San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

SEP 18 2012

Andrew Robertson
Wellhead Power Panoche, LLC
8105-B S. Lassen Avenue
San Joaquin, CA 93660

Re: Notice of Preliminary Decision - Federally Mandated Operating Permit
District Facility # C-3844
Project # C-1111152

Dear Mr. Robertson:

Enclosed for your review and comment is the District's analysis of Wellhead Power Panoche's application for the Federally Mandated Operating Permit for its power generating facility located at 43649 Panoche Road in Firebaugh, 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

cc: Derek Fukuda, Permit Services Engineer

Attachments

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

SEP 18 2012

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 - Federally Mandated Operating Permit
District Facility # C-3844
Project # C-1111152

Dear Mr. Rios:

Enclosed for your review and comment is the District's analysis of Wellhead Power Panoche's application for the Federally Mandated Operating Permit for its power generating facility located at 43649 Panoche Road in Firebaugh, 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

cc: Derek Fukuda, Permit Services Engineer

Attachments

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
Fresno, CA 93726-0244
Tel: (559) 230-6000 FAX: (559) 230-6061

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34946 Flyover Court
Bakersfield, CA 93308-9725
Tel: 661-392-5500 FAX: 661-392-5585

www.valleyair.org www.healthyairliving.com

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

SEP 1 8 2012

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

Re: Notice of Preliminary Decision - Federally Mandated Operating Permit
District Facility # C-3844
Project # C-1111152

Dear Mr. Tollstrup:

Enclosed for your review and comment is the District's analysis of Wellhead Power Panoche's application for the Federally Mandated Operating Permit for its power generating facility located at 43649 Panoche Road in Firebaugh, 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

cc: Derek Fukuda, Permit Services Engineer

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Fresno Bee

NOTICE OF PRELIMINARY DECISION
FOR THE PROPOSED ISSUANCE OF
FEDERALLY MANDATED OPERATING PERMITS

NOTICE IS HEREBY GIVEN that the San Joaquin Valley Air Pollution Control District solicits public comment on the proposed issuance of the Federally Mandated Operating permits to Wellhead Power Panoche, LLC for its power generating facility located at 43649 Panoche Road in Firebaugh, California.

The District's analysis of the legal and factual basis for this proposed action, project #C-1111152, is available for public inspection at 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 Federally Mandated Operating initial permits. If requested by the public, the District will hold a public hearing regarding issuance of this initial permit. For additional information, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900. Written comments on the proposed initial 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
UNIFIED AIR POLLUTION CONTROL DISTRICT

WELLHEAD POWER PANOCHE, LLC

PROPOSED ENGINEERING EVALUATION

TABLE OF CONTENTS

TITLE V APPLICATION REVIEW

Project #: C-1111152
Deemed Complete: May 11, 2011

Engineer: Derek Fukuda
Date: September 14, 2012

Facility Number: C-3844
Facility Name: Wellhead Power Panoche, LLC
Mailing Address: 8105-B S. Lassen Avenue
San Joaquin, CA 93660

Contact Name: Andrew Robertson
Phone: (916) 447-5171

Responsible Official: Paul Cummins
Title: Vice President

I. PROPOSAL

Wellhead Power Panoche, LLC is proposing that an initial Title V permit be issued for its power generating facility at 43649 Panoche Road in Firebaugh, CA. The purpose of this evaluation is to identify all applicable requirements, determine if the facility will comply with those applicable requirements, and to provide the legal and factual basis for proposed permit conditions.

II. FACILITY LOCATION

Wellhead Power Panoche, LLC is located at 43649 Panoche Road in Firebaugh, CA.

III. EQUIPMENT LISTING

A detailed facility printout listing all permitted equipment at the facility is shown in Attachment A.

A summary of the exempt equipment categories which describe the insignificant activities or equipment at the facility not requiring a permit is shown in Attachment B. This equipment is not exempt from facility-wide requirements.

IV. GENERAL PERMIT TEMPLATE USAGE

The applicant is requesting to use the following model general permit templates:

a. SJV-UM-0-3, Facility-wide Umbrella General Permit Template

The applicant has requested to utilize template #SJV-UM-0-3, Facility-wide Umbrella General Permit Template for unit C-3844-0-1. Based on the information submitted on the Template Qualification Form (Attachment C), the applicant qualifies for the use of this template.

V. SCOPE OF EPA AND PUBLIC REVIEW

Certain segments of the proposed Operating Permit are based on model general permit templates that have been previously subject to EPA and public review. The terms and conditions from the model general permit templates are included in the proposed permit and are not subject to further EPA and public review.

For permit applications utilizing model general permit templates, public and agency comments on the District's proposed actions are limited to the applicant's eligibility for model general permit template, applicable requirements not covered by the model general permit template, and the applicable procedural requirements for issuance of Title V Operating Permits.

The following permit conditions, including their underlying applicable requirements, originate form model general permit templates and are not subject to further EPA or public review.

Conditions 1 through 40 of the requirements for permit unit C-3844-0-1.

VI. REQUIREMENTS ADDRESSED BY GENERAL PERMIT TEMPLATES

District Rule 1100, Equipment Breakdown (amended December 17, 1992) (Non-SIP replacement for Kern County Rule 111)

District Rule 1160, Emission Statements (adopted November 18, 1992)

District Rule 2010, Permits Required (amended December 17, 1992)

District Rule 2020, Exemptions (amended August 18, 2011). The amendments made to this rule on August 18, 2011 have no impact to this source; therefore template SJV-UM-0-3 is still valid for this project.

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, Sections 5.2, 9.1.1, 9.4, 9.5, 9.7, 9.8, 9.9, 9.13.1, 9.13.2, 9.16 and 10.0, Federally Mandated Operating Permits (amended June 21, 2001)

District Rule 4101, Visible Emissions (amended February 17, 2005)

District Rule 4601, Architectural Coatings (amended December 17, 2009)

District Rule 8011, General Requirements (amended August 19, 2004)

District Rule 8021, Construction, Demolition, Excavation, and Other Earthmoving Activities (amended August 19, 2004)

District Rule 8031, Bulk Materials (amended August 19, 2004)

District Rule 8041, Carryout and Trackout (amended August 19, 2004)

District Rule 8051, Open Areas (amended August 19, 2004)

District Rule 8061, Paved and Unpaved Roads (amended August 19, 2004)

District Rule 8071, Unpaved Vehicle/Equipment Traffic Areas (amended September 16, 2004)

40 CFR Part 82, Subpart B and F, Stratospheric Ozone

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

VII. REQUIREMENTS NOT ADDRESSED BY GENERAL PERMIT TEMPLATES

District Rule 1080, Stack Monitoring (amended December 17, 1992)

District Rule 1081, Source Sampling (amended December 16, 1993)

District Rule 2201, New and Modified Stationary Source Review Rule (amended April 21, 2011)

District Rule 2520, Federally Mandate Operating Permits (amended June 21, 2001)

District Rule 4201, Particulate Matter Concentration (amended December 17, 1992)

District Rule 4702, Internal Combustion Engines (August 18, 2011)

District Rule 4703, Stationary Gas Turbines (September 20, 2007)

District Rule 4801, Sulfur Compounds (amended December 17, 1992)

40 CFR Part 60, Subpart GG, Standards of Performance for Stationary Gas Turbines

40 CFR Part 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

40 CFR Part 60, Subpart JJJJ, Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

40 CFR Part 60, Subpart KKKK, Standards of Performance for Stationary Combustion Turbines

40 CFR Part 63, Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

40 CFR Part 64, Compliance Assurance Monitoring (CAM)

VIII. 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.

This facility is subject to the following rules that are not currently federally enforceable:

District Rule 4102 – Nuisance

a. **C-3844-0-1:** Facility-Wide Requirements

- Condition 41 on the proposed permit is based on this rule.

b. **C-3844-1-8:** 49.9 MW NOMINALLY RATED SIMPLE-CYCLE PEAK-DEMAND ELECTRICAL POWER GENERATING SYSTEM CONSISTING OF TWO 25.0 MW PRATT & WHITNEY MODEL #FT4C1 NATURAL GAS-FIRED (TWINPAC CONFIGURATION) GAS TURBINE ENGINES (GTE) WITH DRY LOW NOX (DLN) OR WATER INJECTION TECHNOLOGY, A SHARED SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM WITH OXIDATION CATALYSTS AND INLET AIR FOGGING

- Condition 22 on the proposed permit is based on this rule.

c. **C-3844-5-2:** 329 BHP CAT MODEL #G379 RICH-BURN NATURAL GAS-FIRED IC ENGINE POWERING AN ELECTRICAL GENERATOR AND SERVED BY A 3-WAY CATALYST

- Condition 10 on the proposed permit is based on this rule.

Title 17 California Code of Regulations (CCR), Section 93115 - Airborne Toxic Control Measure (ATCM) for Stationary Compression-Ignition (CI) Engines

The purpose of this airborne toxic control measure (ATCM) is to reduce diesel particulate matter (PM) and criteria pollutant emissions from stationary diesel-fueled compression ignition (CI) engines. Permit unit C-3844-3-1 is subject to the requirements of this regulation.

§93115.5 lists the fuel and fuel additive requirements for new and in-use stationary cl engines that have a rated brake horsepower of greater than 50. Condition 4 on the proposed permit satisfies the requirements of this section.

§93115.7 states the stationary prime diesel-fueled ci engine (>50 bhp) emission standards. Pursuant to the exemption in Section 93115.3(j), the provisions of section 93115.7(b)(1) do not apply to unit C-3844-3-1

§93115.10 lists recordkeeping, reporting, and monitoring requirement. Condition 5 on the proposed permit satisfies the requirements of this section.

IX. COMPLIANCE

A. Requirements Addressed by Model General Permit Templates

1. Facility Wide Requirements

The applicant is proposing to use a general permit template to address federally applicable facility-wide requirements. Section IV of template SJV-UM-0-3 includes a demonstration of compliance for all applicable requirements. Template conditions have been added to the facility wide requirements as condition numbers 1 through 40 to assure compliance with these requirements.

B. Requirements Not Addressed by Model General Permit Templates

Dormant Emission Unit:

Permit unit C-3844-5-1 is currently out of operation and is designated as a compliant dormant emission unit by District Permit conditions. Permit conditions have been added to this permit unit requiring that the District be notified before the facility operates the unit. All applicable rules and regulations which currently apply to this unit will be addressed in this evaluation; however the unit will remain in dormant status.

1. District Rule 1080, Stack Monitoring

This rule grants the APCO the authority to request the installation, use maintenance, and inspection of continuous monitoring equipment. The general, source and pollutant specific requirements for continuous monitoring equipment are defined. This rule also specifies the performance standards for the equipment and administrative recordkeeping, reporting, and violation and equipment breakdown notification requirements.

- Conditions 7, 8, 25, 26, 27, and 30 of the requirements for proposed permit -1-8 ensure compliance with the requirements of this rule.

2. District Rule 1081, Source Sampling

The purpose of this rule is to ensure that any source operation which emits or may emit air contaminants provides adequate and safe facilities for use in sampling to determine compliance. This rule also specifies methods and procedures for source testing, sample collection, and compliance determination.

- Conditions 9, 23, 24, and 28 of the requirements for proposed permit -1-8 ensure compliance with the requirements of this rule.

3. District Rule 2201, New and Modified Stationary Source Review

The permit units are subject to the District NSR Rule upon application for Authority to Construct (ATC). In accordance with the White Paper for Streamlined Development of Part 70 Permit Applications, dated July 10, 1995, conditions from the resulting Permit to Operate (PTO) were addressed to define how NSR permit terms should be incorporated into the Title V permit.

a) **C-3844-1-8:** 49.9 MW NOMINALLY RATED SIMPLE-CYCLE PEAK-DEMAND ELECTRICAL POWER GENERATING SYSTEM CONSISTING OF TWO 25.0 MW PRATT & WHITNEY MODEL #FT4C1 NATURAL GAS-FIRED (TWINPAC CONFIGURATION) GAS TURBINE ENGINES (GTE) WITH DRY LOW NOX (DLN) OR WATER INJECTION TECHNOLOGY, A SHARED SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM WITH OXIDATION CATALYSTS AND INLET AIR FOGGING

- Conditions 1 through 17 from the current PTO have been included as conditions 1 through 17 on the requirements for the proposed permit.
- Conditions 18 through 23 from the current PTO have been included as conditions 19 through 24 on the requirements for the proposed permit.
- Conditions 24 and 25 from the current PTO have been included as conditions 33 and 34 on the requirements for the proposed permit.
- Conditions 26, 27, and 28 from the current PTO have been included as conditions 25, 26, and 27 on the requirements for the proposed permit.

- Condition 29 from the current PTO requires the permittee to follow all applicable requirements specified in 40 CFR Part 60, Appendix F. Condition 6 on the requirements for the proposed permit also requires the permittee to follow the requirements of 40 CFR Part 60, Appendix F; therefore condition 29 on the current PTO has been removed.
- Condition 30 from the current PTO has been included as condition 30 on the requirements for the proposed permit.
- Condition 31 from the current PTO has been included as condition 35 on the requirements for the proposed permit.

b) **C-3844-3-1:** 440 HP CATERPILLAR MODEL 3406 TA DIESEL-FIRED LOW USE IC ENGINE POWERING A COMPRESSOR TO START THE GAS TURBINES (C-3844-1)

- Conditions 1 and 2 from the current PTO have been included as conditions 1 and 2 on the requirements for the proposed permit.
- Conditions 3, 4, and 5 from the current PTO were replaced with conditions 3, 4, and 5 on the requirements for the proposed permit.
- Conditions 6 through 10 from the current PTO have been included as conditions 6 through 10 on the requirements for the proposed permit.

c) **C-3844-5-2:** 329 BHP CAT MODEL #G379 RICH-BURN NATURAL GAS-FIRED IC ENGINE POWERING AN ELECTRICAL GENERATOR AND SERVED BY A 3-WAY CATALYST

- Conditions 1 through 4 from the current PTO have been replaced by conditions 1 through 7 on the requirements for the proposed permit.
- Conditions 5 through 8 from the current PTO have been included as conditions 8 through 11 on the requirements for the proposed permit.
- Conditions 9 through 11 from the current PTO have been included as conditions 13 through 15 on the requirements for the proposed permit.
- Conditions 12 and 13 from the current PTO have been replaced by conditions 16 and 17 on the requirements for the proposed permit.
- Conditions 14 through 18 from the current PTO have been replaced by conditions 18 through 22 on the requirements for the proposed permit.
- Conditions 19 through 21 from the current PTO have been replaced by conditions 23 through 25 on the requirements for the proposed permit.

4. District Rule 2520, Federally Mandated Operating Permits

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.

5. District Rule 4201, Particulate Matter Concentration

The purpose of this rule is to protect the ambient air quality by establishing a particulate matter emission standard. Section 3.1 requires emissions to be at or below 0.1 grains of particulate matter per dry standard cubic foot of exhaust gas.

Unit C-3844-1:

PM_{10} Emission Factor: 0.0066 lb-PM_{10}/MMBtu (project C-1040417)
Percentage of PM as PM_{10} in Exhaust: 100%
Exhaust Oxygen (O_2) Concentration: 3%

Excess Air Correction to F Factor = $\frac{20.9}{(20.9 - 3)} = 1.17$

Therefore for each natural gas-fired turbine engine, the Particulate Matter Concentration is calculated as follows:

$$\left(\frac{0.0066\ lb - PM_{10}}{MMBtu} \times \frac{7{,}000\ grain}{lb}\right) / \left(\frac{8{,}578\ ft^3}{MMBtu} \times\ 1.17\right) = 0.0046\ \frac{grain}{dscf}$$

$0.0046\ grain/dscf < 0.1\ grain/dscf$

Therefore, compliance with District Rule 4201 requirements is expected.

- Condition 2 of the requirements for proposed permit -1-8 ensures compliance with these requirements.

Unit C-3844-3:

PM_{10} Emission Factor: 0.1 g-PM_{10}/bhp-hr

$$0.1 \quad \frac{grain-PM}{dscf} \times \frac{g}{15.43 grain} \times \frac{1\,Btu_{in}}{0.35\,Btu_{out}} \times \frac{9{,}051 dscf}{10^6\,Btu} \times \frac{2{,}542.5\,Btu}{1\,bhp-hr} \times \frac{0.96 g-PM_{10}}{1 g-PM} = 0.4 \frac{g-PM_{10}}{bhp-hr}$$

The engine has a PM_{10} emission factor less than 0.4 g/bhp-hr. Therefore, compliance is expected.

- Condition 2 of the requirements for proposed permit -3-1 ensures compliance with these requirements.

Unit C-3844-5:

PM_{10} Emission Factor: 0.071 g-PM_{10}/bhp-hr

$$0.1 \quad \frac{grain-PM}{dscf} \times \frac{g}{15.43 grain} \times \frac{1\,Btu_{in}}{0.35\,Btu_{out}} \times \frac{9{,}051 dscf}{10^6\,Btu} \times \frac{2{,}542.5\,Btu}{1\,bhp-hr} \times \frac{0.96 g-PM_{10}}{1 g-PM} = 0.4 \frac{g-PM_{10}}{bhp-hr}$$

The engine has a PM_{10} emission factor less than 0.4 g/bhp-hr. Therefore, compliance is expected.

- Condition 15 of the requirements for proposed permit -5-2 ensures compliance with these requirements.

6. District Rule 4702, Internal Combustion Engines

The purpose of this rule is to limit the emissions of nitrogen oxides (NOx), carbon monoxide (CO), volatile organic compounds (VOC), and sulfur oxides (SOx) from internal combustion engines. This rule applies to any internal combustion engine rated at 25 brake horsepower or greater.

Section 3.26 defines a low use engine as an internal combustion engine that is limited by a permit condition to be operated no more than 200 hours per calendar year and the engine is not used to generate electrical power that is either fed into the electrical utility power grid or used to reduce electrical power purchased by a stationary source; generate mechanical power that is used to reduce electrical power purchased by a stationary source; or is used in a distributed generation application.

Unit -3 is limited by permit condition to a maximum of 50 hours of operation per year. In addition, it powers a compressor used to start up the turbines. Therefore, this engine is classified as a low use engine.

Section 4.2 states that except for the requirements of Sections 5.9 and 6.2.3, the requirements of this rule shall not apply to an emergency standby engine or a low-use engine, provided that the engine is operated with an operating nonresettable elapsed time meter. Unit -3 is a low use engine and therefore will only be subject to the requirements in sections 5.9 and 6.2.3.

Unit C-3844-3:

- Condition 6 of the requirements for proposed permit -3-1 ensures compliance with these requirements.

Only unit C-3844-5 is subject to the requirements in sections 5.2 through 5.8.

Section 5.2.1 states that the operator of a spark-ignited internal combustion engine rated at >50 bhp that is used exclusively in non-AO shall not operate it in such a manner that results in emissions exceeding the limits in Table 1 for the appropriate engine type until such time that the engine has demonstrated compliance with Table 2 emission limits pursuant to the compliance deadlines in Section 7.5. In lieu of complying with Table 1 emission limits, the operator of a spark-ignited engine shall comply with the applicable emission limits pursuant to Section 8.0.

The compliance deadlines for the engines at this facility have not passed yet therefore; only the emission requirements of Table 1 are applicable at this time.

Rule 4702 Emission Limits – Table 1			
Engine Type	NO_x Emission Limit (ppmv @ 15% O_2, dry)	CO Emission Limit (ppmv @ 15% O_2, dry)	VOC Emission Limit (ppmv @ 15% O_2, dry)
1. c. Rich Burn, All Other Engine	25 ppmv or 96% reduction	2,000 ppmv	250 ppmv

Unit C-3844-5:

- Condition 15 of the requirements for proposed permit -5-2 ensures compliance with these requirements.

Section 5.3 applies to engines equipped with CEMS. Since the engine is not equipped with CEMS, the requirements of this section are not applicable to unit -5.

Section 5.4 and 5.5 apply to engines using the percent emission reduction to demonstrate compliance with the emission limit in Section 5.2. Since the facility does not use the percent emission reduction to demonstrate compliance with the emission limits in Section 5.2, the requirements of these sections are not applicable to unit -5.

Section 5.6 applies to units paying an annual fee in lieu of complying with a NO_X emission limit. The facility has not proposed this option; therefore the requirements of this section are not applicable to unit -5.

Section 5.7 addressed the SO_x emission control requirements of the rule. Since these requirements are only applicable after the compliance deadlines in Section 7.5, they will not be addressed in this evaluation.

Section 5.8 applies to engines in an alternative emission control plan (AECP). Since the units in this project are not in an AECP, the requirements of these sections are not applicable to unit -5.

Both unit C-3844-3 and -5 are subject to the requirements in section 5.9.

Section 5.9.2 requires the facility to properly operate and maintain each engine as recommended by the engine manufacturer or emission control system supplier.

Section 5.9.3 requires the facility to monitor the operational characteristics of each engine as recommended by the engine manufacturer or emission control system supplier.

Section 5.9.4 requires that the facility install and operate a nonresettable elapsed time meter.

Section 5.9.5 states requirements for AO engines. The engines at this facility are not AO engines; therefore the requirements of this section are not applicable.

Unit C-3844-3:

- Conditions 3, 5, and 9 of the requirements for proposed permit -3-1 ensures compliance with these requirements.

Unit C-3844-5:

- Conditions 8, 11, and 12 of the requirements for proposed permit -5-2 ensures compliance with these requirements.

Section 5.10 addressed the SO_x emission monitoring requirements of the rule. Since these requirements are only applicable after the compliance deadlines in Section 7.5, they will not be addressed in this evaluation.

Only unit C-3844-5 is subject to the requirements in sections 6.1 and 6.2.1.

Section 6.1 states the requirements for an Emission Control Plan (ECP). Since unit -5 is the only engine at the facility subject to an ECP and it is dormant emissions unit, the ECP plan requirements are met.

Section 6.2.1 states that the operator of an engine subject to the requirements of Section 5.2 of this rule shall maintain an engine operating log to demonstrate compliance with this rule. This information shall be retained for a period of at least five years, shall be readily available, and be made available to the APCO upon request. The engine operating log shall include, on a monthly basis, the following information:

- Total hours of operation,
- Type of fuel used,
- Maintenance or modifications performed,
- Monitoring data,
- Compliance source test results, and
- Any other information necessary to demonstrate compliance with this rule.
- For an engine subject to Section 8.0, the quantity

Unit C-3844-5:

- Conditions 23 and 25 of the requirements for proposed permit -5-2 ensures compliance with these requirements.

Only unit C-3844-3 is subject to the requirements in sections 6.2.3.

Section 6.2.3 states that an operator claiming an exemption under Section 4.2 or Section 4.3 shall maintain annual operating records. This information shall be retained for at least five years, shall be readily available, and provided to the APCO upon request. The records shall include, but are not limited to, the following:

- Total hours of operation,
- The type of fuel used,
- The purpose for operating the engine,
- For emergency standby engines, all hours of non-emergency and
- emergency operation shall be reported, and
- Other support documentation necessary to demonstrate claim to the exemption.

Unit C-3844-3:

- Condition 10 of the requirements for proposed permit -3-1 ensures compliance with these requirements.

Only unit C-3844-5 is subject to the requirements in sections 6.3, 6.4, and 6.5.

Section 6.3.2 states that a facility should demonstrate compliance with all applicable limits (ppmv or percent reduction) at least once every 24 months.

Unit C-3844-5:

- Condition 17 of the requirements for proposed permit -5-2 ensures compliance with this requirements.

Section 6.3.3 states that the facility shall conduct emissions source testing with the engine operating either at conditions representative of normal operations or conditions specified in the Permit-to-Operate or Permit-Exempt Equipment Registration. For emissions source testing performed pursuant to Section 6.3.2 for the purpose of determining compliance with an applicable standard or numerical limitation, the arithmetic average of three (3) 30-consecutive-minute test runs shall apply. If two (2) of three (3) runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15 percent oxygen. For engines that comply with a percent reduction limit, the percent reduction of NOx emissions shall also be reported.

Unit C-3844-5:

- Conditions 18 and 19 of the requirements for proposed permit -5-2 ensures compliance with these requirements.

Section 6.3.5 states that engines that are limited by Permit-to-Operate or Permit-Exempt Equipment Registration condition to be fueled exclusively with PUC quality natural gas shall not be subject to the reoccurring source test requirements of Section 6.3.2 for VOC emissions. Unit -5 is not limited by permit condition to only be fired on PUC quality natural gas therefore; VOC source testing will still be required.

Section 6.3.6 applies to facilities utilizing representative source testing for a group of engines. This section is not applicable to units at this facility.

Section 6.4 states that compliance with the requirements of Section 5.2 shall be determined, as required, in accordance with the following test procedures or any other method approved by EPA and the APCO:

- Oxides of nitrogen - EPA Method 7E, or ARB Method 100.
- Carbon monoxide - EPA Method 10, or ARB Method 100.
- Stack gas oxygen - EPA Method 3 or 3A, or ARB Method 100.
- Volatile organic compounds - EPA Method 25A or 25B, or ARB Method 100. Methane and ethane, which are exempt compounds, shall be excluded from the result of the test.
- Operating horsepower determination - any method approved by EPA and the APCO.
- The Higher Heating Value (hhv) of the fuel shall be determined by one of the following test methods:
  - ASTM D 240-02 or ASTM D 3282-88 for liquid hydrocarbon fuels.
  - ASTM D 1826-94 or ASTM 1945-96 in conjunction with ASTM D 3588-89 for gaseous fuel.

Unit C-3844-5:

- Condition 20 of the requirements for proposed permit -5-2 ensures compliance with these requirements.

Section 6.5 states that the operator of an engine that is subject to the requirements of Section 5.2 or the requirements of Section 8.0 shall submit to the APCO for approval, an I&M plan that specifies all actions to be taken to satisfy the following requirements and the requirements of Section 5.8. The actions to be identified in the I&M plan shall include, but are not limited to, the information specified below. If there is no change to the previously approved I&M plan, the operator shall submit a letter to the District indicating that previously approved plan is still valid. The facility has already submitted an approved I&M plan to the District.

Unit C-3844-5:

- Condition 24 of the requirements for proposed permit -5-2 ensures compliance with this requirements.

7. District Rule 4703, Stationary Gas Turbines

Rule 4703 is applicable to stationary gas turbines with a rating greater than 0.3 megawatts. The facility operates two 25 MW gas turbines. Therefore the requirements of this rule apply to the proposed turbines.

Section 5.1 – NO_X Emission Requirements:

Section 5.1.1 (Tier I) of this rule limits the NO_X emissions from stationary gas turbine systems greater than 10 MW, and equipped with Selective Catalytic Reduction (SCR), based on the following equation:

$$NO_X \text{ (ppmv @ 15\% } O_2) = 9 \times \left(\frac{EFF}{25}\right)$$

Where EFF is the higher of EFF_1 or EFF_2 where:

$$EFF_1 = \frac{3{,}412 \frac{Btu}{kW-hr}}{\text{Actual Heat Rate @ HHV } (\frac{Btu}{kW-hr})} \times 100, \text{ and } EFF_2 = EFF_{MFR} \frac{LHV}{HHV}$$

$EFF_2 = EFF_{mfr} * (LHV/HHV)$

EFF_2 is EFF_{mfr} after correction from LHV to HHV at peak load for that facility. EFF_{mfr} is the manufacturer's continuous rated percent efficiency of the gas turbine with air pollution control equipment at LHV.

The Actual Heat Rate @ HHV for the Pratt & Whitney turbine is 13,500 Btu/kW-hr as reported by the manufacturer:

$EFF_1 = (3{,}412 / 13{,}500) \times 100$

$EFF_1 = 25.2\%$

Therefore, when gas fired:

$NO_X = 9 \times 25.2 / 25$

$NO_X = 9.1$ ppmv @ 15% O_2

EFF_2 calculations are not necessary since Rule 4703 emission limits will be no lower than 9 ppmv NO_X and the turbines will be limited to a maximum of 2.5 ppmv NO_X @ 15% O_2; therefore compliance is expected.

Section 5.1.2 (Tier 2) of this rule limits the NO_X emissions from simple cycle, stationary gas turbine systems rated at greater than 10 MW and allowed to operate more than 876 hours per year to 5 ppmv @ 15% O_2 (Standard option) and 3 ppmv @ 15% O_2 (Enhanced Option). The turbines are limited to 2.5 ppmv @ 15% O_2 (based on a 1-hour average).

- Condition 15 of the requirements for proposed permit -1-8 ensures compliance with these requirements.

Section 5.2 – CO Emission Requirements:

Per Table 5-3 of section 5.2, the CO emissions concentration from the turbines must be less than 200 ppmvd @ 15% O_2. The facility is limited to a CO emission concentration limit of 16 ppmvd @ 15% O_2.

- Condition 15 of the requirements for proposed permit -1-8 ensures compliance with these requirements.

Section 5.3 – Startup and Shutdown Requirements:

This section states that the emission limit requirements of Sections 5.1.1, 5.1.2 or 5.2 shall not apply during startup, shutdown, or a reduced load period provided an operator complies with the requirements specified below:

- The duration of each startup or each shutdown shall not exceed two hours, and the duration of each reduced load period shall not exceed one hour, except as provided below.
- The emission control system shall be in operation and emissions shall be minimized insofar as technologically feasible during startup, shutdown, or a reduced load period.
- An operator may submit an application to allow more than two hours for each startup or each shutdown or more than one hour for each reduced load period provided the operator meets all of the conditions specified in the rule.

The facility has stated that the duration of each startup or shutdown event will last no more than two hours. The SCR system and oxidation catalyst will be in operation during startup and shutdown in order to minimize emissions insofar as technologically feasible during startups and shutdowns.

- Conditions 16, 17, and 18 of the requirements for proposed permit -1-8 ensure compliance with these requirements.

Section 6.2 - Monitoring and Record Keeping:

Section 6.2.1 requires the owner to operate and maintain continuous emissions monitoring equipment for NO_X and oxygen, or install and maintain APCO-approved alternate monitoring. The applicant operates a Continuous Emissions Monitoring System (CEMS) that monitors the NO_X and oxygen content of the turbine exhaust.

- Condition 6 of the requirements for proposed permit -1-8 ensures compliance with these requirements.

Section 6.2.2 specifies monitoring requirements for turbines without exhaust-gas NO_X control devices. Each of the turbines is equipped with an SCR system that is designed to control NO_X emissions. Therefore, the requirements of this section are not applicable and no further discussion is required.

Section 6.2.3 requires that for units 10 MW and greater that operated an average of more than 4,000 hours per year over the last three years before August 18, 1994, the owner or operator shall monitor the exhaust gas NO_X emissions. The turbines were installed after August 18, 1994; therefore the requirements of this section are not applicable. No further discussion is required.

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. The facility is required to maintain all records for at least five years and make them available to the APCO upon request. Therefore, the proposed turbines will be operating in compliance with the five year recordkeeping requirements of this rule.

- Condition 35 of the requirements for proposed permit -1-8 ensures compliance with these requirements.

Section 6.2.5 requires that the owner or operator shall submit to the APCO, before issuance of the Permit to Operate, information correlating the control system operating to the associated measure NO_X output. This information may be used by the APCO to determine compliance when there is no continuous emission monitoring system for NO_X available or when the continuous emissions monitoring system is not operating properly. The facility is required, by permit condition, to submit information correlating the NO_X control system operating parameters to the associated measured NO_X output. Therefore, the proposed turbines will be operating in compliance with the control system operating parameter requirements of this rule.

- Condition 31 of the requirements for proposed permit -1-8 ensures compliance with these requirements.

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.

- Condition 32 of the requirements for proposed permit -1-8 ensures compliance with these requirements.

Section 6.2.7 establishes recordkeeping requirements for units that are exempt pursuant to the requirements of Section 4.2. Each of the turbines are subject to the requirements of this rule. Therefore, the requirements of this section are not applicable and no further discussion is required.

Section 6.2.8 requires owners or operators performing startups or shutdowns to keep records of the duration of each startup and shutdown. As discussed in the Section 6.2.6 discussion above for this rule, the facility is required, by permit condition, to maintain records of the date, time and duration or each startup and shutdown. Therefore, the proposed turbines will be operating in compliance with the recordkeeping requirements of this rule.

Sections 6.3 and 6.4 - Compliance Testing:

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_X and CO concentrations. Section 6.3.2 also states that the owner or operator of any stationary gas turbine system operating less than 877 hours per year shall provide source test information biennially regarding the exhaust gas NO_X concentrations.

- Condition 20 of the requirements for proposed permit -1-8 ensures compliance with these requirements.

Section 6.3.3 specifies source testing requirements for units that are equipped with intermittently operated auxiliary burners. The facility does not operate any of these turbines with auxiliary burners. 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_X 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 24 of the requirements for proposed permit -1-8 ensures compliance with these requirements.

8. District Rule 4801 – Sulfur Compounds

Per Section 3.1, a person shall not discharge into the atmosphere sulfur compounds, which would exist as a liquid or gas at standard conditions, exceeding in concentration at the point of discharge: 0.2 % by volume calculated as SO_2 on a dry basis averaged over 15 consecutive minutes:

Using the ideal gas equation and the emission factors presented in Section VII, the sulfur compound emissions are calculated as follows:

Volume $SO_2 = \frac{n\,RT}{P}$

With:

N = moles SO_2
T (Standard Temperature) = 60°F = 520°R
P (Standard Pressure) = 14.7 psi
R (Universal Gas Constant) = $\frac{10.73\,psi \cdot ft^3}{lb \cdot mol \cdot {}^\circ R}$
EPA F-Factor for Natural Gas: 8,710 dscf/MMBtu at 68 °F, equivalent to

$$Corrected\ F-factor = \left(\frac{8{,}710 dscf}{MMBtu}\right) \times \left(\frac{60^\circ F + 459.6}{68^\circ F + 459.6}\right) = 8{,}578 \frac{dscf}{MMBtu}\ \ at\ 60^\circ F$$

Unit C-3844-1-8:

$$\frac{0.00285\,lb - SOx}{MMBtu} \times \frac{MMBtu}{8{,}578\,dscf} \times \frac{1\,lb \cdot mol}{64\,lb} \times \frac{10.73\,psi \cdot ft^3}{lb \cdot mol \cdot {}^\circ R} \times \frac{520^\circ R}{14.7\,psi} \times \frac{1{,}000{,}000 \cdot parts}{million} = 1.97 \frac{parts}{million}$$

$$SulfurConcentration = 1.97 \frac{parts}{million}$$

Since 1.97 ppmv < 2,000 ppmv (or 0.2%), compliance with District Rule 4101 requirements is expected.

- Condition 10 of the requirements for proposed permit -1-8 ensures compliance with these requirements.

Unit C-3844-3-1:

$$\frac{0.000015\,lb-S}{lb-fuel}\times\frac{7.1\text{ lb}}{\text{gal}}\times\frac{64\text{ lb}-SO_2}{32\text{ lb}-S}\times\frac{1\text{ MMBtu}}{9{,}051\text{ scf}}\times\frac{1\text{ gal}}{0.137\text{ MMBtu}}\times\frac{\text{lb}-\text{mol}}{64\text{ lb}-SO_2}\times\frac{10.73\text{ psi}-\text{ft}^3}{\text{lb}-\text{mol}-°R}\times\frac{520°R}{14.7\text{ psi}}\times 1{,}000{,}000 = 1.0\text{ ppmv}$$

Since 1.0 ppmv < 2,000 ppmv (or 0.2%), compliance with District Rule 4801 requirements is expected.

- Condition 4 of the requirements for proposed permit -3-1 ensures compliance with these requirements.

Unit C-3844-5-2:

$$\frac{0.000588\,lb-SOx}{MMBtu}\times\frac{MMBtu}{8{,}578\,dscf}\times\frac{1\,lb\cdot mol}{64\,lb}\times\frac{10.73\,psi\cdot ft^3}{lb\cdot mol\cdot °R}\times\frac{520°R}{14.7\,psi}\times\frac{1{,}000{,}000\cdot parts}{million}=0.41\frac{parts}{million}$$

$$SulfurConcentration = 0.41\frac{parts}{million}$$

Since 0.41 ppmv < 2,000 ppmv (or 0.2%), compliance with District Rule 4101 requirements is expected.

- Condition 15 of the requirements for proposed permit -5-2 ensures compliance with these requirements.

9. 40 CFR Part 60, Subpart GG

40 CFR Part 60 Subpart GG applies to all stationary gas turbines with a heat input greater than 10.7 gigajoules per hour (10.2 MMBtu/hr), that commence construction, modification or reconstruction after 10/03/77. Therefore, this subpart applies to the two turbines proposed in this project.

§60.332 Standard for NOx:

§60.332(b) requires that electric utility stationary gas turbines with a heat input at peak load greater than 107.2 gigajoules per hour (100 million Btu/hour) based on the lower heating value of the fuel fired shall comply with the NOx emission limit calculated using the following equation:

NO_X (% by vol at 15% O_2) 1 hour average = 0.0075x (14.4 /Y) + F

Where: Y = manufacturer's rated heat load (kJ/W-hr)
F = amount of fuel bound nitrogen

Therefore:

Y = (13,500 Btu/kW-hr) x (kW/1,000 W) x (1,054.2 J/Btu) x (kJ/1,000J)

Y = 14.2 kJ/W-hr

F= 0 (for natural gas)

Thus:

NO_X (% vol at 15% O_2) 1 hour average = 0.0075 x (14.4 / 14.2) + 0

NO_X (% vol at 15% O_2) 1 hour average = 0.0075% = 75 ppmv @ 15% O_2

The applicant is proposing a NO_X limit of 2.5 ppmv @ 15% O_2, therefore compliance with this requirement is expected.

- Condition 14 of the requirements for proposed permit -1-8 ensures compliance with these requirements.

§60.333 Standard for SOx:

§60.333(a) requires that emissions of sulfur dioxide shall not exceed 0.015 percent by volume dry @ 15% O_2 (150 ppmvd @ 15% O_2). The 150 ppmvd @ 15% O_2 limit specified in §60.333(a) is equivalent to 0.764 lb-SO_2/MMBtu. This number is determined as follows:

$$\frac{\left(150\times10^{-6}\right)\times\left(8{,}578\,\frac{ft^3}{MMBtu}\right)\times\left(64\,\frac{lb-SO_2}{lb-mol}\right)\times\left(\frac{20.95}{20.95-15}\right)}{\left(379.5\,\frac{ft^3}{lb-mol}\right)} = 0.764\,\frac{lb-SO_2}{MMBtu}$$

The turbines at this facility will be fired on natural gas fuel with a sulfur content limit of 1.0 grain per 100 scf (equivalent to 0.00285 lb-SO_x/MMBtu). Therefore, compliance with this requirement is expected.

- Condition 10 of the requirements for proposed permit -1-8 ensures compliance with these requirements.

§60.334 Monitoring of Operations

§60.334(a) requires the owner/operator of any stationary gas turbine using water injection to control NO_X to install and operate a continuous monitoring system to monitor and record fuel consumption and ratio to water to fuel fired. Since the turbines at this facility operate with an option that allows the turbines to be operated with or without water injection, a continuous monitoring system is required.

§60.334(b) states that the owner or operator of any stationary gas turbine that commenced construction, reconstruction or modification after October 3, 1977, but before July 8, 2004, and which uses water or steam injection to control NO_X emissions may, as an alternative to operating the continuous monitoring system described in paragraph (a) of this section, install, certify, maintain, operate, and quality-assure a continuous emission monitoring system (CEMS) consisting of NO_X and O_2 monitors. The turbines at this facility are equipped with a CEMS.

§60.334(c) states that for any turbine that commenced construction, reconstruction or modification after October 3, 1977, but before July 8, 2004, and which does not use steam or water injection to control NO_X emissions, the owner or operator may, but is not required to, for purposes of determining excess emissions, use a CEMS that meets the requirements of paragraph (b) of this section. The turbines at this facility are equipped with a CEMS.

§60.334(h)(1) states that the facility shall monitor the total sulfur content of the fuel being fired in the turbine, except as provided in paragraph (h)(3) of this section. As discussed in paragraph (h)(3) below, the facility will not be required to monitor the sulfur content of their fuel.

§60.334(h)(2) states that the facility shall monitor the nitrogen content of the fuel combusted in the turbine, if the owner or operator claims an allowance for fuel bound nitrogen (*i.e.* , if an F-value greater than zero is being or will be used by the owner or operator to calculate STD in §60.332). The nitrogen content of the fuel shall be determined using methods described in §60.335(b)(9) or an approved alternative. The turbines at this facility are equipped with a CEMS that will continuously monitor NO_X emissions.

- Condition 6 of the requirements for proposed permit -1-8 ensures compliance with the requirements in the sections above.

§60.334(h)(3)(i) and (ii) requires the owner or operator to keep sulfur content records using valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, specifying that the maximum sulfur content of the fuel is 20 grains/100 scf or less or perform a *representative fuel sampling* to show the sulfur content of gaseous fuel does not exceed 20 grains/100 scf.

- Condition 28 of the requirements for proposed permit -1-8 ensures compliance with these requirements.

§60.334(j) states that for each affected unit that elects to continuously monitor parameters or emissions, or to periodically determine the fuel sulfur content or fuel nitrogen content under this subpart, the owner or operator shall submit reports of excess emissions and monitor downtime, in accordance with §60.7(c). Excess emissions shall be reported for all periods of unit operation, including startup, shutdown and malfunction.

- Condition 30 of the requirements for proposed permit -1-8 ensures compliance with these requirements.

§60.334(j)(1)(iii)(A) states for turbines using NO_X and diluent CEMS, a hour of excess emissions shall be any unit operating hour in which the 4-hour rolling average NO_X concentration exceeds the applicable emission limit in §60.332(a)(1) or (2). For the purposes of this subpart, a "4-hour rolling average NO_X concentration" is the arithmetic average of the average NO_X concentration measured by the CEMS for a given hour (corrected to 15 percent $O_2$and, if required under §60.335(b)(1), to ISO standard conditions) and the three unit operating hour average NO_X concentrations immediately preceding that unit operating hour.

- Condition 29 of the requirements for proposed permit -1-8 ensures compliance with these requirements.

§60.334(j)(2)(i) states for samples of gaseous fuel and for oil samples obtained using daily sampling, flow proportional sampling, or sampling for the unit's storage tank, an excess sulfur dioxide emissions occurs each unit operating hour included in the period beginning on the date and hour of any sample for which sulfur content of the fuel fired in the gas turbine exceeds 0.8% (by weight) and ending on the date and hour that a subsequent sample is taken that demonstrate compliance with the sulfur limit. The permit unit is permitted with a SOx emission rate of 0.1 lb-S/100 dscf. Therefore, it is not necessary to define a less stringent limit.

§60.334(j)(2)(ii) defines excess sulfur dioxide emissions when each delivery of fuel oil has been selected. This turbine is fired exclusively on natural gas fuel. Thus, requirements of this section are not applicable.

§60.334(j)(5) requires the owner or operator to postmarked the reports required under §60.7(c) by the 30th day following the end of each 6-month period.

- Condition 30 of the requirements for proposed permit -1-8 ensures compliance with these requirements.

§60.335 Test Methods and Procedure

§60.335(a) states that the owner or operator shall conduct the performance tests required in §60.8 using EPA Method 20, ASTM D6522-00 or EPA Method 7E and either EPA Method 3 or 3A to determine NOx and diluent concentration. Sampling traverse points are to be selected following Method 20 or Method 1.

§60.335(b)(1) states that for each run of the performance test, the mean nitrogen oxide emission concentration @ 15% O_2 shall be corrected to ISO standard conditions using the equation listed in this section to demonstrate compliance with NSPS NOx standard.

§60.335(b)(2) states that the 3-run performance test must be performed within +/-5% at 30, 50, 75, and 90-to-100 percent of peak load or at four evenly-spaced load points in the normal operating range of the gas turbine, including the minimum point in the operating range and 90-to-100 percent of peak load, or at the highest achievable load point if 90-to-100 percent of peak load cannot be physically achieved in practice.

- Condition 24 of the requirements for proposed permit -1-8 ensures compliance with the requirements of these sections.

10. 40 CFR Part 60, Subpart IIII

This rule incorporates NSPS from Part 60, Chapter 1, Title 40, Code of Federal Regulations (CFR); and applies to all new sources of air pollution and modifications of existing sources of air pollution listed in 40 CFR Part 60. 40 CFR Part 60, Subpart IIII is the only subpart that applies to compression-ignited internal combustion engines.

§60.4200(a) states that the provisions of this subpart apply to owners and operators of stationary compression ignition (CI) internal combustion engines as specified below:

(1) Manufacturers of stationary CI ICE with a displacement of less than 30 liters per cylinder where the model year is:
(i) 2007 or later, for engines that are not fire pumps engines.
(ii) The model is listed in Table 3 of this subpart of later model year, for fire pump engines.

Unit -3-1 was manufactured in 1997. Therefore, this paragraph does not apply to this engine.

(2) Owners or operators of stationary CI ICE that commence construction after July 11, 2005, where the stationary CI ICE are:
(i) Manufactured after April 1, 2006, and are not fire pump engines, or
(ii) Manufactured as a certified NFPA fire pump engine after July 1, 2006.

Unit -3-1 was installed in 2007, however it was manufactured in 1997. Therefore, this paragraph does not apply to this engine.

(3) Owners or operators of any stationary CI ICE that are modified or reconstructed after July 11, 2005 and any person that modifies or reconstructs any stationary CI ICE after July 11, 2005.

Unit -3-1 has not been modified or reconstructed since its installation in 2007. Therefore, this paragraph does not apply to this engine.

(4) The provisions of section 60.4208 of this subpart are applicable to all owners and operators of stationary CI ICE that commence construction after July 11, 2005.

The ATC for unit -3 was issued in 2004. Since the commence construction date is the date the engine was ordered by the facility, it will be assumed that the facility ordered the engine shortly after receiving their ATC. Therefore, this paragraph does not apply to this engine.

11. 40 CFR Part 60, Subpart JJJJ

§60.4230 (a) states that the provisions of this subpart are applicable to manufacturers, owners, and operators of stationary spark ignition (SI) internal combustion engines (ICE) as specified in paragraphs (a)(1) through (6) of this section. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.

Sections (a)(1) through (a)(3) only apply to manufactures of engines; therefore unit -5-2 is not subject to these requirements.

Section (a)(4) applies to owners and operators of stationary SI ICE that commence construction after June 12, 2006. Unit -5-2 was installed prior to June 12, 2006 therefore; it is not subject to the requirements of this section.

Section (a)(5) applies to owners and operators of stationary SI ICE that are modified or reconstructed after June 12, 2006, and any person that modifies or reconstructs any stationary SI ICE after June 12, 2006. Unit -5-2 was not modified or reconstructed after June 12, 2006 therefore; it is not subject to the requirements of this section.

Section (a)(6) applies to all owners and operators of stationary SI ICE that commence construction after June 12, 2006. Unit -5-2 was installed prior to June 12, 2006 therefore; it is not subject to the requirements of this section.

Based on the discussion above, unit -5-2 is not subject to the requirements of this subpart.

12. 40 CFR Part 60, Subpart KKKK

40 CFR Part 60 Subpart KKKK applies to all stationary gas turbines rated at greater than or equal to 10 MMBtu/hr that commence construction, modification, or reconstruction after February 18, 2005. The gas turbines involved in this project were installed prior to February 18, 2005. Therefore, this subpart does not apply to these gas turbines.

13. 40 CFR Part 60, Subpart ZZZZ

This subpart is applicable to any stationary spark-ignited reciprocating internal combustion engine at a major or area source of HAP (Hazardous Air Pollutant) emissions, except if the stationary engine is being tested at a stationary engine test cell/stand. A major source of HAP emissions is a facility that has the potential to emit any single HAP at a rate of 10 tons/year or greater or any combinations of HAPs at a rate of 25 tons/year or greater.

§63.6585 states that a facility is subject to this subpart if they own or operate a stationary RICE at a major or area source of HAP emissions, except if the stationary RICE is being tested at a stationary RICE test cell/stand.

Unit C-3844-3:

Unit -3 is a black start engine located at an area source of HAP emissions; therefore this engine is subject to the requirements of this subpart. § 63.6675 defines a black start engine is an engine whose only purpose is to start up a combustion turbine.

Unit C-3844-5:

Unit -5 is a fulltime spark ignited engines located at an area source of HAP emissions; therefore this engine is subject to the requirements of this subpart.

§63.6595 states that if you have an existing stationary RICE, excluding existing non-emergency CI stationary RICE, with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than June 15, 2007. If you have an existing non-emergency CI stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, an existing stationary CI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary CI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than May 3, 2013. If you have an existing stationary SI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary SI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than October 19, 2013.

Unit C-3844-3:

Unit -3 is a CI black start engine located at an area source of HAP emissions; therefore this engine is required to meet the requirements of this subpart on May 3, 2013.

- Condition 15 of the requirements for proposed permit -3-1 ensures compliance with these requirements.

Unit C-3844-5:

Unit -5 is a SI engine located at an area source of HAP emissions; therefore this engine is required to meet the requirements of this subpart on October 19, 2013.

- Condition 27 of the requirements for proposed permit -5-2 ensures compliance with these requirements.

§63.6603 (a) states that if you own or operate an existing stationary RICE located at an area source of HAP emissions, you must comply with the requirements in Table 2d to this subpart and the operating limitations in Table 1b and Table 2b to this subpart that apply to you.

Unit C-3844-3:

- Conditions 11, 12, and 13 of the requirements for proposed permit -3-1 ensures compliance with these requirements.

Unit C-3844-5:

- Conditions 28, 29, and 30 of the requirements for proposed permit -5-2 ensures compliance with these requirements.

§63.6625 (h) states that if you operate a new, reconstructed, or existing stationary engine, you must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Tables 1a, 2a, 2c, and 2d to this subpart apply.

Unit C-3844-3:

- Condition 16 of the requirements for proposed permit -3-1 ensures compliance with these requirements.

Unit C-3844-5:

- Condition 26 of the requirements for proposed permit -5-2 ensures compliance with these requirements.

§63.6655(a) states that if you must comply with the emission and operating limitations, you must keep the records described in paragraphs (a)(1) through (a)(5), (b)(1) through (b)(3) and (c) of this section.

(5) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirement in §63.10(b)(2)(xiv).
(6) Records of the occurrence and duration of each malfunction of operation (*i.e.,* process equipment) or the air pollution control and monitoring equipment.
(7) Records of performance tests and performance evaluations as required in §63.10(b)(2)(viii).
(8) Records of all required maintenance performed on the air pollution control and monitoring equipment.
(9) Records of actions taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

Unit C-3844-3:

- Conditions 17 and 18 of the requirements for proposed permit -3-1 ensures compliance with these requirements.

Unit C-3844-5:

- Conditions 31, 32, and 33 of the requirements for proposed permit -5-2 ensures compliance with these requirements.

§63.6660 discusses the form records should be maintain in and the duration these records shall be kept for.

a) Your records must be in a form suitable and readily available for expeditious review according to §63.10(b)(1).
b) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

c) You must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1).

Unit C-3844-3:

- Condition 10 of the requirements for proposed permit -3-1 ensures compliance with these requirements.

Unit C-3844-5:

- Condition 25 of the requirements for proposed permit -5-2 ensures compliance with these requirements.

Table 2dto Subpart ZZZZ of Part 63— Requirements for Existing Stationary RICE Located at Area Sources of HAP Emissions

As stated in §§63.6603 and 63.6640, you must comply with the following requirements for existing stationary RICE located at area sources of HAP emissions:

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
4. Emergency stationary CI RICE and black start stationary CI RICE.	a. Change oil and filter every 500 hours of operation or annually, whichever comes first;[1]	
	b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; and	
	c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	
9. Non-emergency, non-black start 4SRB stationary RICE ≤500 HP	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first;[1]	

	b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first; and	
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.	

[1]Sources have the option to utilize an oil analysis program as described in §63.6625(i) in order to extend the specified oil change requirement in Table 2d of this subpart.

Unit C-3844-3:

- Conditions 11, 12, and 13 of the requirements for proposed permit 3-1 ensure compliance with these requirements.

Unit C-3844-5:

- Conditions 28, 29, and 30 of the requirements for proposed permit -3-1 ensure compliance with these requirements.

14. 40 CFR Part 64, CAM

40 CFR Part 64 requires Compliance Assurance Monitoring (CAM) for units that meet the following three criteria:

1) the unit must have an 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 the major source thresholds.

Pollutant	Major Source Threshold (lb/year)
VOC	20,000
NO_X	20,000
CO	200,000
PM_{10}	140,000
SO_X	140,000

a) **C-3844-1-8:** 49.9 MW NOMINALLY RATED SIMPLE-CYCLE PEAK-DEMAND ELECTRICAL POWER GENERATING SYSTEM CONSISTING OF TWO 25.0 MW PRATT & WHITNEY MODEL #FT4C1 NATURAL GAS-FIRED (TWINPAC CONFIGURATION) GAS TURBINE ENGINES (GTE) WITH DRY LOW NOX (DLN) OR WATER INJECTION TECHNOLOGY, A SHARED SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM WITH OXIDATION CATALYSTS AND INLET AIR FOGGING

1) This unit contains emission limits for NO_X, SO_x, PM_{10}, CO and VOC.
2) This unit is served by a SCR system to control NO_X emissions and an oxidation catalyst to control CO emissions.
3) The SCR system will be assumed to have a NO_X control efficiency of 90%. The oxidation catalyst will be assumed to have a CO control efficiency of 80%.

Pre-control Annual PE:

NO_X:

PE = 22,816 lb/year (permit condition)

Pre-control PE = PE ÷ (1 – CE)
= (22,816 lb-NO_X/year) ÷ (1 – 0.9)
= **228,160 lb-NO_X/year**

Since 228,160 lb-NO_X/yr > 20,000 lb-NO_X/yr (Major Source threshold for NO_X), this unit is subject to CAM for NO_X emissions.

The facility operates a CEM system to monitor NO_X, CO, and O2 emissions from this turbine therefore, CAM is not applicable and the equipment is exempt from CAM requirements. The standard conditions that require the CEMs to be installed, calibrated, maintained, and require the data to be reported ensure that the equipment will remain exempt from CAM requirements.

CO:

PE = 89,032 lb/year (permit condition)

Pre-control PE = PE ÷ (1 – CE)
= (89,032 lb-CO/year) ÷ (1 – 0.8)
= **445,160 lb-CO/year**

Since 445,160 lb-CO/yr > 200,000 lb-CO/yr (Major Source threshold for CO), this unit is subject to CAM for CO emissions.

The facility operates a CEM system to monitor NO_X, CO, and O2 emissions from this turbine therefore, CAM is not applicable and the equipment is exempt from CAM requirements. The standard conditions that require the CEMs to be installed, calibrated, maintained, and require the data to be reported ensure that the equipment will remain exempt from CAM requirements.

b. C-3844-3-1: 440 HP CATERPILLAR MODEL 3406 TA DIESEL-FIRED LOW USE IC ENGINE POWERING A COMPRESSOR TO START THE GAS TURBINES (C-3844-1)

1) This unit contains emission limits for NO_X, SO_x, PM_{10}, CO and VOC.
2) There are no add-on controls for the pollutants listed above; therefore this unit is not subject to CAM.

c. C-3844-5-2: 329 BHP CAT MODEL #G379 RICH-BURN NATURAL GAS-FIRED IC ENGINE POWERING AN ELECTRICAL GENERATOR AND SERVED BY A 3-WAY CATALYST

1) This unit contains emission limits for NO_X, SO_x, PM_{10}, CO and VOC.
2) This unit is served by a NSCR system to control NO_X, CO, and VOC emissions.
3) The NSCR system will be assumed to have a NO_X control efficiency of 90%, a CO control efficiency of 80%, and a VOC control efficiency of 50%. (*Update On Emissions – Form 960, Second Editions, Waukesha Engine Division, Dresser Industries, October 1991*)

Pre-control Annual PE:

NO_X:

PE = (0.072 lb-NO_X/hp-hr) x (329 hp) x (8,760 hr/yr) x (1 lb/453.6 g)
= 457 lb-NO_X/year

Pre-control PE = PE ÷ (1 – CE)
= (457 lb-NO_X/year) ÷ (1 – 0.9)
= **4,570 lb-NO_X/year**

Since 4,570 lb-NO_X/yr < 20,000 lb-NO_X/yr (Major Source threshold for NO_X), this unit is not subject to CAM for NO_X emissions.

CO:

PE = (5.69 lb-CO/hp-hr) x (329 hp) x (8,760 hr/yr) x (1 lb/453.6 g)
= 36,152 lb-CO/year

Pre-control PE = PE ÷ (1 – CE)
= (36,152 lb-CO/year) ÷ (1 – 0.8)
= **180,763lb-CO/year**

Since 180,763 lb-CO/yr < 200,000 lb-CO/yr (Major Source threshold for CO), this unit is not subject to CAM for CO emissions.

VOC:

PE = (0.125 lb-VOC/hp-hr) x (329 hp) x (8,760 hr/yr) x (1 lb/453.6 g)
= 794 lb-VOC/year

Pre-control PE = PE ÷ (1 – CE)
= (794 lb-NO_X/year) ÷ (1 – 0.5)
= **1,588 lb-NO_X/year**

Since 1,588 lb-VOC/yr < 20,000 lb-VOC/yr (Major Source threshold for VOC), this unit is not subject to CAM for VOC emissions.

X. 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

By using the model general permit template listed in Section IV of this evaluation, the applicant has requested that a permit shield be issued for requirements addressed in the template. The basis for each permit shield is discussed in the Permit Shield section of each template.

XI. PERMIT CONDITIONS

See draft operating permit beginning on the following page.

San Joaquin Valley
Air Pollution Control District

FACILITY: C-3844-0-1 **EXPIRATION DATE:** 11/30/2016

FACILITY-WIDE REQUIREMENTS

1. {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
2. {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
3. {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
4. {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
5. {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
6. {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
7. {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
8. {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

9. {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

10. {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

11. {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

12. {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

13. {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

14. {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

15. {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

16. {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

17. {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

18. {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

19. {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

20. {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

21. {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

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

22. {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

23. {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

24. {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

25. {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

26. {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

27. {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

28. {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

29. {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

30. {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

31. {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

32. {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

33. {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

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

34. {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

35. {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

36. {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

37. {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

38. {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

39. {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

40. {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 (12/17/09); 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

41. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

42. On (MONTH DAY, YEAR), 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

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-3844-1-8 **EXPIRATION DATE:** 11/30/2016

EQUIPMENT DESCRIPTION:
49.9 MW NOMINALLY RATED SIMPLE-CYCLE PEAK-DEMAND ELECTRICAL POWER GENERATING SYSTEM CONSISTING OF TWO 25.0 MW PRATT & WHITNEY MODEL #FT4C1 NATURAL GAS-FIRED (TWINPAC CONFIGURATION) GAS TURBINE ENGINES (GTE) WITH DRY LOW NOX (DLN) OR WATER INJECTION TECHNOLOGY, A SHARED SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM WITH OXIDATION CATALYSTS AND INLET AIR FOGGING

PERMIT UNIT REQUIREMENTS

1. 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 Rule 2201] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. Both turbine engines shall be operated simultaneously, except during start up and shut down. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Gas turbine engines 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. Gas turbine engines shall be equipped with a continuous monitoring system to measure and record hours of operation and fuel consumption. [District Rules 2201 and 4703, and 40 CFR 60, GG] Federally Enforceable Through Title V Permit
6. Gas turbine engines shall be equipped with a single continuous emissions monitor (CEM) for NOx (before and after SCR system), CO, and O2. The CEM shall meet the requirements of 40 CFR part 60, Appendix F and shall be capable of monitoring emissions during startups and shutdowns as well as during normal operating conditions. [District Rules 2201 and 4703, and 40 CFR 60, GG] Federally Enforceable Through Title V Permit
7. 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
8. 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
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. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081] 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.

10. Gas turbine engines shall be fired exclusively on natural gas with a sulfur content of no greater than 1.0 grain of sulfur compounds (as S) per 100 dry scf of natural gas. [District Rules 2201 and 4801, and 40 CFR 60, GG] Federally Enforceable Through Title V Permit

11. Combined annual emissions from units C-3844-1 and C-3844-5 shall not exceed any of the following limits: 22,816 lb-NOx/year, 7,068 lb-SOx/year, 16,368 lb-PM10/year, 89,032 lb-CO/year, or 6,448 lb-VOC/year. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Maximum annual heat input for both natural gas-fired turbine engines combined shall not exceed 2,480,000 MMBtu/year, measured on a calendar year period. [District Rule 2201] Federally Enforceable Through Title V Permit

13. Daily combined NOx emissions from both natural gas-fired turbine engines shall not exceed 148.8 lb-NOx/day, measured on a 24 hour rolling period. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Annual combined NOx emissions from both natural gas-fired turbine engines shall not exceed 22,816 lb-NOx/year, measured on a calendar year period. [District Rule 2201] Federally Enforceable Through Title V Permit

15. Except during thermal stabilization periods, combined emissions from both natural gas-fired turbine engines shall not exceed any of the following limits: 6.20 lb-NOx/hour (as NO2) equivalent to 2.5 ppmvd @ 15% O2, 1.92 lb-SOx/hour (as SO2), 4.45 lb-PM10/hour, 24.20 lb-CO/hour equivalent to 16.0 ppmvd @ 15% O2, 1.75 lb-VOC/hour (as methane) equivalent to 2.0 ppmv @ 15% O2, or 10 ppmv ammonia @ 15% O2. All emission limits are based on one (1) hour rolling averages. [District Rules 2201 and 4703, and 40 CFR 60, GG] Federally Enforceable Through Title V Permit

16. During periods of thermal stabilization, combined emissions from both natural gas-fired turbine engines shall not exceed any of the following limits: 25.0 lb-NOx/hour (as NO2), 1.92 lb-SOx/hour (as SO2), 4.45 lb-PM10/hour, 24.20 lb-CO/hour, or 1.75 lb-VOC/hour (as methane), based on one hour averages. [District Rules 2201 and 4703, and 40 CFR 60, GG] Federally Enforceable Through Title V Permit

17. Thermal stabilization is defined as the start up or shut down time during which the exhaust gas is not within the normal operating temperature range, not to exceed two hours as stated in Section 3.25 of Rule 4703. [District Rule 4703] Federally Enforceable Through Title V Permit

18. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup and shutdown. [District Rule 4703] Federally Enforceable Through Title V Permit

19. Compliance testing to measure NOx (as NO2), PM10, CO, VOC, ammonia emissions, and fuel gas sulfur content requirements of this permit shall be conducted at least once every twelve months. [District Rules 2201 and 4703, and 40 CFR 60, GG] Federally Enforceable Through Title V Permit

20. Compliance testing to measure NOx (as NO2), CO, and ammonia emissions shall be conducted within 60 days of switching the turbine combustion emission control technology from Dry Low NOx (DLN) to water injection technology, or vice versa. [District Rules 2201 and 40 CFR 60 GG] Federally Enforceable Through Title V Permit

21. Compliance testing shall be required at least once per twelve-month period for which the technology is used. Switching the turbine combustion emission control technology from Dry Low NOx (DLN) to water injection technology, or vice versa, shall not be required solely for source testing purposes. [District Rule 2201 and 40 CFR 60, GG] Federally Enforceable Through Title V Permit

22. Compliance with ammonia slip limit shall be demonstrated by using the following calculation procedure: ammonia slip ppmv @ 15% O2 = {[a-(b x c/1,000,000)] x 1,000,000/b}, where a = ammonia injection rate (lb/hr)/17 (lb/lb mol), b = dry exhaust gas flow rate (lb/hr)/29 (lb/lb mol), and c = change in measured NOx concentration ppmv at 15% O2 across the catalyst. [District Rule 4102]

23. Compliance 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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

24. The following test methods shall be used, PM10: EPA Method 5 (front half and back half), NOx: EPA Method 7E or 20, CO: EPA Method 10 or 10B, O2: EPA Method 3, 3A, or 20, VOC: EPA Method 18 or 25, ammonia: BAAQMD ST-1B, and fuel gas sulfur content: ASTM D3246. Alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4703, and 40 CFR 60, GG] Federally Enforceable Through Title V Permit

25. 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

26. 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

27. The owner/operator shall perform a relative accuracy test audit (RATA) as specified by 40 CFR Part 60, Appendix F, 5.11, at least once every four calendar quarters. 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

28. Demonstration of compliance with the annual average sulfur content limit shall be demonstrated by a 12 month rolling average of the sulfur content either (i) documented in a valid purchase contract, a supplier certification, a tariff sheet or transportation contract or (ii) tested using ASTM Methods D1072, D3246, D4084, D4468, D4810, D6228, D6667 or Gas Processors Association Standard 2377. [District Rule 1081 and 40 CFR 60, GG] Federally Enforceable Through Title V Permit

29. Excess emissions shall be defined as any operating hour in which the 4-hour or 30-day rolling average NOx concentration exceeds applicable emissions limit and a period of monitor downtime shall be any unit operating hour in which sufficient data are not obtained to validate the hour for either NOx or O2 (or both). [40 CFR 60, GG] Federally Enforceable Through Title V Permit

30. The permittee shall submit a written report to the APCO for each calendar quarter, within 30 days of the end of the quarter, including: time intervals, data and magnitude of excess emissions, nature and cause of excess emissions (if known), corrective actions taken and preventive measures adopted; averaging period used for data reporting shall correspond to the averaging period for each respective 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; and a negative declaration when no excess emissions occurred. [District Rule 1080 and 40 CFR 60, GG] Federally Enforceable Through Title V Permit

31. The permittee shall submit to the District information correlating the NOx control system operating parameters to the associated measured NOx output. The information must be sufficient to allow the District to determine compliance with the NOx emission limits of this permit when no continuous emission monitoring data for NOx is available or when continuous emission monitoring system is not operating properly. [District Rule 4703] Federally Enforceable Through Title V Permit

32. The owner or operator shall maintain a stationary gas turbine system operating log that includes, on a daily basis, the actual local time start-up and stop time, length and reason for reduced load periods, total hours of operation, and type and quantity of fuel used. [District Rule 4703] Federally Enforceable Through Title V Permit

33. The permittee shall maintain the following records: date and time, duration, and type of any startup, shutdown, or malfunction; performance testing, evaluations, calibrations, checks, adjustments, any period during which a continuous monitoring system or monitoring device was inoperative, and maintenance of any continuous emission monitor. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

34. The permittee shall maintain the following records: hours of operation, fuel consumption (scf/hr and scf/rolling twelve month period), continuous emission monitor measurements, and calculated NOx mass emission rates (lb/hr). [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

35. All records shall be maintained, retained on-site for a minimum of five (5) years and shall be made available for District inspection upon request. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-3844-3-1 **EXPIRATION DATE:** 11/30/2016

EQUIPMENT DESCRIPTION:
440 HP CATERPILLAR MODEL 3406 TA DIESEL-FIRED LOW USE IC ENGINE POWERING A COMPRESSOR TO START THE GAS TURBINES (C-3844-1)

PERMIT UNIT REQUIREMENTS

1. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
4. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801, and 17 CCR 93115] Federally Enforceable Through Title V Permit
5. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. Total time shall include all operational use and operation for maintenance and testing purposes. [District Rule 4702, and 17 CCR 93115] Federally Enforceable Through Title V Permit
6. Operation of this engine for all purposes shall not exceed 1 hour per day and 50 hours per year. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
7. Emissions from this engine shall not exceed any of the following limits: 6.9 g-NOx/hp-hr, 3.03 g-CO/hp-hr or 1.12 g-VOC/hp-hr. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Emissions from this engine shall not exceed 0.1 g-PM10/hp-hr based on US EPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
9. During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] Federally Enforceable Through Title V Permit
10. The permittee shall maintain daily and annual records of operation. Records shall include the date, the number of hours of operation, the quantity of diesel fuel used, and the purpose of the operation (e.g., startup of turbine, testing, maintenance, etc.). Such records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070 and 4702, and 40 CFR 60, ZZZZ] Federally Enforceable Through Title V Permit
11. On and after May 3, 2013, the engine's oil and filter shall be changed every 500 hours of operation or every 12 months, whichever comes first. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit
12. On and after May 3, 2013, the engine's air filter shall be inspected every 1,000 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. On and after May 3, 2013, the engine's hoses and belts shall be inspected every 500 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

14. On and after May 3, 2013, the permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d of Subpart ZZZZ. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

15. On and after May 3, 2013, the engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

16. On and after May 3, 2013, the permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [District Rule ZZZZ] Federally Enforceable Through Title V Permit

17. On and after May 3, 2013, the permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [District Rule ZZZZ] Federally Enforceable Through Title V Permit

18. On and after May 3, 2013, the permittee shall maintain monthly records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of action taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [District Rule ZZZZ] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-3844-5-2 **EXPIRATION DATE:** 11/30/2016

DRAFT

EQUIPMENT DESCRIPTION:
329 BHP CAT MODEL #G379 RICH-BURN NATURAL GAS-FIRED IC ENGINE POWERING AN ELECTRICAL GENERATOR AND SERVED BY A 3-WAY CATALYST

PERMIT UNIT REQUIREMENTS

1. No modification to this unit shall be performed without an Authority to Construct for such modification(s), except for changes specified in conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit
2. While dormant, the fuel line shall be physically disconnected from the unit. [District Rule 2080] Federally Enforceable Through Title V Permit
3. Permittee shall submit written notification to the District upon designating the unit as dormant or active. [District Rule 2080] Federally Enforceable Through Title V Permit
4. While dormant, normal source testing shall not be required. [District Rule 2080] Federally Enforceable Through Title V Permit
5. Upon recommencing operation of this unit, normal source testing shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
6. Any source testing required by this permit shall be performed within 60 days of recommencing operation of this unit, regardless of whether the unit remains active or is again designated as dormant. [District Rule 2080] Federally Enforceable Through Title V Permit
7. Records of all dates and times that this unit is designated as dormant or active, and copies of all corresponding notices to the District, shall be maintained, retained for a period of at least five years, and made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
8. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702] Federally Enforceable Through Title V Permit
9. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
10. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
11. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702] Federally Enforceable Through Title V Permit
12. The permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier) . [District Rule 4702] Federally Enforceable Through Title V Permit

DRAFT

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. This engine shall be operated within the ranges that the source testing has shown result in pollution concentrations within the emissions limits as specified on this permit. [District Rule 4702] Federally Enforceable Through Title V Permit

14. Combined annual emissions from units C-3844-1 and -5 shall not exceed any of the following limits: 22,816 lb-NOx/year, 7,068 lb-SOx/year, 16,368 lb-PM10/year, 89,032 lb-CO/year, and 6,448 lb-VOC/year. [District Rule 2201] Federally Enforceable Through Title V Permit

15. Emissions from this IC engine shall not exceed any of the following limits: 5 ppmvd NOx @ 15% O2 (equivalent to 0.072 g-NOx/hp-hr), 0.0104 g-SOx/hp-hr, 0.071 g-PM10/hp-hr, 670 ppmvd CO @ 15% O2 (equivalent to 5.69 g-CO/hp-hr), or 25 ppmvd VOC @ 15% O2 (equivalent to 0.125 g-VOC/hp-hr). [District Rules 2201 and 4702] Federally Enforceable Through Title V Permit

16. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702] Federally Enforceable Through Title V Permit

17. Source testing to measure natural gas-combustion NOx, CO, and VOC emissions from this unit shall be measured not less than once every 24 months. [District Rule 4702] Federally Enforceable Through Title V Permit

18. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702]

19. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702] Federally Enforceable Through Title V Permit

20. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A or 25B, or ARB Method 100. [District Rules 1081 and 4702] Federally Enforceable Through Title V Permit

21. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

22. 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

23. The permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type and quantity (cubic feet of gas or gallons of liquid) of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702] Federally Enforceable Through Title V Permit

24. The permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702] Federally Enforceable Through Title V Permit

25. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 4702 and 40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

26. On and after October 19, 2013, the permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

27. On and after October 19, 2013, the engine shall be in full compliance with 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

28. On and after October 19, 2013, the engine's oil and filter shall be changed every 1,440 hours of operation or every 12 months, whichever comes first. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

29. On and after October 19, 2013, the engine's spark plugs shall be inspected every 1,440 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

30. On and after October 19, 2013, the engine's hoses and belts shall be inspected every 1,440 hours of operation or every 12 months, whichever comes first, and replaced as necessary. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

31. On and after October 19, 2013, the permittee shall maintain monthly records that include any information necessary to demonstrate compliance with 40 CFR 63, ZZZZ. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

32. On and after October 19, 2013, the permittee shall maintain monthly records of all performance tests and required maintenance performed on the air pollution control and monitoring equipment. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

33. On and after October 19, 2013, the permittee shall maintain monthly records of the occurrence and duration of each malfunction of the operation (i.e., process equipment) or the air pollution control and monitoring equipment. The permittee shall also maintain monthly records of the action(s) taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning operation and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR 63, ZZZZ] Federally Enforceable Through Title V Permit

Attachment A

Detailed Facility Printout

Detailed Facility Report

For Facility=3844 and excluding Deleted Permits
Sorted by Facility Name and Permit Number

WELLHEAD POWER PANOCHE, LLC.
43649 W PANOCHE RD
FIREBAUGH, CA 93622

FAC # **C 3844**
STATUS: **A**
TELEPHONE:

TYPE: **TitleV**
TOXIC ID:

EXPIRE ON: 11/30/2016
AREA: 3 /
INSP. DATE: 02/13

PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
C-3844-1-7	49.9 MW Power Generating System	3020-08B G	1	10,215.00	10,215.00	A	49.9 MW NOMINALLY RATED SIMPLE-CYCLE PEAK-DEMAND ELECTRICAL POWER GENERATING SYSTEM CONSISTING OF TWO 25.0 MW PRATT & WHITNEY MODEL #FT4C1 NATURAL GAS-FIRED (TWINPAC CONFIGURATION) GAS TURBINE ENGINES (GTE) WITH DRY LOW NOX (DLN) OR WATER INJECTION TECHNOLOGY, A SHARED SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM WITH OXIDATION CATALYSTS AND INLET AIR FOGGING
C-3844-3-0	440 bhp IC engine	3020-10 D	1	479.00	479.00	A	440 BHP CATERPILLAR MODEL 3406 TA DIESEL-FIRED LOW USE IC ENGINE POWERING A COMPRESSOR TO START THE GAS TURBINES (C-3844-1)
C-3844-5-1	329 BHP	3020-10 C	1	240.00	240.00	A	DORMANT 329 BHP CAT MODEL #G379 NATURAL GAS-FIRED IC ENGINE POWERING AN ELECTRICAL GENERATOR

Number of Facilities Reported: 1

Attachment B

Exempt Equipment

San Joaquin Valley
Unified Air Pollution Control District
Title V Application - INSIGNIFICANT ACTIVITIES

COMPANY NAME: Wellhead Power Panoche, LLC	FACILITY ID: C - 3844

Check the box next to the exemption category from Rule 2020 which describes any insignificant activity or equipment at your facility not requiring a permit.

Exemption Category	Rule 2020 Citation	√	Exemption Category	Rule 2020 Citation	√
Structure or incinerator assoc. with a structure designed as a dwelling for 4 families or less	4.1		Containers used to store refined lubricating oils	6.6.8	√
Locomotives, airplanes, and watercraft used to transport passengers or freight	4.4		Unvented pressure vessels used exclusively to store liquified gases or assoc with exempt equipment	6.6.9 or 6.13	
Natural gas or LPG-fired boilers or other indirect heat transfer units of 5 MMBtu/hr or less	6.1.1		Portable tanks used exclusively to store produced fluids for ≤ six months	6.6.10	
Piston-type i.c.engine with maximum continuous rating of 50 braking horsepower (bhp) or less	6.1.2		Mobile transport tanks on delivery vehicles of VOCs	6.6.11	
Gas turbine engines with maximum heat input rating of 3 MMBtu/hr or less	6.1.3		Loading racks used for the transfer of less than 4,000 gal/day of unheated organic material with initial boiling point ≥ 302 F or of fuel oil with specific gravity ≥0.8251	6.7.1.1	
Space heating equipment other than boilers	6.1.4		Loading racks used for the transfer of asphalt, crude or residual oil stored in exempt tanks, or crude oil with specific gravity ≥ 0.8762	6.7.1.2	
Cooling towers with a circulation rate less than 10,000 gal/min, and that are not used for cooling of process water, or water from barometric jets or condensers++	6.2		Equipment used exclusively for the transfer of refined lubricating oil	6.7.2	
Use of less than 2 gal/day of graphic arts materials	6.3		Equipment used to apply architectural coatings	6.8.1	
Equipment at retail establishments used to prepare food for human consumption	6.4.1		Unheated, non-conveyorized cleaning equipment with < 10 ft^2 open area; using solvents with initial boiling point ≥ 248 F; and < 25 gal/yr. evaporative losses	6.9	
Ovens at bakeries with total daily production less than 1,000 pounds and exempt by sec. 6.1.1	6.4.3		Brazing, soldering, or welding equipment	6.10	
Equipment used exclusively for extruding or compression molding of rubber or plastics, where no plastisizer or blowing agent is used	6.5		Equipment used to compress natural gas	6.11	√
Containers used to store clean produced water	6.6.1		Fugitive emissions sources assoc. with exempt equipment	6.12	
Containers ≤100 bbl used to store oil with specific gravity ≥ 0.8762	6.6.2		Pits and Ponds as defined in Rule 1020	6.15	
Containers ≤ 100 bbl installed prior to 6/1/89 used to store oil with specific gravity ≥ 0.8762	6.6.3		On-site roadmix manufacturing and the application of roadmix as a road base material	6.17	
Containers with a capacity ≤ 250 gallons used to store org-anic material where the actual storage temperature <150 F	6.6.4		Emissions less than 2 lb/day from units not included above	6.19	
Containers used to store unheated organic material with an initial boiling point ≥ 302 F	6.6.5		Venting PUC quality natural gas from for sole purpose of pipeline and compressor repair and or maintenance	7.2	
Containers used to store fuel oils or non-air-blown asphalt with specific gravity ≥0.9042	6.6.6		Non-structural repairs & maintenance to permitted equipment	7.3	
Containers used to store petroleum distillates used as motor fuel with specific gravity ≥ 0.8251	6.6.7		Detonation of explosives ≤ 100 lb/day and 1,000 lb/year	7.4	

☐ No insignificant activities (Check this box if no equipment in the above categories exist at your facility.)

Attachment C

Template Qualification Form

Title V General Permit Template Qualification Form for Facility-wide Umbrella General Permit Template

District facility ID # C-3844

To use this template, remove this sheet and attach to application. The conditions outlined in this template will be placed on your Title V permit.

Any facility may use this facility-wide template as part of its Title V application.

Based on information and belief formed after reasonable inquiry: 1) the information on this form is true and correct and 2) the facility certifies compliance with this template's permit conditions.

Signature of Responsible Official

5/5/2011
Date

Paul Cummins

Name of Responsible Official (Please Print)

Attachment D

Current Permits to Operate

San Joaquin Valley
Air Pollution Control District

FACILITY: C-3844-0-0 **EXPIRATION DATE:** 11/30/2016

FACILITY-WIDE REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-3844-1-7 **EXPIRATION DATE:** 11/30/2016

EQUIPMENT DESCRIPTION:
49.9 MW NOMINALLY RATED SIMPLE-CYCLE PEAK-DEMAND ELECTRICAL POWER GENERATING SYSTEM CONSISTING OF TWO 25.0 MW PRATT & WHITNEY MODEL #FT4C1 NATURAL GAS-FIRED (TWINPAC CONFIGURATION) GAS TURBINE ENGINES (GTE) WITH DRY LOW NOX (DLN) OR WATER INJECTION TECHNOLOGY, A SHARED SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM WITH OXIDATION CATALYSTS AND INLET AIR FOGGING

PERMIT UNIT REQUIREMENTS

1. 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 Rule 2201]
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
3. Both turbine engines shall be operated simultaneously, except during start up and shut down. [District Rule 2201]
4. Gas turbine engines 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]
5. Gas turbine engines shall be equipped with a continuous monitoring system to measure and record hours of operation and fuel consumption. [District Rules 2201, 4001, and 4703]
6. Gas turbine engines shall be equipped with a single continuous emissions monitor (CEM) for NOx (before and after SCR system), CO, and O2. The CEM shall meet the requirements of 40 CFR part 60 and shall be capable of monitoring emissions during startups and shutdowns as well as during normal operating conditions. [District Rules 2201, 4001, and 4703]
7. 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]
8. 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]
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. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Emission Monitoring and Testing. [District Rule 1081]
10. Gas turbine engines shall be fired exclusively on natural gas with a sulfur content of no greater than 1.0 grain of sulfur compounds (as S) per 100 dry scf of natural gas. [District Rule 2201]
11. Combined annual emissions from units C-3844-1 and C-3844-5 shall not exceed any of the following limits: 22,816 lb-NOx/year, 7,068 lb-SOx/year, 16,368 lb-PM10/year, 89,032 lb-CO/year, or 6,448 lb-VOC/year. [District Rule 2201]
12. Maximum annual heat input for both natural gas-fired turbine engines combined shall not exceed 2,480,000 MMBtu/year, measured on a calendar year period. [District Rule 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. Daily combined NOx emissions from both natural gas-fired turbine engines shall not exceed 148.8 lb-NOx/day, measured on a 24 hour rolling period. [District Rule 2201]

14. Annual combined NOx emissions from both natural gas-fired turbine engines shall not exceed 22,816 lb-NOx/year, measured on a calendar year period. [District Rule 2201]

15. Except during thermal stabilization periods, combined emissions from both natural gas-fired turbine engines shall not exceed any of the following limits: 6.20 lb-NOx/hour (as NO2) equivalent to 2.5 ppmvd @ 15% O2, 1.92 lb-SOx/hour (as SO2), 4.45 lb-PM10/hour, 24.20 lb-CO/hour equivalent to 16.0 ppmvd @ 15% O2, 1.75 lb-VOC/hour (as methane) equivalent to 2.0 ppmv @ 15% O2, or 10 ppmv ammonia @ 15% O2. All emission limits are based on one (1) hour rolling averages. [District Rules 2201, 4001, and 4703]

16. During periods of thermal stabilization, combined emissions from both natural gas-fired turbine engines shall not exceed any of the following limits: 25.0 lb-NOx/hour (as NO2), 1.92 lb-SOx/hour (as SO2), 4.45 lb-PM10/hour, 24.20 lb-CO/hour, or 1.75 lb-VOC/hour (as methane), based on one hour averages. [District Rules 2201, 4001, and 4703]

17. Thermal stabilization is defined as the start up or shut down time during which the exhaust gas is not within the normal operating temperature range, not to exceed two hours as stated in Section 3.25 of Rule 4703. [District Rule 4703]

18. Compliance testing to measure NOx (as NO2), PM10, CO, VOC, ammonia emissions, and fuel gas sulfur content requirements of this permit shall be conducted at least once every twelve months. [District Rules 2201, 4001, and 4703]

19. Compliance testing to measure NOx (as NO2), CO, and ammonia emissions shall be conducted within 60 days of switching the turbine combustion emission control technology from Dry Low NOx (DLN) to water injection technology, or vice versa. [District Rules 2201 and 4001]

20. Compliance testing shall be required at least once per twelve-month period for which the technology is used. Switching the turbine combustion emission control technology from Dry Low NOx (DLN) to water injection technology, or vice versa, shall not be required solely for source testing purposes. [District Rules 2201 and 4001]

21. Compliance with ammonia slip limit shall be demonstrated by using the following calculation procedure: ammonia slip ppmv @ 15% O2 = {[a-(b x c/1,000,000)] x 1,000,000/b}, where a = ammonia injection rate (lb/hr)/17 (lb/lb mol), b = dry exhaust gas flow rate (lb/hr)/29 (lb/lb mol), and c = change in measured NOx concentration ppmv at 15% O2 across the catalyst. [District Rule 4102]

22. Compliance 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]

23. The following test methods shall be used, PM10: EPA Method 5 (front half and back half), NOx: EPA Method 7E or 20, CO: EPA Method 10 or 10B, O2: EPA Method 3, 3A, or 20, VOC: EPA Method 18 or 25, ammonia: BAAQMD ST-1B, and fuel gas sulfur content: ASTM D3246. 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]

24. The permittee shall maintain the following records: date and time, duration, and type of any startup, shutdown, or malfunction; performance testing, evaluations, calibrations, checks, adjustments, any period during which a continuous monitoring system or monitoring device was inoperative, and maintenance of any continuous emission monitor. [District Rules 2201 and 4703]

25. The permittee shall maintain the following records: hours of operation, fuel consumption (scf/hr and scf/rolling twelve month period), continuous emission monitor measurements, and calculated NOx mass emission rates (lb/hr). [District Rules 2201 and 4703]

26. 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]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

27. 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]

28. The owner/operator shall perform a relative accuracy test audit (RATA) as specified by 40 CFR Part 60, Appendix F, 5.11, at least once every four calendar quarters. 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]

29. 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]

30. The permittee shall submit a written report to the APCO for each calendar quarter, within 30 days of the end of the quarter, including: time intervals, data and magnitude of excess emissions, nature and cause of excess emissions (if known), corrective actions taken and preventive measures adopted; averaging period used for data reporting shall correspond to the averaging period for each respective 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; and a negative declaration when no excess emissions occurred. [District Rule 1080]

31. All records shall be maintained, retained on-site for a minimum of five (5) years and shall be made available for District inspection upon request. [District Rules 2201 and 4703]

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-3844-3-0 **EXPIRATION DATE:** 11/30/2016

EQUIPMENT DESCRIPTION:
440 BHP CATERPILLAR MODEL 3406 TA DIESEL-FIRED LOW USE IC ENGINE POWERING A COMPRESSOR TO START THE GAS TURBINES (C-3844-1)

PERMIT UNIT REQUIREMENTS

1. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
3. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702 and 40 CFR 60 Subpart IIII]
4. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801, 17 CCR 93115, 40 CFR Part 60 Subpart IIII]
5. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 17 CCR 93115, and 40 CFR 60 Subpart IIII]
6. Operation of this engine for all purposes shall not exceed 1 hour per day and 50 hours per year. [District Rules 2201 and 4102]
7. Emissions from this engine shall not exceed any of the following limits: 6.9 g-NOx/hp-hr, 3.03 g-CO/hp-hr or 1.12 g-VOC/hp-hr. [District Rule 2201]
8. Emissions from this engine shall not exceed 0.1 g-PM10/hp-hr based on US EPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102]
9. During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702]
10. The permittee shall maintain daily and annual records of operation. Records shall include the date, the number of hours of operation, the quantity of diesel fuel used, and the purpose of the operation (e.g., startup of turbine, testing, maintenance, etc.). Such records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070 and 4702]

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-3844-5-1 **EXPIRATION DATE:** 11/30/2016

EQUIPMENT DESCRIPTION:
DORMANT 329 BHP CAT MODEL #G379 NATURAL GAS-FIRED IC ENGINE POWERING AN ELECTRICAL GENERATOR

PERMIT UNIT REQUIREMENTS

1. No modification to this unit shall be performed without an Authority to Construct for such modification(s), except for changes specified in conditions below. [District Rule 2010]
2. The fuel supply line shall be physically disconnected from this unit. [District Rule 4702]
3. A source test to demonstrate compliance with the indicated emission limits shall be performed within 60 days of recommencing operation of this unit. [District Rule 4702]
4. Operators shall notify the District at least seven (7) calendar days prior to commencing operation of this dormant emissions unit, at which time this permit will be administratively modified to remove DEU references. [District Rule 4702]
5. This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702]
6. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
7. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
8. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements as specified on the Inspection and Monitoring (I&M) plan submitted to the District. [District Rule 4702]
9. This engine shall be operated within the ranges that the source testing has shown result in pollution concentrations within the emissions limits as specified on this permit. [District Rule 4702]
10. Combined annual emissions from units C-3844-1 and -5 shall not exceed any of the following limits: 22,816 lb-NOx/year, 7,068 lb-SOx/year, 16,368 lb-PM10/year, 89,032 lb-CO/year, and 6,448 lb-VOC/year. [District Rule 2201]
11. Emissions from this IC engine shall not exceed any of the following limits: 5 ppmvd NOx @ 15% O2 (equivalent to 0.072 g-NOx/hp-hr), 0.0104 g-SOx/hp-hr, 0.071 g-PM10/hp-hr, 670 ppmvd CO @ 15% O2 (equivalent to 5.69 g-CO/hp-hr), or 25 ppmvd VOC @ 15% O2 (equivalent to 0.125 g-VOC/hp-hr). [District Rules 2201 and 4702]
12. Upon recommencing operation, the permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rule 4702]
13. Upon recommencing operation, source testing to measure natural gas-combustion NOx, CO, and VOC emissions from this unit shall be measured not less than once every 24 months. [District Rule 4702]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

14. Emissions source testing shall be conducted with the engine operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. [District Rule 4702]

15. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. VOC emissions shall be reported as methane. VOC, NOx, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702]

16. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 18, 25A or 25B, or ARB Method 100. [District Rules 1081 and 4702]

17. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081]

18. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]

19. Upon recommencing operation, the permittee shall maintain an engine operating log to demonstrate compliance. The engine operating log shall include, on a monthly basis, the following information: total hours of operation, type and quantity (cubic feet of gas or gallons of liquid) of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702]

20. Upon recommencing operation, the permittee shall update the I&M plan for this engine prior to any planned change in operation. The permittee must notify the District no later than seven days after changing the I&M plan and must submit an updated I&M plan to the APCO for approval no later than 14 days after the change. The date and time of the change to the I&M plan shall be recorded in the engine's operating log. For modifications, the revised I&M plan shall be submitted to and approved by the APCO prior to issuance of the Permit to Operate. The permittee may request a change to the I&M plan at any time. [District Rule 4702]

21. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 4702]