally Enforceable Through Title V Permit
5. {4365} Any person building, altering or replacing any operation, article, machine, equipment, or other contrivance, the use of which may cause the issuance of air contaminants or the use of which may eliminate, reduce, or control the issuance of air contaminants, shall first obtain an Authority to Construct (ATC) from the District unless exempted by District Rule 2020 (12/20/07). [District Rule 2010, 3.0 and 4.0; and 2020] Federally Enforceable Through Title V Permit
6. {4366} The permittee must comply with all conditions of the permit including permit revisions originated by the District. All terms and conditions of a permit that are required pursuant to the Clean Air Act (CAA), including provisions to limit potential to emit, are enforceable by the EPA and Citizens under the CAA. Any permit noncompliance constitutes a violation of the CAA and the District Rules and Regulations, and is grounds for enforcement action, for permit termination, revocation, reopening and reissuance, or modification; or for denial of a permit renewal application. [District Rules 2070, 7.0; 2080; and 2520, 9.9.1 and 9.13.1] Federally Enforceable Through Title V Permit
7. {4367} A Permit to Operate or an Authority to Construct shall not be transferred unless a new application is filed with and approved by the District. [District Rule 2031] Federally Enforceable Through Title V Permit
8. {4368} Every application for a permit required under Rule 2010 (12/17/92) shall be filed in a manner and form prescribed by the District. [District Rule 2040] Federally Enforceable Through Title V Permit
9. {4369} The operator shall maintain records of required monitoring that include: 1) the date, place, and time of sampling or measurement; 2) the date(s) analyses were performed; 3) the company or entity that performed the analysis; 4) the analytical techniques or methods used; 5) the results of such analysis; and 6) the operating conditions at the time of sampling or measurement. [District Rule 2520, 9.4.1] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate. Any amendments to these Facility-wide Requirements that affect specific Permit Units may constitute modification of those Permit Units.

Facility Name: GWF ENERGY LLC

Location: 10596 IDAHO AVENUE, HANFORD ENERGY PARK PEAKER PLANT, HANFORD, CA 93230

C-4140-0-1 : Nov 3 2010 4:25PM - BRARG

10. {4370} The operator shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, or report. Support information includes copies of all reports required by the permit and, for continuous monitoring instrumentation, all calibration and maintenance records and all original strip-chart recordings. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
11. {4371} The operator shall submit reports of any required monitoring at least every six months unless a different frequency is required by an applicable requirement. All instances of deviations from permit requirements must be clearly identified in such reports. [District Rule 2520, 9.5.1] Federally Enforceable Through Title V Permit
12. {4372} Deviations from permit conditions must be promptly reported, including deviations attributable to upset conditions, as defined in the permit. For the purpose of this condition, promptly means as soon as reasonably possible, but no later than 10 days after detection. The report shall include the probable cause of such deviations, and any corrective actions or preventive measures taken. All required reports must be certified by a responsible official consistent with section 10.0 of District Rule 2520 (6/21/01). [District Rules 2520, 9.5.2 and 1100, 7.0] Federally Enforceable Through Title V Permit
13. {4373} If for any reason a permit requirement or condition is being challenged for its constitutionality or validity by a court of competent jurisdiction, the outcome of such challenge shall not affect or invalidate the remainder of the conditions or requirements in that permit. [District Rule 2520, 9.7] Federally Enforceable Through Title V Permit
14. {4374} 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 permit. [District Rule 2520, 9.8.2] Federally Enforceable Through Title V Permit
15. {4375} The permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. [District Rule 2520, 9.8.3] Federally Enforceable Through Title V Permit
16. {4376} The permit does not convey any property rights of any sort, or any exclusive privilege. [District Rule 2520, 9.8.4] Federally Enforceable Through Title V Permit
17. {4377} The Permittee shall furnish to the District, within a reasonable time, any information that the District may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the District copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to EPA along with a claim of confidentiality. [District Rule 2520, 9.8.5] Federally Enforceable Through Title V Permit
18. {4378} The permittee shall pay annual permit fees and other applicable fees as prescribed in Regulation III of the District Rules and Regulations. [District Rule 2520, 9.9] Federally Enforceable Through Title V Permit
19. {4379} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to enter the permittee's premises where a permitted source is located or emissions related activity is conducted, or where records must be kept under condition of the permit. [District Rule 2520, 9.13.2.1] Federally Enforceable Through Title V Permit
20. {4380} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit. [District Rule 2520, 9.13.2.2] Federally Enforceable Through Title V Permit
21. {4381} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to inspect at reasonable times any facilities, equipment, practices, or operations regulated or required under the permit. [District Rule 2520, 9.13.2.3] Federally Enforceable Through Title V Permit
22. {4382} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. [District Rule 2520, 9.13.2.4] Federally Enforceable Through Title V Permit

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FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

23. {4383} No air contaminants shall be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is as dark or darker than Ringelmann #1 or equivalent to 20% opacity and greater, unless specifically exempted by District Rule 4101 (02/17/05). If the equipment or operation is subject to a more stringent visible emission standard as prescribed in a permit condition, the more stringent visible emission limit shall supersede this condition. [District Rule 4101, and County Rules 401 (in all eight counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit
24. {4384} No person shall manufacture, blend, repackage, supply, sell, solicit or apply any architectural coating with a VOC content in excess of the corresponding limit specified in Table of Standards 1 effective until 12/30/10 or Table of Standards 2 effective on and after 1/1/11 of District Rule 4601 (12/17/09) for use or sale within the District. [District Rule 4601, 5.1] Federally Enforceable Through Title V Permit
25. {4385} All VOC-containing materials subject to Rule 4601 (12/17/09) shall be stored in closed containers when not in use. [District Rule 4601, 5.4] Federally Enforceable Through Title V Permit
26. {4386} The permittee shall comply with all the Labeling and Test Methods requirements outlined in Rule 4601 sections 6.1 and 6.3 (12/17/09). [District Rule 4601, 6.1 and 6.3] Federally Enforceable Through Title V Permit
27. {4387} With each report or document submitted under a permit requirement or a request for information by the District or EPA, the permittee shall include a certification of truth, accuracy, and completeness by a responsible official. [District Rule 2520, 9.13.1 and 10.0] Federally Enforceable Through Title V Permit
28. {4388} If the permittee performs maintenance on, or services, repairs, or disposes of appliances, the permittee shall comply with the standards for Recycling and Emissions Reduction pursuant to 40 CFR Part 82, Subpart F. [40 CFR 82 Subpart F] Federally Enforceable Through Title V Permit
29. {4389} If the permittee performs service on motor vehicles when this service involves the ozone-depleting refrigerant in the motor vehicle air conditioner (MVAC), the permittee shall comply with the standards for Servicing of Motor Vehicle Air Conditioners pursuant to all the applicable requirements as specified in 40 CFR Part 82, Subpart B. [40 CFR Part 82, Subpart B] Federally Enforceable Through Title V Permit
30. {4390} Disturbances of soil related to any construction, demolition, excavation, extraction, or other earthmoving activities shall comply with the requirements for fugitive dust control in District Rule 8021 unless specifically exempted under Section 4.0 of Rule 8021 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8021 and 8011] Federally Enforceable Through Title V Permit
31. {4391} Outdoor handling, storage and transport of any bulk material which emits dust shall comply with the requirements of District Rule 8031, unless specifically exempted under Section 4.0 of Rule 8031 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8031 and 8011] Federally Enforceable Through Title V Permit
32. {4392} An owner/operator shall prevent or cleanup any carryout or trackout in accordance with the requirements of District Rule 8041 Section 5.0, unless specifically exempted under Section 4.0 of Rule 8041 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8041 and 8011] Federally Enforceable Through Title V Permit
33. {4393} Whenever open areas are disturbed, or vehicles are used in open areas, the facility shall comply with the requirements of Section 5.0 of District Rule 8051, unless specifically exempted under Section 4.0 of Rule 8051 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8051 and 8011] Federally Enforceable Through Title V Permit
34. {4394} Any paved road or unpaved road shall comply with the requirements of District Rule 8061 unless specifically exempted under Section 4.0 of Rule 8061 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8061 and Rule 8011] Federally Enforceable Through Title V Permit

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FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

35. {4395} Any unpaved vehicle/equipment area that anticipates more than 50 Average annual daily Trips (AADT) shall comply with the requirements of Section 5.1.1 of District Rule 8071. Any unpaved vehicle/equipment area that anticipates more than 150 vehicle trips per day (VDT) shall comply with the requirements of Section 5.1.2 of District Rule 8071. On each day that 25 or more VDT with 3 or more axles will occur on an unpaved vehicle/equipment traffic area, the owner/operator shall comply with the requirements of Section 5.1.3 of District Rule 8071. On each day when a special event will result in 1,000 or more vehicles that will travel/park on an unpaved area, the owner/operator shall comply with the requirements of Section 5.1.4 of District Rule 8071. All sources shall comply with the requirements of Section 5.0 of District Rule 8071 unless specifically exempted under Section 4.0 of Rule 8071 (9/16/2004) or Rule 8011 (8/19/2004). [District Rule 8071 and Rule 8011] Federally Enforceable Through Title V Permit
36. {4396} Any owner or operator of a demolition or renovation activity, as defined in 40 CFR 61.141, shall comply with the applicable inspection, notification, removal, and disposal procedures for asbestos containing materials as specified in 40 CFR 61.145 (Standard for Demolition and Renovation). [40 CFR 61 Subpart M] Federally Enforceable Through Title V Permit
37. {4397} The permittee shall submit certifications of compliance with the terms and standards contained in Title V permits, including emission limits, standards and work practices, to the District and the EPA annually (or more frequently as specified in an applicable requirement or as specified by the District). The certification shall include the identification of each permit term or condition, the compliance status, whether compliance was continuous or intermittent, the methods used for determining the compliance status, and any other facts required by the District to determine the compliance status of the source. [District Rule 2520, 9.16] Federally Enforceable Through Title V Permit
38. {4398} The permittee shall submit an application for Title V permit renewal to the District at least six months, but not greater than 18 months, prior to the permit expiration date. [District Rule 2520, 5.2] Federally Enforceable Through Title V Permit
39. {4399} When a term is not defined in a Title V permit condition, the definition in the rule cited as the origin and authority for the condition in a Title V permits shall apply. [District Rule 2520, 9.1.1] Federally Enforceable Through Title V Permit
40. {4400} Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following outdated SIP requirements: Rule 401 (Madera, Fresno, Kern, Kings, San Joaquin, Stanislaus, Tulare and Merced), Rule 110 (Fresno, Stanislaus, San Joaquin), Rule 109 (Merced), Rule 113 (Madera), Rule 111 (Kern, Tulare, Kings), and Rule 202 (Fresno, Kern, Tulare, Kings, Madera, Stanislaus, Merced, San Joaquin). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
41. {4401} Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rules 1100, sections 6.1 and 7.0 (12/17/92); 2010, sections 3.0 and 4.0 (12/17/92); 2031 (12/17/92); 2040 (12/17/92); 2070, section 7.0 (12/17/92); 2080 (12/17/92); 4101 (2/17/05); 4601 (12/1709); 8021 (8/19/2004); 8031 (8/19/2004); 8041 (8/19/2004); 8051 (8/19/2004); 8061 (8/19/2004); and 8071 (9/16/2004). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
42. The reporting periods for the Report of Required Monitoring and the Compliance Certification Report begin January 1 of every year, unless alternative dates are approved by the District Compliance Division. These reports are due within 30 days after the end of the reporting period. [District Rule 2520] Federally Enforceable Through Title V Permit

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These terms and conditions are part of the Facility-wide Permit to Operate.

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-4140-1-4

EXPIRATION DATE: 04/30/2008

## EQUIPMENT DESCRIPTION:

47.5 MW NOMINALLY RATED SIMPLE-CYCLE PEAK-DEMAND POWER GENERATING SYSTEM #1 CONSISTING OF A GENERAL ELECTRIC MODEL LM6000 NATURAL GAS-FIRED COMBUSTION TURBINE GENERATOR WITH WATER SPRAY PREMIXED COMBUSTION SYSTEMS, SERVED BY A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM WITH AMMONIA INJECTION AND AN OXIDATION CATALYST

## PERMIT UNIT REQUIREMENTS

1. Facilities C-603 and C-4140 are the same stationary source for SJVAPCD permitting purposes. [District Rule 2201] Federally Enforceable Through Title V Permit
2. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Selective catalytic reduction (SCR) system and oxidation catalyst shall serve the gas turbine engine. Exhaust ducting shall be equipped with a fresh air inlet and blower to be used to lower the exhaust temperature prior to inlet of the SCR system catalyst. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Combustion turbine generator (CTG) and generator lube oil vents shall be equipped with mist eliminators. Visible emissions from lube oil vents shall not exhibit opacity of 5% or greater, except for up to three minutes in any hour. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The CTG shall be equipped with a continuous monitoring system to measure and record hours of operation, and fuel consumption. [District Rules 2201 and 4001] Federally Enforceable Through Title V Permit
6. Operation of the turbine shall not exceed 8,000 hours per calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
7. The CTG shall be equipped with continuous emission monitor (CEM) for NO<sub>x</sub> (before and after SCR system), CO, and O<sub>2</sub>. Continuous emission monitor shall meet the requirements of 40 CFR parts 60 and 75 and shall be capable of monitoring emissions during startups and shutdowns as well as normal operating conditions. [District Rules 2201, 4001, and 4703, 6.2.1] Federally Enforceable Through Title V Permit
8. The facility shall install and maintain equipment, facilities, and systems compatible with the District's CEM data polling software system and shall make CEM data available to the District's automated polling system on a daily basis. [District Rule 1080] Federally Enforceable Through Title V Permit
9. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NO<sub>x</sub>, CO, and O<sub>2</sub> analyzer during District inspections. [District Rule 1081] Federally Enforceable Through Title V Permit
10. The owner or operator shall install, operate and maintain in calibration a system which continuously measures and records: emissions control system operating parameters, elapsed time of operation of the turbine, the fuel consumption, and the exhaust gas NO<sub>x</sub> and O<sub>2</sub> concentrations. [40 CFR 60.334(b)] Federally Enforceable Through Title V Permit
11. {2249} CEM cycling times shall be those specified in 40 CFR, Part 51, Appendix P, Sections 3.4, 3.4.1 and 3.4.2, or shall meet equivalent specifications established by mutual agreement of the District, the ARB and the EPA. [District Rule 1080, 6.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

12. {2250} The continuous NOx and O2 monitoring system shall meet the performance specification requirements in 40 CFR 60, Appendix F, 40 CFR 51, Appendix P, and Part 60, Appendix B, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [District Rule 1080, 6.3, 6.5, 6.6 and 7.2] Federally Enforceable Through Title V Permit
13. {2256} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
14. Sulfur compound emissions shall not exceed 0.2% by volume, 2,000 ppmv, on a dry basis averaged over 15 consecutive minutes. [40 CFR 60.333(a); Kings County Rule 407] Federally Enforceable Through Title V Permit
15. The CTG shall be fired exclusively on PUC-regulated natural gas with a sulfur content no greater than 0.25 grain of sulfur compounds (as S) per 100 dry scf of natural gas. [District Rule 2201; 40 CFR 60.333(a) and Kings County Rule 407] Federally Enforceable Through Title V Permit
16. {2262} If this unit is fired on PUC-regulated natural gas, then maintain on file copies of natural gas bills. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
17. Reduced load period is defined as the time during which a gas turbine is operated at less than rated capacity in order to change the position of the exhaust gas diverter gate. Each reduced load period shall not exceed one hour. [District Rule 4703, 3.23 and 5.3] Federally Enforceable Through Title V Permit
18. During startup or shutdown of any gas turbine engine, combined emissions from the two gas turbine engines (Unit #1 and Unit #2) shall not exceed either of the following limits: NOx - 15.4 lb or CO - 15.4 lb per event. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Startup shall be defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operations. Shutdown shall be defined as the period of time during which a unit is taken from an operational to a non-operational status as the fuel supply to the unit is completely turned off. [District Rule 4703, 3.26, 3.29 and 5.3] Federally Enforceable Through Title V Permit
20. Startup and shutdown durations shall not exceed a time period of one hour each per occurrence. [District Rules 2201 & 4703, 5.3.1.1] Federally Enforceable Through Title V Permit
21. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup and shutdown. [District Rule 4703, 5.3.2] Federally Enforceable Through Title V Permit
22. Emission rates from this unit, excluding startup and shutdown, shall not exceed any of the following limits: PM10: 3.03 lb/hr, SOx (as SO2): 0.33 lb/hr, NOx (as NO2): 3.7 ppmvd @ 15% O2 and 6.3 lb/hr, VOC (as methane): 2.0 ppmvd @ 15% O2 and 1.19 lb/hr, or CO: 6.0 ppmvd @ 15% O2 and 6.2 lb/hr. All emission limits, except ammonia, are three hour rolling averages. [District Rules 2201, 4001, and 4703, 5.1.2 & 5.2] Federally Enforceable Through Title V Permit
23. The ammonia (NH3) emissions shall not exceed 10 ppmvd @ 15% O2 over a 24 hour rolling average. [District Rule 2201] Federally Enforceable Through Title V Permit
24. Compliance with ammonia slip limit shall be demonstrated utilizing the following calculation procedure: ammonia slip ppmvd @ 15% O2 = ((a - (b x c/1,000,000)) x (1,000,000 / b) x d, where a = ammonia injection rate (lb/hr) / (17 lb/lb mol), b = dry exhaust flow rate (lb/hr) / (29 lb/lb mol), c = change in measured NOx concentration ppmvd @ 15% O2 across the catalyst and d = correction factor. The correction factor shall be derived annually during compliance testing by comparing the measured and calculated ammonia slip. Alternatively, the permittee may utilize a continuous in-stack ammonia monitor, acceptable to the District to monitor compliance. At least 60 days prior to using a NH3 CEM, the permittee shall submit a monitoring plan for District review and approval. [District Rule 4102]
25. Maximum daily emissions from this unit shall not exceed any of the following limits: PM10 - 72.8 lb/day; SOx (as SO2) - 7.8 lb/day; NOx (as NO2) - 151.5 lb/day; VOC - 28.7 lb/day; or CO - 150.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

26. Maximum annual emissions from this unit shall not exceed any of the following limits: NO<sub>x</sub> (as NO<sub>2</sub>) - 52,314 lb/year; VOC - 9,764 lb/year; CO - 51,947 lb/year; PM<sub>10</sub> - 25,176 lb/year; or SO<sub>x</sub> (as SO<sub>2</sub>) - 2,710 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
27. {2255} The owner or operator shall be required to conform to the compliance testing and sampling procedures described in District Rule 1081 (as amended 12/16/93). [District Rule 1081] Federally Enforceable Through Title V Permit
28. Compliance testing to demonstrate compliance with PM<sub>10</sub>, NO<sub>x</sub> (as NO<sub>2</sub>), VOC, CO, ammonia emission rates, and fuel gas sulfur content shall be conducted at least once every twelve months. [District Rule 1081] Federally Enforceable Through Title V Permit
29. Compliance demonstration (source testing) shall be District witnessed or authorized, and samples shall be collected by a California Air Resources Board certified testing laboratory. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
30. The following test methods shall be used PM<sub>10</sub>: EPA Method 5 (front half and back half), NO<sub>x</sub>: EPA Method 7E or 20, CO: EPA Method 10 or 10B, O<sub>2</sub>: EPA Method 3, 3A, or 20, VOC: EPA Method 18 or 25, ammonia: BAAQMD ST-1B, and fuel gas sulfur content: ASTM D3246. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081, 4001, and 4703, 6.4] Federally Enforceable Through Title V Permit
31. The owner or operator shall provide source test information annually regarding the exhaust gas NO<sub>x</sub> and CO concentration corrected to 15% O<sub>2</sub> (dry). EPA Methods 7E or 20 shall be used for NO<sub>x</sub> emissions. EPA Methods 10 or 10B shall be used for CO emissions. EPA Methods 3, 3A, or 20 shall be used for Oxygen content of the exhaust gas. [40 CFR 60.8(a), 40 CFR 60.335(a) and District Rule 4703, 5.1, 6.3.1, 6.4.1, 6.4.2, and 6.4.3] Federally Enforceable Through Title V Permit
32. {2270} All continuous monitoring systems and monitoring devices shall be installed and operational prior to conducting performance tests. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device. [40 CFR 60.13(b)] Federally Enforceable Through Title V Permit
33. {2272} Results of the CEM system shall be averaged over a three hour period, using consecutive 15-minute sampling periods in accordance with either EPA Method 7E or EPA Method 20 for NO<sub>x</sub>, EPA Test Methods 10 or 10B for CO, or EPA Methods 3, 3A, or 20 for O<sub>2</sub>, or, if continuous emission monitors are used, all applicable requirements of CFR 60.13. [40 CFR 60.13 and District Rule 4703, 5.1, 6.4] Federally Enforceable Through Title V Permit
34. The owner or operator shall not operate the gas turbine under load conditions, except as allowed by the transitional operation period, which results in the measured CO emissions concentration exceeding 200 ppmv @ 15% O<sub>2</sub>. [District Rule 4703, 5.2] Federally Enforceable Through Title V Permit
35. {2277} The HHV and LHV of the fuel combusted shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [40 CFR 60.332(a) and (b) and District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit
36. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the continuous emission monitor equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F. [District Rule 1080] Federally Enforceable Through Title V Permit
37. {2251} The owner or operator shall, upon written notice from the APCO, provide a summary of the data obtained from the CEM systems. This summary of data shall be in the form and the manner prescribed by the APCO. [District Rule 1080, 7.1] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

38. {2253} Operators of CEM systems installed at the direction of the APCO shall submit a written report for each calendar quarter to the APCO. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess emissions, nature and cause of excess (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEM was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080, 8.0] Federally Enforceable Through Title V Permit
39. Upon notice by the District that the facility's CEM system is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEM data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit
40. Results of continuous emissions monitoring shall be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.3.3, or by other methods deemed equivalent by mutual agreement with the District, the ARB, and the EPA. [District Rule 1080] Federally Enforceable Through Title V Permit
41. Audits of continuous emission monitors shall be conducted quarterly, except during quarters in which relative accuracy and total accuracy testing is performed, in accordance with EPA guidelines. The District shall be notified prior to completion of the audits. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] Federally Enforceable Through Title V Permit
42. {2254} APCO or an authorized representative shall be allowed to inspect, as he or she determines to be necessary, the monitoring devices required by this rule to ensure that such devices are functioning properly. [District Rule 1080, 11.0] Federally Enforceable Through Title V Permit
43. {2252} The owner or operator shall maintain records that contain the following: the occurrence and duration of any start-up, shutdown or malfunction, performance testing, evaluations, calibrations, checks, adjustments, any periods during which a continuous monitoring system or monitoring device is inoperative, maintenance of any CEM system that has been installed pursuant to District Rule 1080 (as amended 12/17/92), and emission measurements. [40 CFR 60.8(d) and District Rule 1080, 7.0] Federally Enforceable Through Title V Permit
44. The permittee shall maintain the following records: hours of operation, fuel consumption (scf/hr and scf/rolling twelve month period), continuous emission monitor measurements, calculated ammonia slip, and calculated NOx mass emission rates (lb/hr and lb/twelve month rolling period). [District Rule 2201] Federally Enforceable Through Title V Permit
45. The owner or operator shall maintain a stationary gas turbine system operating log that includes, on a daily basis, the actual local start-up and stop time, length and reason for reduced load periods, total hours of operation, type and quantity of fuel used. [District Rule 4703, 6.2.6] Federally Enforceable Through Title V Permit
46. The operator performing start-up or shutdown of this unit shall keep records of the duration of start-up or shutdown. [District Rule 4703, 6.2.8] Federally Enforceable Through Title V Permit
47. The operator of this unit shall keep records of the date, time and duration of each bypass transition period and each primary re-ignition period. [District Rule 4703, 6.2.11] Federally Enforceable Through Title V Permit
48. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirement: Kings County Rule 407 as of the date of permit issuance. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
49. {2282} Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: 40 CFR 60.7(b), 60.8, 60.8(d), 60.13, and 60.13(b); District Rules 1080 (as amended 12/17/92), Sections 6.3, 6.4, 6.5, 7.0, 7.1, 7.2, 7.3, 8.0, 9.0, 10.0, and 11.0; and 1081 (as amended 12/16/93) as of the date of permit issuance. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.



# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** C-4140-2-4

**EXPIRATION DATE:** 04/30/2008

**EQUIPMENT DESCRIPTION:**

47.5 MW NOMINALLY RATED SIMPLE-CYCLE PEAK-DEMAND POWER GENERATING SYSTEM #2 CONSISTING OF A GENERAL ELECTRIC MODEL LM6000 NATURAL GAS-FIRED COMBUSTION TURBINE GENERATOR WITH WATER SPRAY PREMIXED COMBUSTION SYSTEMS, SERVED BY A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM WITH AMMONIA INJECTION AND AN OXIDATION CATALYST

## PERMIT UNIT REQUIREMENTS

1. Facilities C-603 and C-4140 are the same stationary source for SJVAPCD permitting purposes. [District Rule 2201] Federally Enforceable Through Title V Permit
2. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Selective catalytic reduction (SCR) system and oxidation catalyst shall serve the gas turbine engine. Exhaust ducting shall be equipped with a fresh air inlet and blower to be used to lower the exhaust temperature prior to inlet of the SCR system catalyst. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Combustion turbine generator (CTG) and generator lube oil vents shall be equipped with mist eliminators. Visible emissions from lube oil vents shall not exhibit opacity of 5% or greater, except for up to three minutes in any hour. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The CTG shall be equipped with a continuous monitoring system to measure and record hours of operation, and fuel consumption. [District Rules 2201 and 4001] Federally Enforceable Through Title V Permit
6. Operation of the turbine shall not exceed 8,000 hours per calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
7. The CTG shall be equipped with continuous emission monitor (CEM) for NOx (before and after SCR system), CO, and O2. Continuous emission monitor shall meet the requirements of 40 CFR parts 60 and 75 and shall be capable of monitoring emissions during startups and shutdowns as well as normal operating conditions. [District Rules 2201, 4001, and 4703, 6.2.1] Federally Enforceable Through Title V Permit
8. The facility shall install and maintain equipment, facilities, and systems compatible with the District's CEM data polling software system and shall make CEM data available to the District's automated polling system on a daily basis. [District Rule 1080] Federally Enforceable Through Title V Permit
9. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NOx, CO, and O2 analyzer during District inspections. [District Rule 1081] Federally Enforceable Through Title V Permit
10. The owner or operator shall install, operate and maintain in calibration a system which continuously measures and records: emissions control system operating parameters, elapsed time of operation of the turbine, the fuel consumption, and the exhaust gas NOx and O2 concentrations. [40 CFR 60.334(b)] Federally Enforceable Through Title V Permit
11. {2249} CEM cycling times shall be those specified in 40 CFR, Part 51, Appendix P, Sections 3.4, 3.4.1 and 3.4.2, or shall meet equivalent specifications established by mutual agreement of the District, the ARB and the EPA. [District Rule 1080, 6.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

12. {2250} The continuous NO<sub>x</sub> and O<sub>2</sub> monitoring system shall meet the performance specification requirements in 40 CFR 60, Appendix F, 40 CFR 51, Appendix P, and Part 60, Appendix B, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [District Rule 1080, 6.3, 6.5, 6.6 and 7.2] Federally Enforceable Through Title V Permit
13. {2256} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
14. Sulfur compound emissions shall not exceed 0.2% by volume, 2,000 ppmv, on a dry basis averaged over 15 consecutive minutes. [40 CFR 60.333(a); Kings County Rule 407] Federally Enforceable Through Title V Permit
15. The CTG shall be fired exclusively on PUC-regulated natural gas with a sulfur content no greater than 0.25 grain of sulfur compounds (as S) per 100 dry scf of natural gas. [District Rule 2201; 40 CFR 60.333(a) and Kings County Rule 407] Federally Enforceable Through Title V Permit
16. {2262} If this unit is fired on PUC-regulated natural gas, then maintain on file copies of natural gas bills. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
17. Reduced load period is defined as the time during which a gas turbine is operated at less than rated capacity in order to change the position of the exhaust gas diverter gate. Each reduced load period shall not exceed one hour. [District Rule 4703, 3.23 and 5.3] Federally Enforceable Through Title V Permit
18. During startup or shutdown of any gas turbine engine, combined emissions from the two gas turbine engines (Unit #1 and Unit #2) shall not exceed either of the following limits: NO<sub>x</sub> - 15.4 lb or CO - 15.4 lb per event. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Startup shall be defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operations. Shutdown shall be defined as the period of time during which a unit is taken from an operational to a non-operational status as the fuel supply to the unit is completely turned off. [District Rule 4703, 3.26, 3.29 and 5.3] Federally Enforceable Through Title V Permit
20. Startup and shutdown durations shall not exceed a time period of one hour each per occurrence. [District Rules 2201 & 4703, 5.3.1.1] Federally Enforceable Through Title V Permit
21. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup and shutdown. [District Rule 4703, 5.3.2] Federally Enforceable Through Title V Permit
22. Emission rates from this unit, excluding startup and shutdown, shall not exceed any of the following limits: PM<sub>10</sub>: 3.03 lb/hr, SO<sub>x</sub> (as SO<sub>2</sub>): 0.33 lb/hr, NO<sub>x</sub> (as NO<sub>2</sub>): 3.7 ppmvd @ 15% O<sub>2</sub> and 6.3 lb/hr, VOC (as methane): 2.0 ppmvd @ 15% O<sub>2</sub> and 1.19 lb/hr, or CO: 6.0 ppmvd @ 15% O<sub>2</sub> and 6.2 lb/hr. All emission limits, except ammonia, are three hour rolling averages. [District Rules 2201, 4001, and 4703, 5.1.2 & 5.2] Federally Enforceable Through Title V Permit
23. The ammonia (NH<sub>3</sub>) emissions shall not exceed 10 ppmvd @ 15% O<sub>2</sub> over a 24 hour rolling average. [District Rule 2201] Federally Enforceable Through Title V Permit
24. Compliance with ammonia slip limit shall be demonstrated utilizing the following calculation procedure: ammonia slip ppmvd @ 15% O<sub>2</sub> = ((a - (b x c/1,000,000)) x (1,000,000 / b) x d, where a = ammonia injection rate (lb/hr) / (17 lb/lb mol), b = dry exhaust flow rate (lb/hr) / (29 lb/lb mol), c = change in measured NO<sub>x</sub> concentration ppmvd @ 15% O<sub>2</sub> across the catalyst and d = correction factor. The correction factor shall be derived annually during compliance testing by comparing the measured and calculated ammonia slip. Alternatively, the permittee may utilize a continuous in-stack ammonia monitor, acceptable to the District to monitor compliance. At least 60 days prior to using a NH<sub>3</sub> CEM, the permittee shall submit a monitoring plan for District review and approval. [District Rule 4102]
25. Maximum daily emissions from this unit shall not exceed any of the following limits: PM<sub>10</sub> - 72.8 lb/day; SO<sub>x</sub> (as SO<sub>2</sub>) - 7.8 lb/day; NO<sub>x</sub> (as NO<sub>2</sub>) - 151.5 lb/day; VOC - 28.7 lb/day; or CO - 150.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

26. Maximum annual emissions from this unit shall not exceed any of the following limits: NO<sub>x</sub> (as NO<sub>2</sub>) - 52,314 lb/year; VOC - 9,764 lb/year; CO - 51,947 lb/year; PM<sub>10</sub> - 25,176 lb/year; or SO<sub>x</sub> (as SO<sub>2</sub>) - 2,710 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
27. {2255} The owner or operator shall be required to conform to the compliance testing and sampling procedures described in District Rule 1081 (as amended 12/16/93). [District Rule 1081] Federally Enforceable Through Title V Permit
28. Compliance testing to demonstrate compliance with PM<sub>10</sub>, NO<sub>x</sub> (as NO<sub>2</sub>), VOC, CO, ammonia emission rates, and fuel gas sulfur content shall be conducted at least once every twelve months. [District Rule 1081] Federally Enforceable Through Title V Permit
29. Compliance demonstration (source testing) shall be District witnessed or authorized, and samples shall be collected by a California Air Resources Board certified testing laboratory. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
30. The following test methods shall be used PM<sub>10</sub>: EPA Method 5 (front half and back half), NO<sub>x</sub>: EPA Method 7E or 20, CO: EPA Method 10 or 10B, O<sub>2</sub>: EPA Method 3, 3A, or 20, VOC: EPA Method 18 or 25, ammonia: BAAQMD ST-1B, and fuel gas sulfur content: ASTM D3246. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081, 4001, and 4703, 6.4] Federally Enforceable Through Title V Permit
31. The owner or operator shall provide source test information annually regarding the exhaust gas NO<sub>x</sub> and CO concentration corrected to 15% O<sub>2</sub> (dry). EPA Methods 7E or 20 shall be used for NO<sub>x</sub> emissions. EPA Methods 10 or 10B shall be used for CO emissions. EPA Methods 3, 3A, or 20 shall be used for Oxygen content of the exhaust gas. [40 CFR 60.8(a), 40 CFR 60.335(a) and District Rule 4703, 5.1, 6.3.1, 6.4.1, 6.4.2, and 6.4.3] Federally Enforceable Through Title V Permit
32. {2270} All continuous monitoring systems and monitoring devices shall be installed and operational prior to conducting performance tests. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device. [40 CFR 60.13(b)] Federally Enforceable Through Title V Permit
33. {2272} Results of the CEM system shall be averaged over a three hour period, using consecutive 15-minute sampling periods in accordance with either EPA Method 7E or EPA Method 20 for NO<sub>x</sub>, EPA Test Methods 10 or 10B for CO, or EPA Methods 3, 3A, or 20 for O<sub>2</sub>, or, if continuous emission monitors are used, all applicable requirements of CFR 60.13. [40 CFR 60.13 and District Rule 4703, 5.1, 6.4] Federally Enforceable Through Title V Permit
34. The owner or operator shall not operate the gas turbine under load conditions, except as allowed by the transitional operation period, which results in the measured CO emissions concentration exceeding 200 ppmv @ 15% O<sub>2</sub>. [District Rule 4703, 5.2] Federally Enforceable Through Title V Permit
35. {2277} The HHV and LHV of the fuel combusted shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [40 CFR 60.332(a) and (b) and District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit
36. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the continuous emission monitor equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F. [District Rule 1080] Federally Enforceable Through Title V Permit
37. {2251} The owner or operator shall, upon written notice from the APCO, provide a summary of the data obtained from the CEM systems. This summary of data shall be in the form and the manner prescribed by the APCO. [District Rule 1080, 7.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

38. {2253} Operators of CEM systems installed at the direction of the APCO shall submit a written report for each calendar quarter to the APCO. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess emissions, nature and cause of excess (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEM was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080, 8.0] Federally Enforceable Through Title V Permit
39. Upon notice by the District that the facility's CEM system is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEM data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit
40. Results of continuous emissions monitoring shall be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.3.3, or by other methods deemed equivalent by mutual agreement with the District, the ARB, and the EPA. [District Rule 1080] Federally Enforceable Through Title V Permit
41. Audits of continuous emission monitors shall be conducted quarterly, except during quarters in which relative accuracy and total accuracy testing is performed, in accordance with EPA guidelines. The District shall be notified prior to completion of the audits. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] Federally Enforceable Through Title V Permit
42. {2254} APCO or an authorized representative shall be allowed to inspect, as he or she determines to be necessary, the monitoring devices required by this rule to ensure that such devices are functioning properly. [District Rule 1080, 11.0] Federally Enforceable Through Title V Permit
43. {2252} The owner or operator shall maintain records that contain the following: the occurrence and duration of any start-up, shutdown or malfunction, performance testing, evaluations, calibrations, checks, adjustments, any periods during which a continuous monitoring system or monitoring device is inoperative, maintenance of any CEM system that has been installed pursuant to District Rule 1080 (as amended 12/17/92), and emission measurements. [40 CFR 60.8(d) and District Rule 1080, 7.0] Federally Enforceable Through Title V Permit
44. The permittee shall maintain the following records: hours of operation, fuel consumption (scf/hr and scf/rolling twelve month period), continuous emission monitor measurements, calculated ammonia slip, and calculated NOx mass emission rates (lb/hr and lb/twelve month rolling period). [District Rule 2201] Federally Enforceable Through Title V Permit
45. The owner or operator shall maintain a stationary gas turbine system operating log that includes, on a daily basis, the actual local start-up and stop time, length and reason for reduced load periods, total hours of operation, type and quantity of fuel used. [District Rule 4703, 6.2.6] Federally Enforceable Through Title V Permit
46. The operator performing start-up or shutdown of this unit shall keep records of the duration of start-up or shutdown. [District Rule 4703, 6.2.8] Federally Enforceable Through Title V Permit
47. The operator of this unit shall keep records of the date, time and duration of each bypass transition period and each primary re-ignition period. [District Rule 4703, 6.2.11] Federally Enforceable Through Title V Permit
48. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirement: Kings County Rule 407 as of the date of permit issuance. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
49. {2282} Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: 40 CFR 60.7(b), 60.8, 60.8(d), 60.13, and 60.13(b); District Rules 1080 (as amended 12/17/92), Sections 6.3, 6.4, 6.5, 7.0, 7.1, 7.2, 7.3, 8.0, 9.0, 10.0, and 11.0; and 1081 (as amended 12/16/93) as of the date of permit issuance. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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These terms and conditions are part of the Facility-wide Permit to Operate.

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# ATTACHMENT B

Previous Title V Operating Permits

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# San Joaquin Valley Air Pollution Control District

FACILITY: C-4140-0-0

EXPIRATION DATE: 04/30/2008

## FACILITY-WIDE REQUIREMENTS

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1. The owner or operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100, 6.1; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] Federally Enforceable Through Title V Permit
2. The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100, 7.0; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] Federally Enforceable Through Title V Permit
3. The owner or operator of any stationary source operation that emits more than 25 tons per year of nitrogen oxides or reactive organic compounds, shall provide the District annually with a written statement in such form and at such time as the District prescribes, showing actual emissions of nitrogen oxides and reactive organic compounds from that source. [District Rule 1160, 5.0] Federally Enforceable Through Title V Permit
4. Any person building, altering or replacing any operation, article, machine, equipment, or other contrivance, the use of which may cause the issuance of air contaminants or the use of which may eliminate, reduce, or control the issuance of air contaminants, shall first obtain an Authority to Construct (ATC) from the District unless exempted by District Rule 2020 (3/21/02). [District Rule 2010, 3.0 and 4.0; and 2020] Federally Enforceable Through Title V Permit
5. The permittee must comply with all conditions of the permit including permit revisions originated by the District. All terms and conditions of a permit that are required pursuant to the Clean Air Act (CAA), including provisions to limit potential to emit, are enforceable by the EPA and Citizens under the CAA. Any permit noncompliance constitutes a violation of the CAA and the District Rules and Regulations, and is grounds for enforcement action, for permit termination, revocation, reopening and reissuance, or modification; or for denial of a permit renewal application. [District Rules 2070, 7.0; 2080; and 2520, 9.8.1 and 9.12.1] Federally Enforceable Through Title V Permit
6. A Permit to Operate or an Authority to Construct shall not be transferred unless a new application is filed with and approved by the District. [District Rule 2031] Federally Enforceable Through Title V Permit
7. Every application for a permit required under Rule 2010 (12/17/92) shall be filed in a manner and form prescribed by the District. [District Rule 2040] Federally Enforceable Through Title V Permit
8. The operator shall maintain records of required monitoring that include: 1) the date, place, and time of sampling or measurement; 2) the date(s) analyses were performed; 3) the company or entity that performed the analysis; 4) the analytical techniques or methods used; 5) the results of such analysis; and 6) the operating conditions at the time of sampling or measurement. [District Rule 2520, 9.4.1] Federally Enforceable Through Title V Permit
9. The operator shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, or report. Support information includes copies of all reports required by the permit and, for continuous monitoring instrumentation, all calibration and maintenance records and all original strip-chart recordings. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate. Any amendments to these Facility-wide Requirements that affect specific Permit Units may constitute modification of those Permit Units.

Facility Name: GWF ENERGY LLC

Location: 10598 IDAHO AVENUE, HANFORD ENERGY PARK PEAKER PLANT, HANFORD, CA 93230

C-4140-0-0: Nov 3 2010 4:05PM - BRARG

10. The operator shall submit reports of any required monitoring at least every six months unless a different frequency is required by an applicable requirement. All instances of deviations from permit requirements must be clearly identified in such reports. [District Rule 2520, 9.5.1] Federally Enforceable Through Title V Permit
11. Deviations from permit conditions must be promptly reported, including deviations attributable to upset conditions, as defined in the permit. For the purpose of this condition, promptly means as soon as reasonably possible, but no later than 10 days after detection. The report shall include the probable cause of such deviations, and any corrective actions or preventive measures taken. All required reports must be certified by a responsible official consistent with section 10.0 of District Rule 2520 (6/21/01). [District Rules 2520, 9.5.2 and 1100, 7.0] Federally Enforceable Through Title V Permit
12. If for any reason a permit requirement or condition is being challenged for its constitutionality or validity by a court of competent jurisdiction, the outcome of such challenge shall not affect or invalidate the remainder of the conditions or requirements in that permit. [District Rule 2520, 9.7] Federally Enforceable Through Title V Permit
13. 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 permit. [District Rule 2520, 9.8.2] Federally Enforceable Through Title V Permit
14. The permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. [District Rule 2520, 9.8.3] Federally Enforceable Through Title V Permit
15. The permit does not convey any property rights of any sort, or any exclusive privilege. [District Rule 2520, 9.8.4] Federally Enforceable Through Title V Permit
16. The Permittee shall furnish to the District, within a reasonable time, any information that the District may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the District copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to EPA along with a claim of confidentiality. [District Rule 2520, 9.8.5] Federally Enforceable Through Title V Permit
17. The permittee shall pay annual permit fees and other applicable fees as prescribed in Regulation III of the District Rules and Regulations. [District Rule 2520, 9.9] Federally Enforceable Through Title V Permit
18. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to enter the permittee's premises where a permitted source is located or emissions related activity is conducted, or where records must be kept under condition of the permit. [District Rule 2520, 9.13.2.1] Federally Enforceable Through Title V Permit
19. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit. [District Rule 2520, 9.13.2.2] Federally Enforceable Through Title V Permit
20. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to inspect at reasonable times any facilities, equipment, practices, or operations regulated or required under the permit. [District Rule 2520, 9.13.2.3] Federally Enforceable Through Title V Permit
21. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. [District Rule 2520, 9.13.2.4] Federally Enforceable Through Title V Permit
22. No air contaminants shall be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is as dark or darker than Ringelmann #1 or equivalent to 20% opacity and greater, unless specifically exempted by District Rule 4101 (11/15/01). If the equipment or operation is subject to a more stringent visible emission standard as prescribed in a permit condition, the more stringent visible emission limit shall supersede this condition. [District Rule 4101, and County Rules 401 (in all eight counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

23. No person shall manufacture, blend, repackage, supply, sell, solicit or apply any architectural coating with a VOC content in excess of the corresponding limit specified in the Table of Standards of District Rule 4601 (10/31/01) for use or sale within the District. [District Rule 4601, 5.1] Federally Enforceable Through Title V Permit
24. All VOC-containing materials for architectural coatings subject to Rule 4601 (10/31/01) shall be stored in closed containers when not in use. [District Rule 4601, 5.4] Federally Enforceable Through Title V Permit
25. The permittee shall comply with all the Labeling and Test Methods requirements outlined in Rule 4601 sections 6.1 and 6.3 (10/31/01). [District Rule 4601, 6.1 and 6.3] Federally Enforceable Through Title V Permit
26. With each report or document submitted under a permit requirement or a request for information by the District or EPA, the permittee shall include a certification of truth, accuracy, and completeness by a responsible official. [District Rule 2520, 9.13.1 and 10.0] Federally Enforceable Through Title V Permit
27. If the permittee performs maintenance on, or services, repairs, or disposes of appliances, the permittee shall comply with the standards for Recycling and Emissions Reduction pursuant to 40 CFR 82, Subpart F. [40 CFR 82 Subpart F] Federally Enforceable Through Title V Permit
28. If the permittee performs service on motor vehicles when this service involves the ozone-depleting refrigerant in the motor vehicle air conditioner (MVAC), the permittee shall comply with the standards for Servicing of Motor Vehicle Air Conditioners pursuant to all the applicable requirements as specified in 40 CFR 82, Subpart B. [40 CFR 82, Subpart B] Federally Enforceable Through Title V Permit
29. Disturbances of soil related to any construction, demolition, excavation, extraction, or other earthmoving activities shall comply with the requirements for fugitive dust control in District Rule 8021 unless specifically exempted under Section 4.0 of Rule 8021 (11/15/01) or Rule 8011 (11/15/01). [District Rule 8021 and 8011] Federally Enforceable Through Title V Permit
30. Outdoor handling, storage and transport of any bulk material which emits dust shall comply with the requirements of District Rule 8031, unless specifically exempted under Section 4.0 of Rule 8031 (11/15/01) or Rule 8011 (11/15/01). [District Rule 8031 and 8011] Federally Enforceable Through Title V Permit
31. An owner/operator shall prevent or cleanup any carryout or trackout in accordance with the requirements of District Rule 8041 Section 5.0, unless specifically exempted under Section 4.0 of Rule 8041 (11/15/01) or Rule 8011 (11/15/01). [District Rule 8041 and 8011] Federally Enforceable Through Title V Permit
32. Whenever open areas are disturbed or vehicles are used in open areas, the facility shall comply with the requirements of Section 5.0 of District Rule 8051, unless specifically exempted under Section 4.0 of Rule 8051 (11/15/01) or Rule 8011 (11/15/01). [District Rule 8051 and 8011] Federally Enforceable Through Title V Permit
33. Any paved road or unpaved road shall comply with the requirements of District Rule 8061 unless specifically exempted under Section 4.0 of Rule 8061 (11/15/01) or Rule 8011 (11/15/01). [District Rule 8061 and Rule 8011] Federally Enforceable Through Title V Permit
34. Any unpaved vehicle/equipment area that anticipates more than 75 vehicle trips per day shall comply with the requirements of Section 5.1.1 of District Rule 8071. Any unpaved vehicle/equipment area that anticipates more than 100 vehicle trips per day shall comply with the requirements of Section 5.1.2 of District Rule 8071. All sources shall comply with the requirements of Section 5.0 of District Rule 8071 unless specifically exempted under Section 4.0 of Rule 8071 (11/15/01) or Rule 8011 (11/15/01). [District Rule 8071 and Rule 8011] Federally Enforceable Through Title V Permit
35. Any owner or operator of a demolition or renovation activity, as defined in 40 CFR 61.141, shall comply with the applicable inspection, notification, removal, and disposal procedures for asbestos containing materials as specified in 40 CFR 61.145 (Standard for Demolition and Renovation). [40 CFR 61 Subpart M] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.



36. The permittee shall submit certifications of compliance with the terms and standards contained in Title V permits, including emission limits, standards and work practices, to the District and the EPA annually (or more frequently as specified in an applicable requirement or as specified by the District). The certification shall include the identification of each permit term or condition, the compliance status, whether compliance was continuous or intermittent, the methods used for determining the compliance status, and any other facts required by the District to determine the compliance status of the source. [District Rule 2520, 9.16] Federally Enforceable Through Title V Permit
37. The permittee shall submit an application for Title V permit renewal to the District at least six months, but not greater than 18 months, prior to the permit expiration date. [District Rule 2520, 5.2] Federally Enforceable Through Title V Permit
38. When a term is not defined in a Title V permit condition, the definition in the rule cited as the origin and authority for the condition in a Title V permits shall apply. [District Rule 2520, 9.1.1] Federally Enforceable Through Title V Permit
39. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following outdated SIP requirements: Rule 401 (Madera, Fresno, Kern, Kings, San Joaquin, Stanislaus, Tulare and Merced), Rule 110 (Fresno, Stanislaus, San Joaquin), Rule 109 (Merced), Rule 113 (Madera), and Rule 111 (Kern, Tulare, Kings). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
40. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rules 1100, sections 6.1 and 7.0 (12/17/92); 2010, sections 3.0 and 4.0 (12/17/92); 2031 (12/17/92); 2040 (12/17/92); 2070, section 7.0 (12/17/92); 2080 (12/17/92); 4101 (11/15/01); 4601, sections 5.1, 5.2, 5.3, 5.8 and 8.0 (10/31/01); 8021 (11/15/01); 8031 (11/15/01); 8041 (11/15/01); 8051 (11/15/01); 8061 (11/15/01); and 8071 (11/15/01). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
41. On January 31, 2004, the initial Title V permit was issued. The reporting periods for the Report of Required Monitoring and the Compliance Certification Report are based upon this initial permit issuance date, unless alternative dates are approved by the District Compliance Division. These reports are due within 30 days after the end of the reporting period. [District Rule 2520] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** C-4140-1-3

**EXPIRATION DATE:** 04/30/2008

**EQUIPMENT DESCRIPTION:**

47.5 MW NOMINALLY RATED SIMPLE-CYCLE PEAK-DEMAND POWER GENERATING SYSTEM #1 CONSISTING OF A GENERAL ELECTRIC MODEL LM6000 NATURAL GAS-FIRED COMBUSTION TURBINE GENERATOR WITH WATER SPRAY PREMIXED COMBUSTION SYSTEMS, SERVED BY A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM WITH AMMONIA INJECTION AND AN OXIDATION CATALYST

## PERMIT UNIT REQUIREMENTS

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1. Facilities C-603 and C-4140 are the same stationary source for SJVAPCD permitting purposes. [District Rule 2201] Federally Enforceable Through Title V Permit
2. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
3. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. Selective catalytic reduction (SCR) system and oxidation catalyst shall serve the gas turbine engine. Exhaust ducting shall be equipped with a fresh air inlet and blower to be used to lower the exhaust temperature prior to inlet of the SCR system catalyst. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Combustion turbine generator (CTG) and generator lube oil vents shall be equipped with mist eliminators. Visible emissions from lube oil vents shall not exhibit opacity of 5% or greater, except for up to three minutes in any hour. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The CTG shall be equipped with a continuous monitoring system to measure and record hours of operation, and fuel consumption. [District Rules 2201, 4001, and 4703] Federally Enforceable Through Title V Permit
7. Operation of the turbine shall not exceed 8,000 hours per calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The CTG shall be equipped with continuous emission monitor (CEM) for NOx (before and after SCR system), CO, and O2. Continuous emission monitor shall meet the requirements of 40 CFR parts 60 and 75 and shall be capable of monitoring emissions during startups and shutdowns as well as normal operating conditions. [District Rules 2201, 4001, and 4703] Federally Enforceable Through Title V Permit
9. The facility shall install and maintain equipment, facilities, and systems compatible with the District's CEM data polling software system and shall make CEM data available to the District's automated polling system on a daily basis. [District Rule 1080] Federally Enforceable Through Title V Permit
10. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NOx, CO, and O2 analyzer during District inspections. [District Rule 1081] Federally Enforceable Through Title V Permit
11. The owner or operator shall install, operate and maintain in calibration a system which continuously measures and records: emissions control system operating parameters, elapsed time of operation of the turbine, the fuel consumption, and the exhaust gas NOx and O2 concentrations. [40 CFR 60.334(a)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

12. CEM cycling times shall be those specified in 40 CFR, Part 51, Appendix P, Sections 3.4, 3.4.1 and 3.4.2, or shall meet equivalent specifications established by mutual agreement of the District, the ARB and the EPA. [District Rule 1080, 6.4] Federally Enforceable Through Title V Permit
13. The continuous NOx and O2 monitoring system shall meet the performance specification requirements in 40 CFR 60, Appendix F, 40 CFR 51, Appendix P, and Part 60, Appendix B, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [District Rule 1080, 6.3, 6.5, 6.6 and 7.2] Federally Enforceable Through Title V Permit
14. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
15. Sulfur compound emissions shall not exceed 0.2% by volume, 2,000 ppmv, on a dry basis averaged over 15 consecutive minutes. [40 CFR 60.333(a); County Rules 404 (Madera), 406 (Fresno), and 407 (Kings, Merced, San Joaquin, Tulare, Kern, and Stanislaus)] Federally Enforceable Through Title V Permit
16. The CTG shall be fired exclusively on PUC-regulated natural gas with a sulfur content no greater than 0.25 grain of sulfur compounds (as S) per 100 dry scf of natural gas. [District Rule 2201; 40 CFR 60.333(a); County Rules 404 (Madera), 406 (Fresno), and 407 (Kings, Merced, San Joaquin, Tulare, Kern, and Stanislaus)] Federally Enforceable Through Title V Permit
17. If this unit is fired on PUC-regulated natural gas, then maintain on file copies of natural gas bills. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
18. Thermal Stabilization Period shall be defined as the start up or shut down time during which the exhaust gas is not within the normal operating temperature range, not exceeding two hours. [District Rule 4703, 3.25] Federally Enforceable Through Title V Permit
19. During startup or shutdown of any gas turbine engine, combined emissions from the two gas turbine engines (Unit #1 and Unit #2) shall not exceed either of the following limits: NOx - 15.4 lb or CO - 15.4 lb per event. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
20. Startup is defined as the period beginning with turbine initial firing until the unit meets the lb/hr and ppmvd emission limits in condition #21. Shutdown is defined as the period beginning with initiation of turbine shutdown sequence and ending with cessation of firing of the gas turbine engine. Startup and shutdown durations shall not exceed a time period of one hour each per occurrence. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Emission rates from this unit, excluding startup and shutdown, shall not exceed any of the following limits: PM10: 3.03 lb/hr, SOx (as SO2): 0.33 lb/hr, NOx (as NO2): 3.7 ppmvd @ 15% O2 and 6.3 lb/hr, VOC (as methane): 2.0 ppmvd @ 15% O2 and 1.19 lb/hr, or CO: 6.0 ppmvd @ 15% O2 and 6.2 lb/hr. All emission limits, except ammonia, are three hour rolling averages. [District Rules 2201, 4001, and 4703] Federally Enforceable Through Title V Permit
22. The ammonia (NH3) emissions shall not exceed 10 ppmvd @ 15% O2 over a 24 hour rolling average. [District Rule 2201] Federally Enforceable Through Title V Permit
23. Compliance with ammonia slip limit shall be demonstrated utilizing the following calculation procedure: ammonia slip ppmvd @ 15% O2 =  $((a - (b \times c / 1,000,000)) \times (1,000,000 / b) \times d$ , where a = ammonia injection rate (lb/hr) / (17 lb/lb mol), b = dry exhaust flow rate (lb/hr) / (29 lb/lb mol), c = change in measured NOx concentration ppmvd @ 15% O2 across the catalyst and d = correction factor. The correction factor shall be derived annually during compliance testing by comparing the measured and calculated ammonia slip. Alternatively, the permittee may utilize a continuous in-stack ammonia monitor, acceptable to the District to monitor compliance. At least 60 days prior to using a NH3 CEM, the permittee shall submit a monitoring plan for District review and approval. [District Rule 4102] Federally Enforceable Through Title V Permit
24. Maximum daily emissions from this unit shall not exceed any of the following limits: PM10 - 72.8 lb/day; SOx (as SO2) - 7.8 lb/day; NOx (as NO2) - 151.5 lb/day; VOC - 28.7 lb/day; or CO - 150.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

25. Maximum annual emissions from this unit shall not exceed any of the following limits: NO<sub>x</sub> (as NO<sub>2</sub>) - 52,314 lb/year; VOC - 9,764 lb/year; CO - 51,947 lb/year; PM<sub>10</sub> - 25,176 lb/year; or SO<sub>x</sub> (as SO<sub>2</sub>) - 2,710 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
26. The owner or operator shall be required to conform to the compliance testing and sampling procedures described in District Rule 1081 (as amended 12/16/93). [District Rule 1081] Federally Enforceable Through Title V Permit
27. Source testing to measure PM<sub>10</sub>, NO<sub>x</sub> (as NO<sub>2</sub>), VOC, CO, and ammonia emission rates, and fuel gas sulfur content shall be conducted at least once every twelve months. [District Rule 1081] Federally Enforceable Through Title V Permit
28. Compliance demonstration (source testing) shall be District witnessed or authorized, and samples shall be collected by a California Air Resources Board certified testing laboratory. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
29. The following test methods shall be used PM<sub>10</sub>: EPA Method 5 (front half and back half), NO<sub>x</sub>: EPA Method 7E or 20, CO: EPA Method 10 or 10B, O<sub>2</sub>: EPA Method 3, 3A, or 20, VOC: EPA Method 18 or 25, ammonia: BAAQMD ST-1B, and fuel gas sulfur content: ASTM D3246. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081, 4001, and 4703] Federally Enforceable Through Title V Permit
30. The owner or operator shall provide source test information annually regarding the exhaust gas NO<sub>x</sub> and CO concentration corrected to 15% O<sub>2</sub> (dry). EPA Methods 7E or 20 shall be used for NO<sub>x</sub> emissions. EPA Methods 10 or 10B shall be used for CO emissions. EPA Methods 3, 3A, or 20 shall be used for Oxygen content of the exhaust gas. [40 CFR 60.8(a) and District Rule 4703, 5.1, 6.3.1, 6.4.1, 6.4.2, and 6.4.3] Federally Enforceable Through Title V Permit
31. The owner or operator shall provide source test information annually regarding the demonstrated percent efficiency (EFF) as defined in District Rule 4703 (as amended 4/25/02), 5.1.1 and 6.4.6. [40 CFR 60.332(a) and (b) and District Rule 4703, 5.1.1 and 6.4.6] Federally Enforceable Through Title V Permit
32. All continuous monitoring systems and monitoring devices shall be installed and operational prior to conducting performance tests. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device. [40 CFR 60.13(b)] Federally Enforceable Through Title V Permit
33. Results of the CEM system shall be averaged over a three hour period, using consecutive 15-minute sampling periods in accordance with either EPA Method 7E or EPA Method 20 for NO<sub>x</sub>, EPA Test Methods 10 or 10B for CO, or EPA Methods 3, 3A, or 20 for O<sub>2</sub>, or, if continuous emission monitors are used, all applicable requirements of CFR 60.13. [40 CFR 60.13 and District Rule 4703, 5.1, 6.4] Federally Enforceable Through Title V Permit
34. The owner or operator shall not operate the gas turbine under load conditions, excluding the thermal stabilization period or reduced load period, which results in the measured CO emissions concentration exceeding 200 ppmv @ 15% O<sub>2</sub>. [District Rule 4703, 5.2] Federally Enforceable Through Title V Permit
35. The HHV and LHV of the fuel combusted shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [40 CFR 60.332(a) and (b) and District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit
36. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the continuous emission monitor equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F. [District Rule 1080] Federally Enforceable Through Title V Permit
37. The owner or operator shall, upon written notice from the APCO, provide a summary of the data obtained from the CEM systems. This summary of data shall be in the form and the manner prescribed by the APCO. [District Rule 1080, 7.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

38. Operators of CEM systems installed at the direction of the APCO shall submit a written report for each calendar quarter to the APCO. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess emissions, nature and cause of excess (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEM was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080, 8.0] Federally Enforceable Through Title V Permit
39. Upon notice by the District that the facility's CEM system is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEM data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit
40. Results of continuous emissions monitoring shall be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.3.3, or by other methods deemed equivalent by mutual agreement with the District, the ARB, and the EPA. [District Rule 1080] Federally Enforceable Through Title V Permit
41. Audits of continuous emission monitors shall be conducted quarterly, except during quarters in which relative accuracy and total accuracy testing is performed, in accordance with EPA guidelines. The District shall be notified prior to completion of the audits. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] Federally Enforceable Through Title V Permit
42. APCO or an authorized representative shall be allowed to inspect, as he or she determines to be necessary, the monitoring devices required by this rule to ensure that such devices are functioning properly. [District Rule 1080, 11.0] Federally Enforceable Through Title V Permit
43. The owner or operator shall maintain records that contain the following: the occurrence and duration of any start-up, shutdown or malfunction, performance testing, evaluations, calibrations, checks, adjustments, any periods during which a continuous monitoring system or monitoring device is inoperative, maintenance of any CEM system that has been installed pursuant to District Rule 1080 (as amended 12/17/92), and emission measurements. [40 CFR 60.8(d) and District Rule 1080, 7.0] Federally Enforceable Through Title V Permit
44. The permittee shall maintain the following records: hours of operation, fuel consumption (scf/hr and scf/rolling twelve month period), continuous emission monitor measurements, calculated ammonia slip, and calculated NOx mass emission rates (lb/hr and lb/twelve month rolling period). [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
45. The owner or operator of a stationary gas turbine system shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
46. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Rules 108 (Fresno, Kings, Merced, San Joaquin, Tulare, Kern, and Stanislaus) and 109 (Madera) as of the date of permit issuance. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
47. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Rules 108.1 (Fresno, Kings, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera) as of the date of permit issuance. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
48. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Rules 404 (Madera), 406 (Fresno), and 407 (Kings, Merced, San Joaquin, Tulare, Kern, and Stanislaus) as of the date of permit issuance. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

49. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: 40 CFR 60.332(a), (a)(1), (a)(2), (b), and (f), 60.333 (a) and (b); 60.334(a), (b)(2), (c)(1), (c)(2), and (c)(3), and 60.335(b), (c)(2), (c)(3), and (d); District Rule 4703 (as amended 4/25/02), Sections 5.1.1, 5.2, 6.1, 6.3.1, 6.3.3, 6.4, 6.4.5, and 6.4.6 as of the date of permit issuance. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
50. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: 40 CFR 60.7(b), 60.8, 60.8(d), 60.13, and 60.13(b); District Rules 1080 (as amended 12/17/92), Sections 6.3, 6.4, 6.5, 7.0, 7.1, 7.2, 7.3, 8.0, 9.0, 10.0, and 11.0; and 1081 (as amended 12/16/93) as of the date of permit issuance. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** C-4140-2-3

**EXPIRATION DATE:** 04/30/2008

## **EQUIPMENT DESCRIPTION:**

47.5 MW NOMINALLY RATED SIMPLE-CYCLE PEAK-DEMAND POWER GENERATING SYSTEM #2 CONSISTING OF A GENERAL ELECTRIC MODEL LM6000 NATURAL GAS-FIRED COMBUSTION TURBINE GENERATOR WITH WATER SPRAY PREMIXED COMBUSTION SYSTEMS, SERVED BY A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM WITH AMMONIA INJECTION AND AN OXIDATION CATALYST

## **PERMIT UNIT REQUIREMENTS**

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1. Facilities C-603 and C-4140 are the same stationary source for SJVAPCD permitting purposes. [District Rule 2201] Federally Enforceable Through Title V Permit
2. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
3. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. Selective catalytic reduction (SCR) system and oxidation catalyst shall serve the gas turbine engine. Exhaust ducting shall be equipped with a fresh air inlet and blower to be used to lower the exhaust temperature prior to inlet of the SCR system catalyst. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Combustion turbine generator (CTG) and generator lube oil vents shall be equipped with mist eliminators. Visible emissions from lube oil vents shall not exhibit opacity of 5% or greater, except for up to three minutes in any hour. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The CTG shall be equipped with a continuous monitoring system to measure and record hours of operation, and fuel consumption. [District Rules 2201, 4001, and 4703] Federally Enforceable Through Title V Permit
7. Operation of the turbine shall not exceed 8,000 hours per calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The CTG shall be equipped with continuous emission monitor (CEM) for NO<sub>x</sub> (before and after SCR system), CO, and O<sub>2</sub>. Continuous emission monitor shall meet the requirements of 40 CFR parts 60 and 75 and shall be capable of monitoring emissions during startups and shutdowns as well as normal operating conditions. [District Rules 2201, 4001, and 4703] Federally Enforceable Through Title V Permit
9. The facility shall install and maintain equipment, facilities, and systems compatible with the District's CEM data polling software system and shall make CEM data available to the District's automated polling system on a daily basis. [District Rule 1080] Federally Enforceable Through Title V Permit
10. The exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NO<sub>x</sub>, CO, and O<sub>2</sub> analyzer during District inspections. [District Rule 1081] Federally Enforceable Through Title V Permit
11. The owner or operator shall install, operate and maintain in calibration a system which continuously measures and records: emissions control system operating parameters, elapsed time of operation of the turbine, the fuel consumption, and the exhaust gas NO<sub>x</sub> and O<sub>2</sub> concentrations. [40 CFR 60.334(a)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
These terms and conditions are part of the Facility-wide Permit to Operate.

12. CEM cycling times shall be those specified in 40 CFR, Part 51, Appendix P, Sections 3.4, 3.4.1 and 3.4.2, or shall meet equivalent specifications established by mutual agreement of the District, the ARB and the EPA. [District Rule 1080, 6.4] Federally Enforceable Through Title V Permit
13. The continuous NOx and O2 monitoring system shall meet the performance specification requirements in 40 CFR 60, Appendix F, 40 CFR 51, Appendix P, and Part 60, Appendix B, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [District Rule 1080, 6.3, 6.5, 6.6 and 7.2] Federally Enforceable Through Title V Permit
14. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
15. Sulfur compound emissions shall not exceed 0.2% by volume, 2,000 ppmv, on a dry basis averaged over 15 consecutive minutes. [40 CFR 60.333(a); County Rules 404 (Madera), 406 (Fresno), and 407 (Kings, Merced, San Joaquin, Tulare, Kern, and Stanislaus)] Federally Enforceable Through Title V Permit
16. The CTG shall be fired exclusively on PUC-regulated natural gas with a sulfur content no greater than 0.25 grain of sulfur compounds (as S) per 100 dry scf of natural gas. [District Rule 2201; 40 CFR 60.333(a); County Rules 404 (Madera), 406 (Fresno), and 407 (Kings, Merced, San Joaquin, Tulare, Kern, and Stanislaus)] Federally Enforceable Through Title V Permit
17. If this unit is fired on PUC-regulated natural gas, then maintain on file copies of natural gas bills. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
18. Thermal Stabilization Period shall be defined as the start up or shut down time during which the exhaust gas is not within the normal operating temperature range, not exceeding two hours. [District Rule 4703, 3.25] Federally Enforceable Through Title V Permit
19. During startup or shutdown of any gas turbine engine, combined emissions from the two gas turbine engines (Unit #1 and Unit #2) shall not exceed either of the following limits: NOx - 15.4 lb or CO - 15.4 lb per event. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
20. Startup is defined as the period beginning with turbine initial firing until the unit meets the lb/hr and ppmvd emission limits in condition #21. Shutdown is defined as the period beginning with initiation of turbine shutdown sequence and ending with cessation of firing of the gas turbine engine. Startup and shutdown durations shall not exceed a time period of one hour each per occurrence. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Emission rates from this unit, excluding startup and shutdown, shall not exceed any of the following limits: PM10: 3.03 lb/hr, SOx (as SO2): 0.33 lb/hr, NOx (as NO2): 3.7 ppmvd @ 15% O2 and 6.3 lb/hr, VOC (as methane): 2.0 ppmvd @ 15% O2 and 1.19 lb/hr, or CO: 6.0 ppmvd @ 15% O2 and 6.2 lb/hr. All emission limits, except ammonia, are three hour rolling averages. [District Rules 2201, 4001, and 4703] Federally Enforceable Through Title V Permit
22. The ammonia (NH3) emissions shall not exceed 10 ppmvd @ 15% O2 over a 24 hour rolling average. [District Rule 2201] Federally Enforceable Through Title V Permit
23. Compliance with ammonia slip limit shall be demonstrated utilizing the following calculation procedure: ammonia slip ppmvd @ 15% O2 =  $((a - (b \times c / 1,000,000)) \times (1,000,000 / b) \times d$ , where a = ammonia injection rate (lb/hr) / (17 lb/lb mol), b = dry exhaust flow rate (lb/hr) / (29 lb/lb mol), c = change in measured NOx concentration ppmvd @ 15% O2 across the catalyst and d = correction factor. The correction factor shall be derived annually during compliance testing by comparing the measured and calculated ammonia slip. Alternatively, the permittee may utilize a continuous in-stack ammonia monitor, acceptable to the District to monitor compliance. At least 60 days prior to using a NH3 CEM, the permittee shall submit a monitoring plan for District review and approval. [District Rule 4102] Federally Enforceable Through Title V Permit
24. Maximum daily emissions from this unit shall not exceed any of the following limits: PM10 - 72.8 lb/day; SOx (as SO2) - 7.8 lb/day; NOx (as NO2) - 151.5 lb/day; VOC - 28.7 lb/day; or CO - 150.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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25. Maximum annual emissions from this unit shall not exceed any of the following limits: NO<sub>x</sub> (as NO<sub>2</sub>) - 52,314 lb/year; VOC - 9,764 lb/year; CO - 51,947 lb/year; PM<sub>10</sub> - 25,176 lb/year; or SO<sub>x</sub> (as SO<sub>2</sub>) - 2,710 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
26. The owner or operator shall be required to conform to the compliance testing and sampling procedures described in District Rule 1081 (as amended 12/16/93). [District Rule 1081] Federally Enforceable Through Title V Permit
27. Source testing to measure PM<sub>10</sub>, NO<sub>x</sub> (as NO<sub>2</sub>), VOC, CO, and ammonia emission rates, and fuel gas sulfur content shall be conducted at least once every twelve months. [District Rule 1081] Federally Enforceable Through Title V Permit
28. Compliance demonstration (source testing) shall be District witnessed or authorized, and samples shall be collected by a California Air Resources Board certified testing laboratory. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
29. The following test methods shall be used PM<sub>10</sub>: EPA Method 5 (front half and back half), NO<sub>x</sub>: EPA Method 7E or 20, CO: EPA Method 10 or 10B, O<sub>2</sub>: EPA Method 3, 3A, or 20, VOC: EPA Method 18 or 25, ammonia: BAAQMD ST-1B, and fuel gas sulfur content: ASTM D3246. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081, 4001, and 4703] Federally Enforceable Through Title V Permit
30. The owner or operator shall provide source test information annually regarding the exhaust gas NO<sub>x</sub> and CO concentration corrected to 15% O<sub>2</sub> (dry). EPA Methods 7E or 20 shall be used for NO<sub>x</sub> emissions. EPA Methods 10 or 10B shall be used for CO emissions. EPA Methods 3, 3A, or 20 shall be used for Oxygen content of the exhaust gas. [40 CFR 60.8(a) and District Rule 4703, 5.1, 6.3.1, 6.4.1, 6.4.2, and 6.4.3] Federally Enforceable Through Title V Permit
31. The owner or operator shall provide source test information annually regarding the demonstrated percent efficiency (EFF) as defined in District Rule 4703 (as amended 4/25/02), 5.1.1 and 6.4.6. [40 CFR 60.332(a) and (b) and District Rule 4703, 5.1.1 and 6.4.6] Federally Enforceable Through Title V Permit
32. All continuous monitoring systems and monitoring devices shall be installed and operational prior to conducting performance tests. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device. [40 CFR 60.13(b)] Federally Enforceable Through Title V Permit
33. Results of the CEM system shall be averaged over a three hour period, using consecutive 15-minute sampling periods in accordance with either EPA Method 7E or EPA Method 20 for NO<sub>x</sub>, EPA Test Methods 10 or 10B for CO, or EPA Methods 3, 3A, or 20 for O<sub>2</sub>, or, if continuous emission monitors are used, all applicable requirements of CFR 60.13. [40 CFR 60.13 and District Rule 4703, 5.1, 6.4] Federally Enforceable Through Title V Permit
34. The owner or operator shall not operate the gas turbine under load conditions, excluding the thermal stabilization period or reduced load period, which results in the measured CO emissions concentration exceeding 200 ppmv @ 15% O<sub>2</sub>. [District Rule 4703, 5.2] Federally Enforceable Through Title V Permit
35. The HHV and LHV of the fuel combusted shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [40 CFR 60.332(a) and (b) and District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit
36. The permittee shall comply with the applicable requirements for quality assurance testing and maintenance of the continuous emission monitor equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F. [District Rule 1080] Federally Enforceable Through Title V Permit
37. The owner or operator shall, upon written notice from the APCO, provide a summary of the data obtained from the CEM systems. This summary of data shall be in the form and the manner prescribed by the APCO. [District Rule 1080, 7.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
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38. Operators of CEM systems installed at the direction of the APCO shall submit a written report for each calendar quarter to the APCO. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess emissions, nature and cause of excess (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEM was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 1080, 8.0] Federally Enforceable Through Title V Permit
39. Upon notice by the District that the facility's CEM system is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEM data is sent to the District by a District-approved alternative method. [District Rule 1080] Federally Enforceable Through Title V Permit
40. Results of continuous emissions monitoring shall be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.3.3, or by other methods deemed equivalent by mutual agreement with the District, the ARB, and the EPA. [District Rule 1080] Federally Enforceable Through Title V Permit
41. Audits of continuous emission monitors shall be conducted quarterly, except during quarters in which relative accuracy and total accuracy testing is performed, in accordance with EPA guidelines. The District shall be notified prior to completion of the audits. Audit reports shall be submitted along with quarterly compliance reports to the District. [District Rule 1080] Federally Enforceable Through Title V Permit
42. APCO or an authorized representative shall be allowed to inspect, as he or she determines to be necessary, the monitoring devices required by this rule to ensure that such devices are functioning properly. [District Rule 1080, 11.0] Federally Enforceable Through Title V Permit
43. The owner or operator shall maintain records that contain the following: the occurrence and duration of any start-up, shutdown or malfunction, performance testing, evaluations, calibrations, checks, adjustments, any periods during which a continuous monitoring system or monitoring device is inoperative, maintenance of any CEM system that has been installed pursuant to District Rule 1080 (as amended 12/17/92), and emission measurements. [40 CFR 60.8(d) and District Rule 1080, 7.0] Federally Enforceable Through Title V Permit
44. The permittee shall maintain the following records: hours of operation, fuel consumption (scf/hr and scf/rolling twelve month period), continuous emission monitor measurements, calculated ammonia slip, and calculated NOx mass emission rates (lb/hr and lb/twelve month rolling period). [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
45. The owner or operator of a stationary gas turbine system shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
46. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Rules 108 (Fresno, Kings, Merced, San Joaquin, Tulare, Kern, and Stanislaus) and 109 (Madera) as of the date of permit issuance. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
47. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Rules 108.1 (Fresno, Kings, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera) as of the date of permit issuance. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
48. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Rules 404 (Madera), 406 (Fresno), and 407 (Kings, Merced, San Joaquin, Tulare, Kern, and Stanislaus) as of the date of permit issuance. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
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49. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: 40 CFR 60.332(a), (a)(1), (a)(2), (b), and (f), 60.333 (a) and (b); 60.334(a), (b)(2), (c)(1), (c)(2), and (c)(3), and 60.335(b), (c)(2), (c)(3), and (d); District Rule 4703 (as amended 4/25/02), Sections 5.1.1, 5.2, 6.1, 6.3.1, 6.3.3, 6.4, 6.4.5, and 6.4.6 as of the date of permit issuance. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
50. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: 40 CFR 60.7(b), 60.8, 60.8(d), 60.13, and 60.13(b); District Rules 1080 (as amended 12/17/92), Sections 6.3, 6.4, 6.5, 7.0, 7.1, 7.2, 7.3, 8.0, 9.0, 10.0, and 11.0; and 1081 (as amended 12/16/93) as of the date of permit issuance. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

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# ATTACHMENT C

## Detailed Facility List

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**Detailed Facility Report**  
For Facility=4140 and excluding Deleted Permits  
Sorted by Facility Name and Permit Number

<b>GWF ENERGY LLC</b> <b>10596 IDAHO AVENUE</b> <b>HANFORD ENERGY PARK PEAKER PLANT</b> <b>HANFORD, CA 93230</b>	FAC #	<b>C 4140</b>	TYPE:	<b>TitleV</b>	EXPIRE ON:	<b>04/30/2008</b>
	STATUS:	<b>A</b>	TOXIC ID:	<b>51860</b>	AREA:	<b>8 /</b>
	TELEPHONE:				INSP. DATE:	<b>06/11</b>

PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
C-4140-1-3	47,500 kW	3020-08B G	1	10,215.00	10,215.00	A	47.5 MW NOMINALLY RATED SIMPLE-CYCLE PEAK-DEMAND POWER GENERATING SYSTEM #1 CONSISTING OF A GENERAL ELECTRIC MODEL LM6000 NATURAL GAS-FIRED COMBUSTION TURBINE GENERATOR WITH WATER SPRAY PREMIXED COMBUSTION SYSTEMS, SERVED BY A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM WITH AMMONIA INJECTION AND AN OXIDATION CATALYST
C-4140-2-3	47,500 kW	3020-08B G	1	10,215.00	10,215.00	A	47.5 MW NOMINALLY RATED SIMPLE-CYCLE PEAK-DEMAND POWER GENERATING SYSTEM #2 CONSISTING OF A GENERAL ELECTRIC MODEL LM6000 NATURAL GAS-FIRED COMBUSTION TURBINE GENERATOR WITH WATER SPRAY PREMIXED COMBUSTION SYSTEMS, SERVED BY A SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM WITH AMMONIA INJECTION AND AN OXIDATION CATALYST

Number of Facilities Reported: 1

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# ATTACHMENT D

District Rule 4601 Stringency Analysis

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**Stringency Comparison of District Rule 4601 Non-SIP Version (12/17/09) to Current SIP Version (10/31/01)**

Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
2.0 Applicability	This rule is applicable to any person who supplies, sells, offers for sale, applies, or solicits the application of any architectural coating, or who manufactures any architectural coating for use within the District.	This rule is applicable to any person who supplies, sells, offers for sale, applies, or solicits the application of any architectural coating, or who manufactures, blends or repackages any architectural coating for use within the District.	No change in the applicability, therefore, non-SIP version of rule is as stringent as SIP version.
4.0 Exemptions	<p>The provisions of this rule shall not apply to:</p> <p>4.1 Any architectural coating that is sold or manufactured for use outside of the District or for shipment to other manufacturers for reformulation or repackaging.</p> <p>4.2 Any architectural coating that is sold in a containers with a volume of one liter (1.057 quarts) or less.</p> <p>4.3 Any aerosol coating product.</p>	<p>4.1 The provisions of this rule shall not apply to:</p> <p>4.1.1 Any architectural coating that is supplied, sold, offered for sale, or manufactured for use outside of the District or for shipment to other manufacturers for reformulation or repackaging.</p> <p>4.1.2 Any aerosol coating product.</p> <p>4.2 With the exception of Section 6.2, the provisions of this rule shall not apply to any architectural coating that is sold in a container with a volume of one liter (1.057 quarts) or less.</p>	The only change is to require reporting requirements as discussed in Section 6.2 of the non-SIP approved version. Therefore, the non-SIP version of the rule is more stringent than the SIP version of the rule.
5.0 Requirements	<b>Note: Section 5.0 requirements refer to Table of Standards, Table of Standards 1, and Table of Standards 2. These tables are included as Attachment F.</b>		
	<p>5.1 VOC Content Limits: Except as provided in Sections 5.2, 5.3, 5.8 and 8.0, no person shall;</p> <p>5.1.1 manufacture, blend, or repackage for sale within the District;</p> <p>5.1.2 supply, sell, or offer for sale within the district;</p> <p>5.1.3 solicit for application or apply within the District any architectural coating with a VOC content in excess of the corresponding limit specified in the Table of Standards, after the specified effective date in the Table of Standards.</p>	<p>5.1 VOC Content Limits: Except as provided in Sections 5.2 and 5.3, no person shall: manufacture, blend, or repackage for use within the District; or supply, sell, or offer for sale within the District; or solicit for application or apply within the District any architectural coating with a VOC content in excess of the corresponding limit specified in the Table of Standards 1 or the Table of Standards 2, after the specified effective date in the Table of Standards 1 or the Table of Standards 2. Limits are expressed as VOC Regulatory, thinned to the manufacturer's maximum thinning recommendation, excluding any colorant added to tint bases.</p>	Sections 5.8 and 8.0 of the SIP version are not included in the non-SIP version. As discussed in corresponding sections the non-SIP version is more stringent. The Table of Standards and Table of Standards 1 have the same VOC limits. Table of Standard 2 is more stringent as discussed below. Therefore, the non-SIP version of the rule is more stringent than the SIP version of the rule.
	<p>5.2 Most Restrictive VOC Limit: If anywhere on the container of any architectural coating, or any label or sticker affixed to the container, or in any sales, advertising, or technical literature supplied by a manufacturer or anyone acting on their behalf, any representation is made that indicates that the coating meets the definition of or is recommended for use for more than one of the coating categories listed in the Table of Standards, then the most restrictive VOC content limit shall apply. This provision does not apply to the following coating categories:</p> <p>5.2.1 Lacquer coatings (including</p>	<p>5.2 Most Restrictive VOC Limit: If a coating meets the definition in Section 3.0 for one or more specialty coating categories listed in the Table of Standards 1 or the Table of Standards 2, then that coating is not required to meet the VOC limits for Flat, Nonflat, or Nonflat – High Gloss coatings, but is required to meet the VOC limit for the applicable specialty coating listed in the Table of Standards 1 or the Table of Standards 2.</p> <p>5.2.1 Effective until December 31, 2010, with the exception of the specialty coating categories specified in Section 5.2.3.1 through 5.2.3.15, if a coating is recommended for use</p>	The VOC limit of the non-SIP version is at least as stringent as the SIP version. Therefore, the non-SIP version of the rule is more stringent than the SIP version of the rule.

Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
	lacquer sanding sealers) 5.2.2 Metallic pigmented coatings 5.2.3 Shellacs 5.2.4 Fire-retardant coatings 5.2.5 Pretreatment wash primers 5.2.6 Industrial maintenance coatings 5.2.7 Low-solids coatings 5.2.8 Wood preservatives 5.2.9 High temperature coatings 5.2.10 Temperature-indicator safety coatings 5.2.11 Antenna coatings 5.2.12 Antifouling coatings 5.2.13 Flow coatings 5.2.14 Bituminous roof primers 5.2.15 Specialty primers, sealers and undercoaters	in more than one of the specialty coating categories listed in the Table of Standards 1, the most restrictive (or lowest) VOC content limit shall apply. 5.2.2 Effective on and after January 1, 2011, with the exception of the specialty coating categories specified in Sections 5.2.3.2, 5.2.3.3, 5.2.3.5 through 5.2.3.9, and 5.2.3.14 through 5.2.3.18, if a coating is recommended for use in more than one of the specialty coating categories listed in the Table of Standards 2, the most restrictive (or lowest) VOC content limit shall apply. 5.2.3 This requirement applies to: usage recommendations that appear anywhere on the coating container, anywhere on any label or sticker affixed to the container, or in any sales, advertising, or technical literature supplied by a manufacturer or anyone acting on their behalf. 5.2.3.1 Lacquer coatings (including lacquer sanding sealers) 5.2.3.2 Metallic pigmented coatings 5.2.3.3 Shellacs 5.2.3.4 Fire-retardant coatings 5.2.3.5 Pretreatment wash primers 5.2.3.6 Industrial maintenance coatings 5.2.3.7 Low-solids coatings 5.2.3.8 Wood preservatives 5.2.3.9 High temperature coatings 5.2.3.10 Temperature-indicator safety coatings 5.2.3.11 Antenna coatings 5.2.3.12 Antifouling coatings 5.2.3.13 Flow coatings 5.2.3.14 Bituminous roof primers 5.2.3.15 Specialty primers, sealers and undercoaters 5.2.3.16 Aluminum roof coatings 5.2.3.17 Zinc-rich primers 5.2.3.18 Wood Coatings	
	5.3 Sell-Through of Coatings: 5.3.1 A coating manufactured prior to the January 1, 2003 or January 1, 2004 effective date specified for that coating in the Table of Standards may be sold, supplied, or offered for sale for up to three years after the specified effective date. In addition, a coating manufactured before the effective date specified for that coating in the Table of Standards may be applied at any time,	5.3 Sell-Through of Coatings: A coating manufactured prior to the effective date specified for that coating in the Table of Standards 1 or the Table of Standards 2, and that complied with the standards in effect at the time the coating was manufactured, may be sold, supplied, or offered for sale for up to three years after the specified effective date. In addition, a coating manufactured before the effective date	The VOC limit of the non-SIP version is at least as stringent as the SIP version. Section 5.3.2 was removed it is no longer applicable in the SIP version. Therefore, the non-SIP version of the rule is more stringent



Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
	<p>both before and after the specified effective date, so long as the coating complied with the standards in effect at the time the coating was manufactured. This Section 5.3 does not apply to any coating that does not display the date or date-code required by Section 6.1.1.</p> <p>5.3.2 A coating included in an approved Averaging Program that does not comply with the specified limit in the Table of Standards may be sold, supplied, or offered for sale for up to three years after the end of the compliance period specified in the approved Averaging Program. In addition, such a coating may be applied at any time, both during and after the compliance period. This Section 5.3.2 does not apply to any coating that does not display on the container either the statement: "This product is subject to architectural coatings averaging provisions in California" or a substitute symbol specified by the Executive Officer of the California Air Resources Board (ARB). This Section 5.3.2 shall remain in effect until January 1, 2008.</p>	<p>specified for that coating in the Table of Standards 1 or the Table of Standards 2 may be applied at any time, both before and after the specified effective date, so long as the coating complied with the standards in effect at the time the coating was manufactured. This Section 5.3 does not apply to any coating that does not display the date or date-code required by Section 6.1.1.</p>	<p>than the SIP version of the rule.</p>
	<p>5.4 Painting Practices: All architectural coating containers used to apply the contents therein to a surface directly from the container by pouring, siphoning, brushing, rolling, padding, ragging or other means, shall be closed when not in use. These architectural coating containers include, but are not limited to, drums, buckets, cans, pails, trays or other application containers. Containers of any VOC containing materials used for thinning and cleanup shall also be closed when not in use.</p>	<p>5.4 Painting Practices: All architectural coating containers used to apply the contents therein to a surface directly from the container by pouring, siphoning, brushing, rolling, padding, ragging or other means, shall be closed when not in use. These architectural coating containers include, but are not limited to, drums, buckets, cans, pails, trays or other application containers. Containers of any VOC-containing materials used for thinning and cleanup shall also be closed when not in use.</p>	<p>No change in the requirements, therefore, non-SIP version of rule is as stringent as SIP version.</p>
	<p>5.5 Thinning: No person who applies or solicits the application of any architectural coating shall apply a coating that is thinned to exceed the applicable VOC limit specified in the Table of Standards.</p>	<p>5.5 Thinning: No person who applies or solicits the application of any architectural coating shall apply a coating that is thinned to exceed the applicable VOC limit specified in the Table of Standards 1 or the Table of Standards 2.</p>	<p>The VOC limit of the non-SIP version is at least as stringent as the SIP version. Therefore, the non-SIP version of the rule is more stringent than the SIP version of the rule.</p>
	<p>5.6 Rust Preventative Coatings: Effective January 1, 2004, no person shall apply or solicit the application of any rust preventative coating for industrial use, unless such a rust preventative coating complies with the industrial maintenance coating VOC limit specified in the Table of Standards.</p>	<p>5.6 Rust Preventative Coatings: Effective through December 31, 2010, no person shall apply or solicit the application of any rust preventative coating for industrial use, unless such a rust preventative coating complies with the industrial maintenance coating VOC limit specified in the Table of Standards 1.</p>	<p>The VOC limit of the non-SIP version is at least as stringent as the SIP version. Therefore, the non-SIP version of the rule is more stringent than the SIP version of the rule.</p>
	<p>5.7 Coatings Not Listed in the Table of Standards: For any coating that does not meet any of the definitions for the specialty coatings categories listed in the Table of</p>	<p>5.7 Coatings Not Listed in the Table of Standards 1 or the Table of Standards 2: For any coating that does not meet any of the definitions for the specialty</p>	<p>The VOC limit of the non-SIP version is at least as stringent as the SIP version.</p>

Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
	Standards, the VOC content limit shall be determined by classifying the coating as a flat coating or a nonflat coating, based on its gloss, as defined in Sections 3.21, 3.36 and 3.37 and the corresponding flat or nonflat VOC limit shall apply.	coatings categories listed in the Table of Standards 1 or the Table of Standards 2, the VOC content limit shall be determined by classifying the coating as a Flat, Nonflat, or Nonflat – High Gloss coating, based on its gloss, and the corresponding Flat, Nonflat, or Nonflat – High Gloss VOC limit in the Table of Standards 1 or the Table of Standards 2 shall apply.	Therefore, the non-SIP version of the rule is more stringent than the SIP version of the rule.
	5.8 Lacquers: Notwithstanding the provisions of Section 3.1, a person or facility may add up to 10 percent by volume of VOC to a lacquer to avoid blushing of the finish during days with relative humidity greater than 70 percent and temperature below 65°F, at the time of application, provided that the coating contains acetone and no more than 550 grams of VOC per liter of coating, less water and exempt compounds, prior to the addition of VOC.	---	This section has been removed. The operation is required to meet the lacquer VOC limit regardless of temperature and humidity. Therefore, non-SIP version of rule is as stringent as SIP version
	5.9 Averaging Compliance Option: On or after January 1, 2003, in lieu of compliance with the specified limits in The Table of Standards for floor coatings; industrial maintenance coatings; primers, sealers, and undercoaters; quick-dry primers, sealers, and undercoaters; quick-dry enamels; roof coatings; bituminous roof coatings; rust preventative coatings; stains; waterproofing sealers, as well as flats and non-flats (excluding recycled coatings), manufacturers may average designated coatings such that their actual cumulative emissions from the averaged coatings are less than or equal to the cumulative emissions that would have been allowed under those limits over a compliance period not to exceed one year. Such manufacturers must also comply with the averaging provisions contained in Section 8.0, as well as maintain and make available for inspection records for at least three years after the end of the compliance period. This Section 5.9 and Section 8.0 shall cease to be effective on January 1, 2005, after which averaging will no longer be allowed.	---	This section is removed from the non-SIP version, it is no longer applicable. Therefore, non-SIP version of rule is as stringent as SIP version.
	---	5.8 Prior to January 1, 2011, any coating that meets a definition in Section 3.0 for a coating category listed in the Table of Standards 2 and complies with the applicable VOC limit in the Table of Standards 2 and with Sections 5.2 and 6.1 (including those provision of Section 6.1 otherwise effective on January 1, 2011) shall be considered in compliance with this rule.	Table of Standards 2 is more stringent than the VOC limits of Table of Standards in the SIP-Approved version. Therefore, non-SIP version of rule is as stringent as SIP version.
Table of Standards (See Attachment F for Table)		Table of Standards 1 (Effective through 12/31/10) (See Attachment F for Table)	The non-SIP rule requirements are the same as the Table of Standards in the SIP

Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
			<p>approved rule, except Table of Standards 1 expires at which time Table of Standards 2 is in effect. As discussed below these standards are more stringent. Therefore, non-SIP version of rule is as stringent as SIP version.</p> <p>The requirements of Table of Standards 2 are more stringent than the Table of Standards in the SIP rule. Therefore, non-SIP version of rule is as stringent as SIP version.</p>
<p><b>6.0 Administrative Requirements</b></p>	<p>6.1 Labeling Requirements: Each manufacturer of any architectural coating subject to this rule shall display the information listed in Sections 6.1.1 through 6.1.9 on the coating container (or label) in which the coating is sold or distributed.</p> <p>6.1.1 Date Code: The date the coating was manufactured, or a date code representing the date, shall be indicated on the label, lid or bottom of the container. If the manufacturer uses a date code for any coating, the manufacturer shall file an explanation of each code with the Executive Officer of the ARB.</p> <p>6.1.2 Thinning Recommendations: A statement of the manufacturer's recommendation regarding thinning of the coating shall be indicated on the label or lid of the container. This requirement does not apply to the thinning of architectural coatings with water. If thinning of the coating prior to use is not necessary, the recommendation must specify that the coating is to be applied without thinning.</p> <p>6.1.3 VOC Content: Each container of any coating subject to this rule shall display either the maximum or actual VOC content of the coating, as supplied, including the maximum thinning as recommended by the manufacturer. VOC content shall be displayed in grams of VOC per liter of coating. VOC content displayed shall be calculated using product formulation data, or shall be determined using the test methods in Section</p> <p>6.3.1. The equations in Sections 3.25 or 3.26, as appropriate, shall be used to calculate VOC content.</p> <p>6.1.4 Industrial Maintenance Coatings: In</p>	<p>6.1 Labeling Requirements: Each manufacturer of any architectural coating subject to this rule shall display the information listed in Sections 6.1.1 through 6.1.14 on the coating container (or label) in which the coating is sold or distributed.</p> <p>6.1.1 Date Code: The date the coating was manufactured, or a date code representing the date, shall be indicated on the label, lid or bottom of the container. If the manufacturer uses a date code for any coating, the manufacturer shall file an explanation of each code with the Executive Officer of the ARB.</p> <p>6.1.2 Thinning Recommendations: A statement of the manufacturer's recommendation regarding thinning of the coating shall be indicated on the label or lid of the container. This requirement does not apply to the thinning of architectural coatings with water. If thinning of the coating prior to use is not necessary, the recommendation must specify that the coating is to be applied without thinning.</p> <p>6.1.3 VOC Content: Each container of any coating subject to this rule shall display one of the following values, in grams of VOC per liter of coating:</p> <p>6.1.3.1 Maximum VOC Content, as determined from all potential product formulations; or</p> <p>6.1.3.2 VOC Content, as determined from actual formulation data; or</p> <p>6.1.3.3 VOC Content, as determined using the test methods in Section 6.3.2.</p> <p>If the manufacturer does not</p>	<p>The non-SIP approved rule contain sections listed in the SIP rule plus additional requirements not found in the SIP version. Therefore, non-SIP version of rule is as stringent as SIP version.</p>

Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
	<p>addition to the information specified in Sections 6.1.1, 6.1.2 and 6.1.3, each manufacturer of any industrial maintenance coating subject to this rule shall display on the label or lid of the container in which the coating is sold or distributed one or more of the following descriptions listed in Section 6.1.4.1 through 6.1.4.3.</p> <p>6.1.4.1 "For industrial use only"  6.1.4.2 "For professional use only"  6.1.4.3 "Not for residential use" or "Not intended for residential use"</p> <p>6.1.5 Clear Brushing Lacquers: Effective January 1, 2003, the labels of all clear brushing lacquers shall prominently display the statements "For brush application only," and "This product must not be thinned or sprayed."</p> <p>6.1.6 Rust Preventative Coatings: Effective January 1, 2003, the labels of all rust preventative coatings shall prominently display the statement "For Metal Substrates Only"</p> <p>6.1.7 Specialty Primers, Sealers and Undercoaters: Effective January 1, 2003, the labels of all specialty primers, sealers and undercoaters shall prominently display one or more of the descriptions listed in Section</p> <p>6.1.7.1 through 6.1.7.5.  6.1.7.1 For blocking stains.  6.1.7.2 For fire-damaged substrates.  6.1.7.3 For smoke-damaged substrates.  6.1.7.4 For water-damaged substrates.  6.1.7.5 For excessively chalky substrates.</p> <p>6.1.8 Quick Dry Enamels: Effective January 1, 2003, the labels of all quick dry enamels shall prominently display the words "Quick Dry" and the dry hard time.</p> <p>6.1.9 Non-flat – High Gloss Coatings: Effective January 1, 2003, the labels of all non-flat – high gloss coatings shall prominently display the words "High Gloss".</p>	<p>recommend thinning, the container must display the VOC Content, as supplied. If the manufacturer recommends thinning, the container must display the VOC Content, including the maximum amount of thinning solvent recommended by the manufacturer. If the coating is a multicomponent product, the container must display the VOC content as mixed or catalyzed. If the coating contains silanes, siloxanes, or other ingredients that generate ethanol or other VOCs during the curing process, the VOC content must include the VOCs emitted during curing.</p> <p>6.1.4 Faux Finishing Coatings: Effective January 1, 2011, the labels of all clear topcoat Faux Finishing coatings shall prominently display the statement "This product can only be sold or used as part of a Faux Finishing coating system".</p> <p>6.1.5 Industrial Maintenance Coatings: Each manufacturer of any industrial maintenance coating subject to this rule shall display on the label or lid of the container in which the coating is sold or distributed one or more of the following descriptions listed in Section 6.1.5.1 through 6.1.5.3.  6.1.5.1 "For industrial use only"  6.1.5.2 "For professional use only"  6.1.5.3 "Not for residential use" or "Not intended for residential use"</p> <p>6.1.6 Clear Brushing Lacquers: The labels of all clear brushing lacquers shall prominently display the statements "For brush application only," and "This product must not be thinned or sprayed." (Category deleted effective January 1, 2011.)</p> <p>6.1.7 Rust Preventative Coatings: The labels of all rust preventative coatings shall prominently display the statement "For Metal Substrates Only".</p> <p>6.1.8 Specialty Primers, Sealers and Undercoaters: Effective until December 31, 2010, the labels of all specialty primers, sealers and undercoaters shall prominently display one or more of the descriptions listed in Section 6.1.8.1 through 6.1.8.5. Effective on and after January 1, 2011, the labels of all specialty primers, sealers, and undercoaters shall prominently display one or more of the descriptions listed in Sections 6.1.8.1 through 6.1.8.3. On and after January</p>	

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		<p>1, 2011, Sections 6.1.8.4 and 6.1.8.5 will be no longer effective.</p> <p>6.1.8.1 For fire-damaged substrates.</p> <p>6.1.8.2 For smoke-damaged substrates.</p> <p>6.1.8.3 For water-damaged substrates.</p> <p>6.1.8.4 For excessively chalky substrates.</p> <p>6.1.8.5 For blocking stains.</p> <p>6.1.9 Quick Dry Enamels: The labels of all quick dry enamels shall prominently display the words "Quick Dry" and the dry hard time. (Category deleted effective January 1, 2011.)</p> <p>6.1.10 Reactive Penetrating Sealers: Effective January 1, 2011, the labels of all Reactive Penetrating Sealers shall prominently display the statement "Reactive Penetrating Sealer."</p> <p>6.1.11 Stone Consolidants: Effective January 1, 2011, the labels of all Stone Consolidants shall prominently display the statement "Stone Consolidant - For Professional Use Only."</p> <p>6.1.12 Nonflat- High Gloss Coatings: The labels of all Nonflat - high gloss coatings shall prominently display the words "High Gloss."</p> <p>6.1.13 Wood Coatings: Effective January 1, 2011, the labels of all Wood Coatings shall prominently display the statement "For Wood Substrates Only."</p> <p>6.1.14 Zinc Rich Primers: Effective January 1, 2011, the labels of all Zinc Rich Primers shall prominently display one or more of the following descriptions listed in Section 6.1.14.1 through 6.1.14.3.</p> <p>6.1.14.1 "For industrial use only"</p> <p>6.1.14.2 "For professional use only"</p> <p>6.1.14.3 "Not for residential use" or "Not intended for residential use"</p>	
	<p>6.2 Reporting Requirements</p> <p>6.2.1 Clear Brushing Lacquers: Each manufacturer of clear brushing lacquers shall, on or before April 1 of each calendar year beginning in the year 2004, submit an annual report to the Executive Officer of the ARB. The report shall specify the number of gallons of clear brushing lacquers sold in the State during the preceding calendar year, and shall describe the method used by the manufacturer to calculate State sales.</p> <p>6.2.2 Rust Preventative Coatings: Each</p>	<p>6.2 Reporting Requirements</p> <p>The reporting requirements specified in Sections 6.2.1 through 6.2.6 shall apply until December 31, 2010.</p> <p>6.2.1 Clear Brushing Lacquers: Each manufacturer of clear brushing lacquers shall, on or before April 1 of each calendar year beginning in the year 2004, submit an annual report to the Executive Officer of the ARB. The report shall specify the number of gallons of clear brushing lacquers</p>	<p>Until December 31, 2010 both versions of the rule have the same reporting requirements. After that date the non-SIP approved rule includes very specific information to be kept and is required for all architectural coatings. Therefore, non-SIP version of rule is as stringent as SIP</p>

Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
	<p>manufacturer of rust preventative coatings shall, on or before April 1 of each calendar year beginning in the year 2004, submit an annual report to the Executive Officer of the ARB. The report shall specify the number of gallons of rust preventative coatings sold in the State during the preceding calendar year, and shall describe the method used by the manufacturer to calculate State sales.</p> <p>6.2.3 Specialty Primers, Sealers and Undercoaters: Each manufacturer of specialty primers, sealers and undercoaters shall, on or before April 1 of each calendar year beginning in the year 2004, submit an annual report to the Executive Officer of the ARB. The report shall specify the number of gallons of specialty primers, sealers and undercoaters sold in the State during the preceding calendar year, and shall describe the method used by the manufacturer to calculate State sales.</p> <p>6.2.4 Toxic Exempt Compounds: For each architectural coating that contains perchloroethylene or methylene chloride, the manufacturer shall, on or before April 1 of each calendar year beginning in the year 2004, submit an annual report to the Executive Officer of the ARB the following information for products sold in the State during the preceding year:</p> <p>6.2.4.1 the product brand name and a copy of the product label with legible usage instructions;</p> <p>6.2.4.2 the product category listed in the Table of Standards to which the coating belongs;</p> <p>6.2.4.3 the total sales in California during the calendar year to the nearest gallon;</p> <p>6.2.4.4 the volume percent, to the nearest 0.10 percent, of perchloroethylene and methylene chloride in the coating.</p> <p>6.2.5 Recycled Coatings: Manufacturers of recycled coatings must submit a letter to the Executive Officer of the ARB certifying their status as a Recycled Paint Manufacturer. The manufacturer shall, on or before April 1 of each calendar year beginning with the year 2004, submit an annual report to the Executive Officer of the ARB. The report shall include, for all recycled coatings, the total number of gallons distributed in the State during the preceding year, and shall describe the method used by the manufacturer to calculate State distribution.</p> <p>6.2.6 Bituminous Coatings: Each manufacturer of bituminous roof coatings or bituminous roof primers shall, on or</p>	<p>sold in the State during the preceding calendar year, and shall describe the method used by the manufacturer to calculate State sales.</p> <p>6.2.2 Rust Preventative Coatings: Each manufacturer of rust preventative coatings shall, on or before April 1 of each calendar year beginning in the year 2004, submit an annual report to the Executive Officer of the ARB. The report shall specify the number of gallons of rust preventative coatings sold in the State during the preceding calendar year, and shall describe the method used by the manufacturer to calculate State sales.</p> <p>6.2.3 Specialty Primers, Sealers and Undercoaters: Each manufacturer of specialty primers, sealers and undercoaters shall, on or before April 1 of each calendar year beginning in the year 2004, submit an annual report to the Executive Officer of the ARB. The report shall specify the number of gallons of specialty primers, sealers and undercoaters sold in the State during the preceding calendar year, and shall describe the method used by the manufacturer to calculate State sales.</p> <p>6.2.4 Toxic Exempt Compounds: For each architectural coating that contains perchloroethylene or methylene chloride, the manufacturer shall, on or before April 1 of each calendar year beginning in the year 2004, submit an annual report to the Executive Officer of the ARB the following information for products sold in the State during the preceding year:</p> <p>6.2.4.1 the product brand name and a copy of the product label with legible usage instructions;</p> <p>6.2.4.2 the product category listed in the Table of Standards 1 or the Table of Standards 2 to which the coating belongs;</p> <p>6.2.4.3 the total sales in California during the calendar year to the nearest gallon;</p> <p>6.2.4.4 the volume percent, to the nearest 0.10 percent, of perchloroethylene and methylene chloride in the coating.</p> <p>6.2.5 Recycled Coatings: Manufacturers of recycled coatings must submit a letter to the Executive Officer of the ARB certifying their status as a Recycled Paint Manufacturer. The manufacturer shall, on or before April</p>	<p>version.</p>

Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
	<p>before April 1 of each calendar year beginning with the year 2004, submit an annual report to the Executive Officer of ARB. The report shall specify the number of gallons of bituminous roof coatings or bituminous roof primers sold in the State during the preceding calendar year, and shall describe the method used by the manufacturer to calculate State sales.</p>	<p>1 of each calendar year beginning with the year 2004, submit an annual report to the Executive Officer of the ARB. The report shall include, for all recycled coatings, the total number of gallons distributed in the State during the preceding year, and shall describe the method used by the manufacturer to calculate State distribution.</p> <p>6.2.6 Bituminous Coatings: Each manufacturer of bituminous roof coatings or bituminous roof primers shall, on or before April 1 of each calendar year beginning with the year 2004, submit an annual report to the Executive Officer of ARB. The report shall specify the number of gallons of bituminous roof coatings or bituminous roof primers sold in the State during the preceding calendar year, and shall describe the method used by the manufacturer to calculate state sales.</p> <p>6.2.7 Effective on and after January 1, 2011, Sales Data: All sales data listed in Sections 6.2.7.1 to 6.2.7.14 shall be maintained on-site by the responsible official for a minimum of three years. A responsible official from each manufacturer shall upon request of the Executive Officer of the ARB, or his or her delegate, provide data concerning the distribution and sales of architectural coatings. Sales data submitted by the responsible official to the Executive Officer of the ARB may be claimed as confidential, and such information shall be handled in accordance with the procedures specified in Title 17, California Code of Regulations Sections 91000-91022. The responsible official shall within 180 days provide information, including, but not limited to the data listed in Sections 6.2.7.1 through 6.2.7.14:</p> <p>6.2.7.1 the name and mailing address of the manufacturer;</p> <p>6.2.7.2 the name, address and telephone number of a contact person;</p> <p>6.2.7.3 the name of the coating product as it appears on the label and the applicable coating category;</p> <p>6.2.7.4 whether the product is marketed for interior or exterior use or both;</p> <p>6.2.7.5 the number of gallons sold in California in containers greater than one liter (1.057 quart) and equal to or less</p>	

Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
		<p>than one liter (1.057 quart);</p> <p>6.2.7.6 the VOC Actual content and VOC Regulatory content in grams per liter. If thinning is recommended, list the VOC Actual content and VOC Regulatory content after maximum recommended thinning. If containers less than one liter have a different VOC content than containers greater than one liter, list separately. If the coating is a multi-component product, provide the VOC content as mixed or catalyzed;</p> <p>6.2.7.7 the names and CAS numbers of the VOC constituents in the product;</p> <p>6.2.7.8 the names and CAS numbers of any compounds in the product specifically exempted from the VOC definition;</p> <p>6.2.7.9 whether the product is marketed as solvent-borne, waterborne, or 100% solids;</p> <p>6.2.7.10 description of resin or binder in the product;</p> <p>6.2.7.11 whether the coating is a single-component or multi-component product;</p> <p>6.2.7.12 the density of the product in pounds per gallon;</p> <p>6.2.7.13 the percent by weight of: solids, all volatile materials, water, and any compounds in the product specifically exempted from the VOC definition; and</p> <p>6.2.7.14 the percent by volume of: solids, water, and any compounds in the product specifically exempted from the VOC definition.</p>	
	<p>6.3 Test Methods</p> <p>6.3.1 VOC Content of Coatings: To determine the physical properties of a coating in order to perform the calculations in Section 3.26 and 3.27, the reference method for VOC content is U.S. EPA Method 24, except as provided in Sections 6.3.2 and 6.3.15. An alternative method to determine the VOC content of coatings is SCAQMD Method 304-91 (Revised February 1996), incorporated by reference in Section 6.3.14. The exempt compounds content shall be determined by SCAQMD Method 303-91 (Revised August 1996), incorporated by reference in Section</p>	<p>6.3 Test Methods</p> <p>The test methods listed below shall be used to demonstrate compliance with this rule. Alternate equivalent test methods may be used provided the test methods have been approved by the APCO and EPA.</p> <p>6.3.1 Calculation of VOC Content: For the purpose of determining compliance with the VOC content limits in the Table of Standards 1 or the Table of Standards 2, the VOC content of a coating shall be determined as defined in Section 3.77, 3.78, or 3.79 as appropriate. The VOC content of a tint base shall be determined without</p>	<p>The non-SIP version includes all the requirements of the SIP version. Therefore, the non-SIP version of the rule is more stringent than the SIP version of the rule.</p>



Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
	<p>6.3.12. To determine the VOC content of a coating, the manufacturer may use U.S. EPA Method 24, or an alternative method as provided in Section 6.3.2, formulation data, or any other reasonable means for predicting that the coating has been formulated as intended (e.g., quality assurance checks, recordkeeping). However, if there are any inconsistencies between the results of a Method 24 test and any other means for determining VOC content, the Method 24 test results will govern, except when an alternative method is approved as specified in Section 6.3.2. The District Air Pollution Control Officer (APCO) may require the manufacturer to conduct a Method 24 analysis.</p> <p>6.3.2 Alternative Test Methods: Other test methods demonstrated to provide results that are acceptable for purposes of determining compliance with Section 6.3.1, after review and approved in writing by the staffs of the District, the ARB and the U.S. EPA, may also be used. 6.3.3 Methacrylate Traffic Marking Coatings: Analysis of methacrylate multicomponent coatings used as traffic marking coatings shall be conducted according to a modification of U.S. EPA Method 24 (40 CFR 59, subpart D, Appendix A), incorporated by reference in Section 6.3.15. This method has not been approved for methacrylate multicomponent coatings used for other purposes than as traffic marking coatings or for other classes of multicomponent coatings.</p> <p>6.3.4 Flame Spread Index: The flame spread index of a fire-retardant coating shall be determined by ASTM Designation E 84-99, "Standard Test Method for Surface Burning Characteristics of Building Materials"(see Section 3, Fire-Retardant Coating).</p> <p>6.3.5 Fire Resistance Rating: The fire resistance rating of a fire-resistive coating shall be determined by ASTM Designation E 119-98, "Standard Test Methods for Fire Tests of Building Construction Materials"(see Section 3, Fire-Resistive Coating).</p> <p>6.3.6 Gloss Determination: The gloss of a coating shall be determined by ASTM Designation D 523-89 (1999), "Standard Test Method for Specular Gloss"(see Section 3, Flat Coating, Nonflat Coating, Nonflat-High Gloss Coating and Quick-Dry Enamel).</p> <p>6.3.7 Metal Content of Coatings: The</p>	<p>colorant that is added after the tint base is manufactured. If the manufacturer does not recommend thinning, the VOC Content must be calculated for the product as supplied. If the manufacturer recommends thinning, the VOC Content must be calculated including the maximum amount of thinning solvent recommended by the manufacturer. If the coating is a multi-component product, the VOC content must be calculated as mixed or catalyzed. If the coating contains silanes, siloxanes, or other ingredients that generate ethanol or other VOC during the curing process, the VOC content must include the VOCs emitted during curing.</p> <p>6.3.2 VOC Content of Coatings: To determine the physical properties of a coating in order to perform the calculations in Section 3.77 and 3.79, the reference method for VOC content is EPA Method 24, except as provided in Sections 6.3.3 and 6.3.16. An alternative method to determine the VOC content of coatings is SCAQMD Method 304-91 (Revised February 1996). The exempt compounds content shall be determined by SCAQMD Method 303-91 (Revised 1993), BAAQMD Method 43 (Revised 1996), or BAAQMD Method 41 (Revised 1995), as applicable. To determine the VOC content of a coating, the manufacturer may use EPA Method 24, or an alternative method as provided in Section 6.3.3, formulation data, or any other reasonable means for predicting that the coating has been formulated as intended (e.g., quality assurance checks, recordkeeping). However, if there are any inconsistencies between the results of EPA Method 24 test and any other means for determining VOC content, the EPA Method 24 test results will govern, except when an alternative method is approved as specified in Section 6.3.3. The District Air Pollution Control Officer (APCO) may require the manufacturer to conduct an EPA Method 24 analysis.</p> <p>6.3.3 Alternative Test Methods: Other test methods demonstrated to provide results that are acceptable for purposes of determining compliance with Section 6.3.2 4, after review and approved in writing by the staffs of the District, ARB and EPA, may also be used.</p>	

Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
	<p>metallic content of a coating shall be determined by SCAQMD Method 318-95, Determination of Weight Percent Elemental Metal in Coatings by X-Ray Diffraction, <i>SCAQMD Laboratory Methods of Analysis for Enforcement Samples</i> (see Section 3, Metallic Pigmented Coating).</p> <p>6.3.8 Acid Content of Coatings: The acid content of a coating shall be determined by ASTM Designation D 1613-96, "Standard Test Method for Acidity in Volatile Solvents and Chemical Intermediates Used in Paint, Varnish, Lacquer and related products"(see Section 3, Pre-Treatment Wash Primer).</p> <p>6.3.9 Drying Times: The set-to-touch, dry-hard, dry-to-touch and dry-to-recoat times of a coating shall be determined by ASTM Designation D 1640-95, "Standard Test Methods for Drying, Curing, or Film Formation of Organic Coatings at Room Temperature" (see Section 3, Quick-Dry Enamel and Quick-Dry Primer, Sealer and Undercoater) The tack-free time of a quickdry enamel coating shall be determined by the Mechanical Test Method of ASTM Designation D 1640-95.</p> <p>6.3.10 Surface Chalkiness: The chalkiness of a surface shall be determined using ASTM Designation D4214-98, "Standard Test Methods for Evaluating the Degree of Chalking of Exterior Paint Films"(see Section 3, Specialty Primer, Sealer and Undercoater).</p> <p>6.3.11 Exempt Compounds—Siloxanes: Exempt compounds that are cyclic, branched, or linear completely methylated siloxanes, shall be analyzed as exempt compounds for compliance with Section 6 by BAAQMD Method 43, "Determination of Volatile Methylsiloxanes in Solvent-Based Coatings, Inks, and Related Materials," <i>BAAQMD Manual of Procedures</i>, Volume III, adopted 11/6/96 (see Section 3, Volatile Organic Compound, and Section 6.3.1).</p> <p>6.3.12 Exempt Compounds—Parachlorobenzotrifluoride (PCBTF): The exempt compound parachlorobenzotrifluoride, shall be analyzed as an exempt compound for compliance with Section 6 by BAAQMD Method 41, "Determination of Volatile Organic Compounds in Solvent Based Coatings and Related Materials Containing Parachlorobenzotrifluoride," <i>BAAQMD</i></p>	<p>6.3.4 Methacrylate Traffic Marking Coatings: Analysis of methacrylate multicomponent coatings used as traffic marking coatings shall be conducted according to a modification of EPA Method 24 (40 CFR 59, subpart D, Appendix A). This method has not been approved for methacrylate multicomponent coatings used for other purposes than as traffic marking coatings or for other classes of multicomponent coatings.</p> <p>6.3.5 Flame Spread Index: The flame spread index of a fire-retardant coating shall be determined by ASTM E84-07, "Standard Test Method for Surface Burning Characteristics of Building Materials" (see Section 3.0, Fire-Retardant Coating).</p> <p>6.3.6 Fire Resistance Rating: The fire resistance rating of a fire-resistive coating shall be determined by ASTM E119-07, "Standard Test Methods for Fire Tests of Building Construction Materials" (see Section 3.0, Fire-Resistive Coating).</p> <p>6.3.7 Gloss Determination: The gloss of a coating shall be determined by ASTM D523-89 (1999), "Standard Test Method for Specular Gloss" (see Section 3.0, Flat Coating, Nonflat Coating, Nonflat-High Gloss Coating and Quick-Dry Enamel).</p> <p>6.3.8 Metal Content of Coatings: The metallic content of a coating shall be determined by SCAQMD Method 318-95, Determination of Weight Percent Elemental Metal in Coatings by X-Ray Diffraction, <i>SCAQMD Laboratory Methods of Analysis for Enforcement Samples</i> (see Section 3.0, Metallic Pigmented Coating, Aluminum Roof Coating and Faux Finish).</p> <p>6.3.9 Acid Content of Coatings: The acid content of a coating shall be determined by ASTM D1613-06, "Standard Test Method for Acidity in Volatile Solvents and Chemical Intermediates Used in Paint, Varnish, Lacquer and related products" (see Section 3.0, Pre-Treatment Wash Primer).</p> <p>6.3.10 Drying Times: The set-to-touch, dry-hard, dry-to-touch and dry-to-recoat times of a coating shall be determined by ASTM D1640-95, "Standard Test Methods for Drying, Curing, or Film Formation of Organic Coatings at Room Temperature" (see Section 3.0, Quick-Dry Enamel and Quick-Dry Primer, Sealer and</p>	

Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
	<p><i>Manual of Procedures</i>, Volume III, adopted 12/20/95 (see Section 3, Volatile Organic Compound, and Section 6.3.1).</p> <p>6.3.13 Exempt Compounds: The content of compounds under U.S. EPA Method 24 shall be analyzed by SCAQMD Method 303-91 (Revised 1996), "Determination of Exempt Compounds," <i>SCAQMD Laboratory Methods of Analysis for Enforcement Samples</i> (see Section 3, Volatile Organic Compound, and Section 6.3.1).</p> <p>6.3.14 VOC Content of Coatings: The VOC content of a coating shall be determined by U.S. EPA Method 24 as it exists in appendix A of 40 <i>Code of Federal Regulations</i> (CFR) part 60, "Determination of Volatile Matter Content, Water Content, Density, Volume Solids and Weight Solids of Surface Coatings"(see Section 6.3.1).</p> <p>6.3.15 Alternative VOC Content of Coatings: The VOC content of coatings may be analyzed either by U.S. EPA Method 24 or SCAQMD Method 304-91 (Revised 1996), "Determination of Volatile Organic Compounds (VOC) in Various Materials," <i>SCAQMD Laboratory Methods of Analysis for Enforcement Samples</i> (see Section 6.3.1).</p> <p>6.3.16 Methacrylate Traffic Marking Coatings: The VOC content of methacrylate multicomponent coatings used as traffic marking coatings shall be analyzed by the procedures in 40 CFR part 59, subpart D, appendix A, "Determination of Volatile Matter Content of Methacrylate Multicomponent Coatings Used as Traffic Marking Coatings" (September 11, 1998) (see Section 6.3.3).</p>	<p>Undercoater) The tack-free time of a quick-dry enamel coating shall be determined by the Mechanical Test Method of ASTM D1640-95. (Category deleted effective January 1, 2011.)</p> <p>6.3.11 Surface Chalkiness: The chalkiness of a surface shall be determined using ASTM D4214-98, "Standard Test Methods for Evaluating the Degree of Chalking of Exterior Paint Films"(see Section 3, Specialty Primer, Sealer and Undercoater). (Category deleted effective January 1, 2011.)</p> <p>6.3.12 Exempt Compounds—Siloxanes: Exempt compounds that are cyclic, branched, or linear completely methylated siloxanes, shall be analyzed as exempt compounds for compliance with Section 6 by BAAQMD Method 43, "Determination of Volatile Methylsiloxanes in Solvent-Based Coatings, Inks, and Related Materials," <i>BAAQMD Manual of Procedures</i>, Volume III, adopted 11/6/96 (see Section 3.0, Volatile Organic Compound, and Section 6.3.2).</p> <p>6.3.13 Exempt Compounds—Parachlorobenzotrifluoride (PCBTF): The exempt compound parachlorobenzotrifluoride, shall be analyzed as an exempt compound for compliance with Section 6 by BAAQMD Method 41, "Determination of Volatile Organic Compounds in Solvent Based Coatings and Related Materials Containing Parachlorobenzotrifluoride," <i>BAAQMD Manual of Procedures</i>, Volume III, adopted 12/20/95 (see Section 3.0, Volatile Organic Compound, and Section 6.3.2).</p> <p>6.3.14 Exempt Compounds: The content of compounds under U.S. EPA Method 24 shall be analyzed by SCAQMD Method 303-91 (Revised 1993), "Determination of Exempt Compounds," <i>SCAQMD Laboratory Methods of Analysis for Enforcement Samples</i> (see Section 3.0, Volatile Organic Compound, and Section 6.3.2).</p> <p>6.3.15 VOC Content of Coatings: The VOC content of a coating shall be determined by EPA Method 24 as it exists in appendix A of 40 <i>Code of Federal Regulations</i> (CFR) part 60, "Determination of Volatile Matter Content, Water Content, Density, Volume Solids and Weight Solids of Surface Coatings" (see Section</p>	

Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
		<p>6.3.2).</p> <p>6.3.16 Alternative VOC Content of Coatings: The VOC content of coatings may be analyzed either by U.S. EPA Method 24 or SCAQMD Method 304-91 (Revised 1996), "Determination of Volatile Organic Compounds (VOC) in Various Materials," <i>SCAQMD Laboratory Methods of Analysis for Enforcement Samples</i>.</p> <p>6.3.17 Methacrylate Traffic Marking Coatings: The VOC content of methacrylate multicomponent coatings used as traffic marking coatings shall be analyzed by the procedures in 40 CFR part 59, subpart D, appendix A, "Determination of Volatile Matter Content of Methacrylate Multicomponent Coatings Used as Traffic Marking Coatings" (September 11, 1998).</p> <p>6.3.18 Hydrostatic Pressure for Basement Specialty Coatings: The hydrostatic pressure resistance for basement specialty coatings shall be analyzed using ASTM D7088-04, "Standard Practice for Resistance to Hydrostatic Pressure for Coatings Used in Below Grade Applications Applied to Masonry".</p> <p>6.3.19 Tub and Tile Refinish Coating Adhesion: The adhesion of tub and tile coating shall be determined by ASTM D4585-99, "Standard Practice for Testing Water Resistance of Coatings Using Controlled Condensation" and ASTM D3359-02, "Standard Test Methods for Measuring Adhesion by Tape Test".</p> <p>6.3.20 Tub and Tile Refinish Coating Hardness: The hardness of tub and tile refinish coating shall be determined by ASTM D3363-05, "Standard Test Method for Film Hardness by Pencil Test".</p> <p>6.3.21 Tub and Tile Refinish Coating Abrasion Resistance: Abrasion resistance of tub and tile refinish coating shall be analyzed by ASTM D4060-07, "Standard Test Methods for Abrasion Resistance of Organic Coatings by the Taber Abraser".</p> <p>6.3.22 Tub and Tile Refinish Coating Water Resistance: Water resistance of tub and tile refinish coatings shall be determined by ASTM D4585-99, "Standard Practice for Testing Water Resistance of Coatings Using Controlled Condensation" and ASTM D714-02e1, "Standard Test Method for Evaluating Degree of Blistering of</p>	

Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
		<p>Paints".</p> <p>6.3.23 Waterproofing Membrane: Waterproofing membrane shall be tested by ASTM C836-06, "Standard Specification for High Solids Content, Cold Liquid-Applied Elastomeric Waterproofing Membrane for Use with Separate Wearing Course".</p> <p>6.3.24 Mold and Mildew Growth for Basement Specialty Coatings: Mold and mildew growth resistance for basement specialty coatings shall be determined by ASTM D3273-00, "Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber" and ASTM D3274-95, "Standard Test Method for Evaluating Degree of Surface Disfigurement of Paint Films by Microbial (Fungal or Algal) Growth or Soil and Dirt Accumulation".</p> <p>6.3.25 Reactive Penetrating Sealer Water Repellency: Reactive penetrating sealer water repellency shall be analyzed by ASTM C67-07, "Standard Test Methods for Sampling and Testing Brick and Structural Clay Tile"; or ASTM C97-02, "Standard Test Methods for Absorption and Bulk Specific Gravity of Dimension Stone"; or ASTM C140-06, "Standard Test Methods for Sampling and Testing Concrete Masonry Units and Related Units".</p> <p>6.3.26 Reactive Penetrating Sealer Water Vapor Transmission: Reactive penetrating sealer water vapor transmission shall be analyzed ASTM E96/E96M-05, "Standard Test Method for Water Vapor Transmission of Materials".</p> <p>6.3.27 Reactive Penetrating Sealer - Chloride Screening Applications: Reactive penetrating sealers shall be analyzed by National Cooperative Highway Research Report 244 (1981), "Concrete Sealers for the Protection of Bridge Structures".</p> <p>6.3.28 Stone Consolidants: Stone consolidants shall be tested using ASTM E2167-01, "Standard Guide for Selection and Use of Stone Consolidants".</p>	
7.0 Compliance Schedule	Persons subject to this rule shall be in compliance with this rule by October 31, 2001.	Persons subject to this rule shall be in compliance with this rule by the dates specified within the rule.	No change in the requirements, therefore, non-SIP version of rule is as stringent as SIP version.

Requirement Category	SIP Version of Rule 4601 (10/31/01)	Non-SIP Version of Rule 4601 (12/17/09)	Conclusion
8.0 Averaging Compliance Option	<p>8.1 On or after January 1, 2003, in lieu of compliance with the specified limits in the Table of Standards for floor coatings; industrial maintenance coatings; primers, sealers, and undercoaters; quick-dry primers, sealers, and undercoaters; quick-dry enamels; roof coatings; rust preventative coatings; stains; waterproofing sealers, as well as flats and non-flats (excluding recycled coatings), manufacturers may average designated coatings such that their actual cumulative emissions from the averaged coatings are less than or equal to the cumulative emissions that would have been allowed under those limits over a compliance period not to exceed one year. Such manufacturers must also comply with the averaging provisions contained in this Section, as well as maintain and make available for inspection records for at least three years after the end of the compliance period. This Section shall cease to be effective on January 1, 2005, after which averaging will no longer be allowed.</p> <p>Per Section 8.1, averaging is no longer applicable. Therefore, Section 8.2 through 8.14 are not listed.</p>		No change in the requirements, therefore, non-SIP version of rule is as stringent as SIP version.

District Rule 4601 was amended (12/17/2009). As analyzed, each amended section of the non-SIP version of the rule is at least as stringent as, or more stringent than the corresponding section of the SIP version of the rule. Therefore, it is concluded that overall the non-SIP version of the rule is more stringent than the SIP version of the rule.

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# ATTACHMENT E

Table of Standards in Rule 4601

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**TABLE OF STANDARDS 1 (Effective through 12/31/10)**

Limits are expressed in grams of VOC per liter<sup>a</sup> of coating thinned to the manufacturer's maximum recommendation, excluding the volume of any water, exempt compounds, or colorant added to tint bases. Manufacturer's maximum recommendation means the maximum recommendation for thinning that is indicated on the label or lid of the coating container.

<b>COATING CATEGORY</b>	<b>Effective Date: 1/1/2003</b>
Flat Coatings	100
Nonflat Coatings	150
Nonflat - High Gloss Coatings	250
Specialty Coatings	
Antenna Coatings	530
Antifouling Coatings	400
Bituminous Roof Coatings	300
Bituminous Roof Primers	350
Bond Breakers	350
Clear Wood Coatings:	
Clear Brushing Lacquers	680
Lacquers (including lacquer sanding sealers)	550
Sanding Sealers (other than lacquer sanding sealers)	350
Varnishes	350
Concrete Curing Compounds	350
Dry Fog Coatings	400
Faux Finishing Coatings	350
Fire Resistive Coatings	350
Fire-Retardant Coatings:	
Clear	650
Opaque	350
Floor Coatings	250
Flow Coatings	420
Form-Release Compounds	250
Graphic Arts Coatings (Sign Paints)	500
High Temperature Coatings	420
Industrial Maintenance Coatings	250
Low Solids Coatings	120 <sup>b</sup>
Magnesite Cement Coatings	450
Mastic Texture Coatings	300
Metallic Pigmented Coatings	500
Multi-Color Coatings	250



**TABLE OF STANDARDS 1, continued (Effective through 12/31/10)**

<b>COATING CATEGORY</b>	<b>Effective Date: 1/1/2003</b>
Pre-Treatment Wash Primers	420
Primers, Sealers, and Undercoaters	200
Quick-Dry Enamels	250
Quick-Dry Primers, Sealers and Undercoaters	200
Recycled Coatings	250
Roof Coatings	250
Rust Preventative Coatings	400
Shellacs:	
Clear	730
Opaque	550
Specialty Primers, Sealers, and Undercoaters	350
Stains	250
Swimming Pool Coatings	340
Swimming Pool Repair and Maintenance Coatings	340
Temperature-Indicator Safety Coatings	550
Traffic Marking Coatings	150
Waterproofing Sealers	250
Waterproofing Concrete/Masonry Sealers	400
Wood Preservatives	350

a Conversion factor: one pound VOC per gallon (U.S.) = 119.95 grams VOC per liter.

b Units are grams of VOC per liter of coating, including water and exempt compounds in accordance with Section 3.27.

**TABLE OF STANDARDS 2 (Effective on and after 1/1/11)**

Limits are expressed as VOC Regulatory, thinned to the manufacturer's maximum thinning recommendation, excluding any colorant added to tint bases.

<b>COATING CATEGORY</b>	<b>VOC Limit (g/l) Effective 1/1/2011 through 12/31/2011<sup>2</sup></b>	<b>VOC Limit (g/l) Effective on and after 1/1/2012<sup>2</sup></b>
Flat Coatings	50	50
Nonflat Coatings	100	100
Nonflat - High Gloss Coatings	150	150
<b>Specialty Coatings</b>		
Aluminum Roof Coatings	400	400
Basement Specialty Coatings	400	400
Bituminous Roof Coatings	50	50
Bituminous Roof Primers	350	350
Bond Breakers	350	350
Concrete Curing Compounds	350	350
Concrete/Masonry Sealers	100	100
Driveway Sealers	50	50
Dry Fog Coatings	150	150
Faux Finishing Coatings	350	350
Fire Resistive Coatings	350	350
Floor Coatings	100	100
Form-Release Compounds	250	250
Graphic Arts Coatings (Sign Paints)	500	500
High Temperature Coatings	420	420
Industrial Maintenance Coatings	250	250
Low Solids Coatings <sup>1</sup>	120 <sup>1</sup>	120 <sup>1</sup>
Magnesite Cement Coatings	450	450
Mastic Texture Coatings	100	100
Metallic Pigmented Coatings	500	500
Multi-Color Coatings	250	250
Pre-Treatment Wash Primers	420	420
Primers, Sealers, and Undercoaters	100	100
Reactive Penetrating Sealers	350	350
Recycled Coatings	250	250
Roof Coatings	50	50
Rust Preventative Coatings	400	250

**TABLE OF STANDARDS 2 (continued) (Effective on and after 1/1/11)**

Limits are expressed as VOC Regulatory, thinned to the manufacturer's maximum thinning recommendation, excluding any colorant added to tint bases.

<b>COATING CATEGORY</b>	<b>VOC Limit (g/l) Effective 1/1/2011 through 12/31/2011<sup>2</sup></b>	<b>VOC Limit (g/l) Effective on and after 1/1/2012<sup>2</sup></b>
Shellacs:		
Clear	730	730
Opaque	550	550
Specialty Primers, Sealers, and Undercoaters	350	100
Stains	250	250
Stone Consolidants	450	450
Swimming Pool Coatings	340	340
Traffic Marking Coatings	100	100
Tub and Tile Refinish Coatings	420	420
Waterproofing Membranes	250	250
Wood Coatings	275	275
Wood Preservatives	350	350
Zinc-Rich Primers	340	340