



MAY 19 2011

Carol Burke  
Pacific Gas & Electric Company  
PO Box 7640  
San Francisco, CA 94120

**Re: Notice of Preliminary Decision - Title V Permit Renewal  
District Facility # N-608  
Project # N-1092120**

Dear Ms. Burke:

Enclosed for your review and comment is the District's analysis of the application to renew the Federally Mandated Operating Permit for Pacific Gas & Electric Company for its natural gas storage facility at McDonald Island in Holt, 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. Rupi Gill, Permit Services Manager, at (209) 557-6400.

Sincerely,

David Warner  
Director of Permit Services

DW: MS/st

Attachments

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

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**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

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



MAY 19 2011

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

**Re: Notice of Preliminary Decision – Title V Permit Renewal  
District Facility # N-608  
Project # N-1092120**

Dear Mr. Rios:

Enclosed for your review and comment is the District's analysis of the application to renew the Federally Mandated Operating Permit for Pacific Gas & Electric Company for its natural gas storage facility at McDonald Island in Holt, 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. Rupi Gill, Permit Services Manager, at (209) 557-6400.

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MAY 19 2011

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

**Re: Notice of Preliminary Decision - Title V Permit Renewal  
District Facility # N-608  
Project # N-1092120**

Dear Mr. Tollstrup:

Enclosed for your review and comment is the District's analysis of the application to renew the Federally Mandated Operating Permit for Pacific Gas & Electric Company for its natural gas storage facility at McDonald Island in Holt, 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. Rupi Gill, Permit Services Manager, at (209) 557-6400.

Sincerely,

David Warner  
Director of Permit Services

DW: MS/st

Attachments

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Stockton Record

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

NOTICE IS HEREBY GIVEN that the San Joaquin Valley Air Pollution Control District solicits public comment on the proposed renewal of the Federally Mandated Operating Permit to Pacific Gas & Electric Company for its natural gas storage facility at McDonald Island in Holt, California.

The District's analysis of the legal and factual basis for this proposed action, project #N-1092120, is available for public inspection at [http://www.valleyair.org/notices/public\\_notices\\_idx.htm](http://www.valleyair.org/notices/public_notices_idx.htm) and the District office at the address below. There are no emission changes associated with this proposed action. This will be the public's only opportunity to comment on the specific conditions of the proposed renewal of the Federally Mandated Operating permit. If requested by the public, the District will hold a public hearing regarding issuance of this renewed permit. For additional information, please contact Mr. Rupi Gill, Permit Services Manager, at (209) 557-6400. Written comments on the proposed renewed permit must be submitted within 30 days of the publication date of this notice to DAVID WARNER, DIRECTOR OF PERMIT SERVICES, SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT, 4800 ENTERPRISE WAY, MODESTO, CA 95356.

**San Joaquin Valley  
Air Pollution Control District**

**Proposed Title V Permit Renewal Evaluation  
Pacific Gas and Electric Company  
N-608**

**TABLE OF CONTENTS**

- I. PROPOSAL**
  - II. FACILITY LOCATION**
  - III. EQUIPMENT LISTING**
  - IV. GENERAL PERMIT TEMPLATE USAGE**
  - V. SCOPE OF EPA AND PUBLIC REVIEW**
  - VI. FEDERALLY ENFORCEABLE REQUIREMENTS**
  - VII. REQUIREMENTS NOT FEDERALLY ENFORCEABLE**
  - VIII. PERMIT REQUIREMENTS**
  - IX. PERMIT SHIELDS**
  - X. PERMIT CONDITIONS**
  - XI. ATTACHMENTS**
- 
- A. DRAFT RENEWED TITLE V OPERATING PERMIT**
  - B. PREVIOUS TITLE V OPERATING PERMIT**
  - C. DETAILED FACILITY LIST**
  - D. MAJOR HAP SOURCE DETERMINATION**

**TITLE V PERMIT RENEWAL EVALUATION  
NATURAL GAS STORAGE FACILITY**

Engineer: Mark Schonhoff  
Date: May 17, 2011

Facility Number: N-608  
Facility Name: Pacific Gas and Electric Company  
Mailing Address: PO Box 7640  
San Francisco, CA 94120  
Contact Name: Carol Burke  
Telephone: (925) 415-6308  
Responsible Official: Robert T. Howard  
Title: Vice President – Gas Transmission and Distribution  
Project Number: N-1092120  
Deemed Complete: May 7, 2009

**I. PROPOSAL**

Pacific Gas and Electric Company was issued a Title V permit on September 12, 2005. As required by District Rule 2520, the applicant is requesting a permit renewal. The existing Title V permit shall be reviewed and modified to reflect all applicable District and federal rules updated, removed, or added since the issuance of the initial Title V permit.

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

**II. FACILITY LOCATION**

McDonald Island  
Holt, CA

### **III. EQUIPMENT LISTING**

#### **N-608-1-5**

625 BHP CATERPILLAR MODEL G-398 NATURAL GAS FIRED IC ENGINE POWERING AN EMERGENCY GENERATOR (SERIAL # 73B1022) SERVING THE TURNER CUT STATION

#### **N-608-2-5**

625 BHP CATERPILLAR MODEL G-398 NATURAL GAS FIRED IC ENGINE POWERING AN EMERGENCY GENERATOR (SERIAL # 73B1012) SERVING THE TURNER CUT STATION

#### **N-608-3-5**

625 BHP CATERPILLAR MODEL G-398 NATURAL GAS FIRED IC ENGINE POWERING AN EMERGENCY GENERATOR (SERIAL # 73B1020) SERVING THE WHISKY SLOUGH STATION

#### **N-608-4-5**

625 BHP CATERPILLAR MODEL G-398 NATURAL GAS FIRED IC ENGINE POWERING AN EMERGENCY GENERATOR (SERIAL # 73B1025) SERVING THE WHISKY SLOUGH STATION

#### **N-608-7-4**

NATURAL GAS DEHYDRATION SYSTEM (TURNER CUT STATION) AND ODORIZING SYSTEM (SHARED WITH N-608-24) INCLUDING TWO CONTACTOR TOWERS AND A 3-PHASE GAS SEPARATOR SERVED BY A 6.75 MMBTU/HR THERMAL OXIDIZER (SHARED WITH N-608-24) AND A PERMIT EXEMPT < 5 MMBTU/HR REBOILER (#1).

#### **N-608-8-3**

ONE 1,000 GALLON ABOVEGROUND CONVAULT STORAGE TANK SERVED BY AN EBW COAXIAL PHASE I VAPOR RECOVERY SYSTEM (G-70-116-F) AND ONE FUELING POINT WITH ONE GASOLINE DISPENSING NOZZLE SERVED BY A BALANCE PHASE II VAPOR RECOVERY SYSTEM (G-70-116-F).

**N-608-13-5**

267 BHP CATERPILLAR MODEL 3306-DI DIESEL FIRED EMERGENCY IC ENGINE POWERING A FIRE PUMP (SERIAL # 64Z204154).

**N-608-14-5**

267 BHP CATERPILLAR MODEL 3306-DI DIESEL FIRED EMERGENCY IC ENGINE POWERING A FIRE PUMP (SERIAL # 64Z204157).

**N-608-15-2**

220 BHP NATURAL GAS FIRED RICH BURN EMERGENCY IC ENGINE POWERING AN ELECTRICAL GENERATOR

**N-608-16-3**

ONE 3,500 GALLON ABOVEGROUND METHANOL STORAGE TANK (TURNER CUT STATION)

**N-608-17-3**

ONE 3,500 GALLON ABOVEGROUND METHANOL STORAGE TANK (WHISKY SLOUGH STATION)

**N-608-18-3**

1,500 BHP WAUKESHA MODEL 9390 GL LEAN BURN NATURAL GAS FIRED IC ENGINE POWERING A NATURAL GAS COMPRESSOR (PG&E DESIGNATION K-3).

**N-608-19-3**

1,500 BHP WAUKESHA MODEL 9390 GL LEAN BURN NATURAL GAS FIRED IC ENGINE POWERING A NATURAL GAS COMPRESSOR (PG&E DESIGNATION K-4).

**N-608-20-3**

1,150 BHP WAUKESHA MODEL 7042 GL LEAN BURN NATURAL GAS FIRED IC ENGINE POWERING A NATURAL GAS COMPRESSOR (PG&E DESIGNATION K-5).



**N-608-21-3**

1,150 BHP WAUKESHA MODEL 7042 GL LEAN BURN NATURAL GAS FIRED IC ENGINE POWERING A NATURAL GAS COMPRESSOR (PG&E DESIGNATION K-6).

**N-608-24-3**

NATURAL GAS DEHYDRATION SYSTEM (TURNER CUT STATION) AND ODORIZING SYSTEM (SHARED WITH N-608-7) INCLUDING TWO CONTACTOR TOWERS AND A 3-PHASE GAS SEPARATOR SERVED BY A 6.75 MMBTU/HR THERMAL OXIDIZER (SHARED WITH N-608-7) AND A PERMIT EXEMPT < 5 MMBTU/HR REBOILER (#2)

**N-608-25-4**

NATURAL GAS DEHYDRATION SYSTEM (WHISKY SLOUGH STATION) AND ODORIZING SYSTEM (SHARED WITH N-608-26) INCLUDING TWO CONTACTOR TOWERS AND A 3-PHASE GAS SEPARATOR SERVED BY A 6.75 MMBTU/HR THERMAL OXIDIZER (SHARED WITH N-608-26) AND A PERMIT EXEMPT < 5 MMBTU/HR REBOILER (#3)

**N-608-26-4**

NATURAL GAS DEHYDRATION SYSTEM (WHISKY SLOUGH STATION) AND ODORIZING SYSTEM (SHARED WITH N-608-25) INCLUDING TWO CONTACTOR TOWERS AND A 3-PHASE GAS SEPARATOR SERVED BY A 6.75 MMBTU/HR THERMAL OXIDIZER (SHARED WITH N-608-25) AND A PERMIT EXEMPT < 5 MMBTU/HR REBOILER (#4)

**N-608-27-1**

1,680 BHP WAUKESHA MODEL L7044GSI NATURAL GAS-FIRED IC ENGINE WITH NON-SELECTIVE CATALYTIC REDUCTION (NSCR) AND AN O2 CONTROLLER POWERING A NATURAL GAS COMPRESSOR (PG&E DESIGNATION K-7)

**N-608-28-1**

1,680 BHP WAUKESHA MODEL L7044GSI NATURAL GAS-FIRED IC ENGINE WITH NON-SELECTIVE CATALYTIC REDUCTION (NSCR) AND AN O2 CONTROLLER POWERING A NATURAL GAS COMPRESSOR (PG&E DESIGNATION K-8)

**N-608-29-1**

1,680 BHP WAUKESHA MODEL L7044GSI NATURAL GAS-FIRED IC ENGINE WITH NON-SELECTIVE CATALYTIC REDUCTION (NSCR) AND AN O2 CONTROLLER POWERING A NATURAL GAS COMPRESSOR (PG&E DESIGNATION K-9)

**IV. GENERAL PERMIT TEMPLATE USAGE**

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

**A. Template SJV-UM-0-3 Facility Wide Umbrella**

The applicant has requested to utilize template Number SJV-UM-0-3, Facility Wide Umbrella. Based on the information submitted in the Template Qualification Form, the applicant qualifies for the use of this template.

**V. SCOPE OF EPA AND PUBLIC REVIEW**

Certain segments of the proposed Renewed 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 from model general permit templates and are not subject to further EPA or public review.

Conditions 2 through 41 of the requirements for permit N-608-0-2.

## **VI. FEDERALLY ENFORCEABLE REQUIREMENTS**

### **A. RULES UPDATED**

District Rule 2020, Exemptions

(amended March 21, 2002 ⇒ amended December 20, 2007)

District Rule 2201, New and Modified Stationary Source Review Rule

(amended August 20, 1998 ⇒ December 18, 2008)

District Rule 4621, Gasoline Transfer Into Stationary Storage Containers, Delivery Vessels and Bulk Plants

(amended June 18, 1998 ⇒ amended December 20, 2007)

District Rule 4622, Gasoline Transfer Into Motor Vehicle Fuel Tanks

(amended September 19, 2002 ⇒ amended December 20, 2007)

District Rule 4623, Storage of Organic Liquids

(amended December 20, 2001 ⇒ amended May 19, 2005)

District Rule 4702, Internal Combustion Engines – Phase 2

(amended August 21, 2003 ⇒ amended January 18, 2007)

40 CFR Part 64, Compliance Assurance Monitoring (CAM)

(October 22, 1997)

### **B. RULES REMOVED**

None

### **C. RULES ADDED**

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 63 Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

#### **D. RULES NOT UPDATED**

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

District Rule 1100, Equipment Breakdown (amended December 17, 1992)

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

District Rule 2031, Transfer of Permits (amended December 17, 1992)

District Rule 2040, Applications (amended December 17, 1992)

District Rule 2070, Standards for Granting Applications  
(amended December 17, 1992)

District Rule 2080, Conditional Approval (amended December 17, 1992)

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

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

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

District Rule 4408, Glycol Dehydration Systems  
(adopted December 18, 2002)

District Rule 4701, Internal Combustion Engines – Phase 1  
(amended August 21, 2003)

District Rule 4801, Sulfur Compounds (amended November 18, 1992)

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

District Rule 8021, Construction, Demolition, Excavation, Extraction and  
other Earth Moving Activities (amended August 19, 2004)

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

District Rule 8041, Carryout and Track-out (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 Subparts B and F, Stratospheric Ozone  
(last amended May 10, 2010)

40 CFR Part 61 Subpart M, National Emission Standard for Asbestos  
(last amended February 12, 2011)

## **VII. RULES NOT FEDERALLY ENFORCEABLE**

### **A. RULES UPDATED**

None

### **B. RULES REMOVED**

None

### **C. RULES ADDED**

None

### **D. RULES NOT UPDATED**

District Rule 1070, Inspections (amended December 17, 1992)

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

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

## **VIII. Permit Requirements**

In this section, the Federally enforceable requirements for the rules that were updated or added will be discussed. Clarification of equipment descriptions and the correction of typographical errors that do not change the meaning of an equipment description or condition will be made but not be discussed.

**District Rule 2020, Exemptions**  
**(amended March 21, 2002 ⇒ amended December 20, 2007)**

The changes to this rule do not affect any of the facility permits.

**District Rule 2201, New and Modified Stationary Source Review Rule**  
**(amended August 20, 1998 ⇒ December 18, 2008)**

Although this rule has changed since the initial Title V permit was issued, it does not apply to a permit unit until such time as it is modified as defined in the rule. Therefore, any new Rule 2201 requirements to which the facility may have been subject were applied at the time of the applicable permitting action.

**District Rule 2520- Federally Mandated Operating Permits**

No changes to this Rule have occurred since issuance of the TV permit; however, greenhouse gas emissions will be addressed under Rule 2520 during this renewal.

**Greenhouse Gas Discussion**

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

**District Rule 4621, Gasoline Transfer Into Stationary Storage Containers, Delivery Vessels and Bulk Plants**  
**(amended June 18, 1998 ⇒ amended December 20, 2007)**

**District Rule 4622, Gasoline Transfer Into Motor Vehicle Fuel Tanks**  
**(amended September 19, 2002 ⇒ amended December 20, 2007)**

Rules 4621 and 4622 apply to the gasoline dispensing equipment operating under permit N-608-8-2. Conditions 2 through 26 of new Title V permit (N-608-8-3) ensure compliance with the revised requirements of these rules.

Since the annual throughput limit enforces an annual VOC limit, Rule 2201 will be referenced in the throughput condition (#1) and in the record keeping condition (#25).

**District Rule 4623, Storage of Organic Liquids  
(amended December 20, 2001 ⇒ amended May 19, 2005)**

This rule applies to the methanol storage tanks operating permits N-608-16-1 and N-608-17-1. Authorities to Construct to revise the conditions to reflect the requirements of the May 19, 2005 version of this rule were issued on September 2, 2008 and were converted to Permits to Operate. Therefore, no updates are required to ensure compliance with the revised requirements of this rule.

**District Rule 4702, Internal Combustion Engines – Phase 2**  
**(amended August 21, 2003 ⇒ amended January 18, 2007)**

**Emergency Engines:**

The following engines are emergency stand-by units as defined in section 3.15 of this rule. The table below identifies the permit number and the permit changes required. Per sections 7.5.2.3 and 7.6.3.3 of Rule 4702, the units are no longer subject to Rule 4701. Therefore, the rule references to Rule 4701 will be removed from the permit conditions.

New Title V Permit #	Description	Title V Permit Condition Number		Change	Basis
		Current	New		
N-608-1-5	625 bhp natural gas fired emergency generator	11	10	Modify condition to require records of fuel type	Section 6.2.3.2
N-608-2-5	625 bhp natural gas fired emergency generator	11	10	Modify condition to require records of fuel type	Section 6.2.3.2
N-608-3-5	625 bhp natural gas fired emergency generator	11	10	Modify condition to require records of fuel type	Section 6.2.3.2
N-608-4-5	625 bhp natural gas fired emergency generator	11	10	Modify condition to require records of fuel type	Section 6.2.3.2
N-608-13-5	267 bhp diesel fired fire pump	6	7	Modify condition to require records of fuel type	Section 6.2.3.2
		N/A	4 & 5	Add operation and monitoring conditions	Sections 5.7.2 and 5.7.3 (per section 4.2)
N-608-14-5	267 bhp diesel fired fire pump	6	7	Modify condition to require records of fuel type	N/A
		N/A	4 & 5	Add operation and monitoring conditions	Sections 5.7.2 and 5.7.3 (per section 4.2)
N-608-15-2	220 bhp natural gas fired emergency generator	3	4	Add the requirement to utilize an hour meter.	Section 4.2.1
		7	7	Modify condition to require records of fuel type	Section 6.2.3.2
		N/A	5 & 6	Add operation and monitoring conditions	Sections 5.7.2 and 5.7.3 (per section 4.2)



### **Non-Emergency Engines:**

The following engines are non-emergency lean-burn natural gas fired units that are subject to section 5.1 of Rule 4702. Therefore, per section 7.5.2.3 of Rule 4702, they are not subject to Rule 4701 and the references to Rule 4701 will be removed from the permit conditions.

### **Emission Limits**

Per Section 5.1.1 of Rule 4702, the engines must not operate in a manner that the emission levels of Table 1 are exceeded. The following table shows the Table 1 limits that apply to the units currently under consideration.

Engine Type	Rule 4701, Table 1 Emission Limits (ppmvd @ 15% O <sub>2</sub> )		
	NOx	CO	VOC
Lean Burn	65	2000	750
Rich Burn	25	2000	250

### **Lean Burn Units:**

- N-608-18-2 – 1,500 bhp lean burn natural gas fired compressor engine (K-3)
- N-608-19-2 – 1,500 bhp lean burn natural gas fired compressor engine (K-4)
- N-608-20-2 – 1,150 bhp lean burn natural gas fired compressor engine (K-5)
- N-608-21-2 – 1,150 bhp lean burn natural gas fired compressor engine (K-6)

The table below includes the permit unit number, the permit limit (as well as the ppmvd @ 15% O<sub>2</sub> equivalent) and whether or not the permit requires compliance. The permit limits are in the terms of g/bhp-hr, therefore a conversion to the terms of ppmvd @ 15% O<sub>2</sub> was required to make a comparison possible. Those conversions are presented in Appendix E of this document.

New Title V Permit Number	Permit Limits – g/bhp-hr (ppmvd @ 15% O <sub>2</sub> )			
	NOx	CO	VOC	Compliant
N-608-18-3	0.9 (60.6)	3.0 (332)	0.9 (173)	Yes
N-608-19-3	0.9 (64.7)	3.0 (356)	0.9 (186)	Yes
N-608-20-3	0.9 (59.1)	3.0 (322)	0.9 (171)	Yes
N-608-21-3	0.9 (63.0)	3.0 (348)	0.9 (181)	Yes

**Rich Burn Units:**

N-608-27-1 – 1,680 bhp rich burn natural gas fired compressor engine w/ a 3-way catalyst (K-7)

N-608-28-1 – 1,680 bhp rich burn natural gas fired compressor engine w/ a 3-way catalyst (K-8)

N-608-29-1 – 1,680 bhp rich burn natural gas fired compressor engine w/ a 3-way catalyst (K-9)

The table below includes the permit unit number, the permit limit and whether or not the permit requires compliance.

New Title V Permit Number	Permit Limits (ppmvd @ 15% O <sub>2</sub> )			Compliant
	NOx	CO	VOC	
N-608-27	5	56	25	Yes
N-608-28	5	56	25	Yes
N-608-29	5	56	25	Yes

**5.6 Monitoring Requirements**

**5.6.6 non resettable elapsed operating time meter**

**5.6.9 quarterly NOx monitoring using a portable analyzer**

The permits currently require compliance with all applicable monitoring requirements and the units are all equipped with non-resettable elapsed operating time meters. Therefore no modifications to the permits are necessary for compliance with this rule (except as noted in the following table).

New Title V Permit Number	Current Title V Permit Condition Number	Action
N-608-18-3	26	Remove the condition requiring that the acceptable exhaust O <sub>2</sub> range be established because it was added to the Rule 4702 periodic monitoring requirements in error.
N-608-19-3		
N-608-20-3		
N-608-21-3		

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

Potentially Subject Units:

N-608-13-4 – 267 bhp diesel fired fire pump

N-608-14-4 – 267 bhp diesel fired fire pump

Per section 60.4200(a)(2)(ii), owners or operators of compression ignition IC engines that were manufactured on or before July 1, 2006, and are certified National Fire Protection Association (NFPA) fire pump engines are not subject to this subpart.

It is not known whether the units are certified NFPA fire pump engines. In the event that they are not, then they may be subject units per section 60.4200(a)(3). This section states that a compression ignition engine is not subject to this subpart provided it was not modified or reconstructed after July 11, 2005.

The units were manufactured prior to July 1, 2006 and were not modified or reconstructed after July 11, 2005. Therefore, they are not subject to this subpart regardless of their NFPA status.

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

New Title V Permit Number	Description	Subpart JJJJ Applicability
N-608-1-5	625 bhp natural gas fired emergency generator	Not subject units because construction, modification or reconstruction did not commence after June 12, 2006 [Sections 60.4230(a)(4) and 60.4230(a)(5)]
N-608-2-5	625 bhp natural gas fired emergency generator	
N-608-3-5	625 bhp natural gas fired emergency generator	
N-608-4-5	625 bhp natural gas fired emergency generator	
N-608-15-2	220 bhp natural gas fired emergency generator	
N-608-18-3	1,500 bhp natural gas fired compressor engine	
N-608-19-3	1,500 bhp natural gas fired compressor engine	
N-608-20-3	1,150 bhp natural gas fired compressor engine	
N-608-21-3	1,150 bhp natural gas fired compressor engine	
N-608-27-1	1,680 bhp natural gas fired rich burn compressor engine	Subject units because they were installed after June 12, 2006 and manufactured on or after July 1, 2007 [Section 60.4230(a)(4)(i)]
N-608-28-1	1,680 bhp natural gas fired rich burn compressor engine	
N-608-29-1	1,680 bhp natural gas fired rich burn compressor engine	

**Compliance Verification**

New Title V Permit Number	Requirements	Compliance Requirements
N-608-27-1	Per 60.4232(e) the units must meet the emission standards of table 1. NO <sub>x</sub> – 1.0 g/bhp-hr CO – 2.0 g/bhp-hr VOC – 0.7 g/bhp-hr	Compliance is assured by condition 8 of each new Title V operating permit.
N-608-28-1		
N-608-29-1		

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

This subpart applies to each reciprocating internal combustion engine located at a major or area source of HAP emissions. As shown in appendix D of this document, the facility is an area source of HAP emissions.

**Applicability:**

New Title V Permit Number	Description	Subpart ZZZZ Applicability
N-608-1-5	625 bhp natural gas fired emergency generator	Per section 63.6590(v)(3)(vii), these engines are not required to meet the requirements of this subpart because they are existing commercial emergency stationary units located at an area source of HAP emissions
N-608-2-5	625 bhp natural gas fired emergency generator	
N-608-3-5	625 bhp natural gas fired emergency generator	
N-608-4-5	625 bhp natural gas fired emergency generator	
N-602-13-5	267 bhp diesel fired fire pump	
N-602-14-5	267 bhp diesel fired fire pump	
N-608-15-2	220 bhp natural gas fired emergency generator	
N-608-18-3	1,500 bhp natural gas fired compressor engine	These units are subject to this subpart.
N-608-19-3	1,500 bhp natural gas fired compressor engine	
N-608-20-3	1,150 bhp natural gas fired compressor engine	
N-608-21-3	1,150 bhp natural gas fired compressor engine	
N-608-27-1	1,680 bhp natural gas fired rich burn compressor engine	
N-608-28-1	1,680 bhp natural gas fired rich burn compressor engine	
N-608-29-1	1,680 bhp natural gas fired rich burn compressor engine	

**Requirements:**

New Title V Permit Number	Requirements	Compliance Method
N-608-18-3	<p>Per section 63.6590(1)(iii), this subpart applies to each existing stationary RICE that is located at an area source of HAP emissions and commenced construction or reconstruction before 6/12/2006. These units are located at an area source of HAP emissions, commenced construction before this date and have not been reconstructed. Therefore, they are subject units. Per section 63.6603(a), such units are subject to the requirements of tables 2b and 2d of this subpart.</p> <p><b>Table 2b Requirements:</b></p> <p>Comply with any operating limitations approved by the administrator in order to comply with the CO limit</p> <p><b>Table 2d Requirements:</b></p> <p>CO limit of 23 ppmvd @ 15% O<sub>2</sub></p>	<p>Compliance is assured by condition 8 of each new Title V operating permit</p>
N-608-19-3		
N-608-20-3		
N-608-21-3		
N-608-27-1	<p>Each of these units is located at an area source of HAP emissions and commenced construction on or after 6/12/2006. Therefore, per Section 63.6590(a)(2)(iii), they are subject units. Per sections 63.6590(c) and 63.6590(c)(1) these units must comply with this subpart by complying with 40 CFR Part 60 Subpart JJJJ. Refer to the Subpart JJJJ compliance determination.</p>	<p>Compliance is assured by condition 8 of each new Title V operating permit.</p>
N-608-28-1		
N-608-29-1		

#### **40 CFR Part 64, Compliance Assurance Monitoring (CAM)**

For a unit to be subject to CAM, all of the following must be true:

1. The facility must be a Major Source
2. The unit must have an emission limit for a Major Source Pollutant that is complied with utilizing a control device
3. The uncontrolled emissions of a Major Source pollutant from the unit must be in excess of the Major Source threshold.

#### **Permit Units N-608-1, N-608-2, N-608-3 and N-608-4:**

These units do not employ after control equipment, therefore, they are not subject to CAM.

#### **Permit Units N-608-7, N-608-24, N-608-25 and N-608-26:**

The permits for the natural gas dehydration systems operating under District permits N-608-7, N-608-24, N-608-25 and N-608-26 currently include CAM requirements.

The facility is a Major Source for NO<sub>x</sub>, CO and VOC, the units are subject to VOC emission limits that are achieved utilizing control devices and the uncontrolled VOC emissions from each unit are in excess of the Major Source threshold for VOC. Therefore, per 40 CFR Part 64.2(a) each unit is subject to CAM for VOC unless it is exempt.

Per Part 64.2(b)(vi), a unit is exempt from CAM provided a continuous compliance determination method, as defined in section 64.1 is employed. The exemption does not apply if the applicable compliance method includes an assumed control device emission reduction factor that could be affected by actual operation and maintenance. Thermal oxidizers, as opposed to catalytic oxidizers, typically provide consistent control provided the combustion chamber temperature and the residence time at that temperature are sufficient. Therefore, provided the facility keeps continuous records of the combustion temperature, the units are exempt from CAM. The applicant has proposed to modify the permits as shown on the following table to gain the CAM exemption discussed above.

New Title V Permit Number	Current Title V Permit Condition Number	New Title V Permit Condition Number	Actions
N-608-7-4 N-608-24-3 N-608-25-4 N-608-26-4	4	2	Modify condition to require continuous temperature monitoring and to remove reference to 40 CFR Part 64
	21, 22,23	N/A	Remove because the units will no longer be subject to CAM

**Permit Unit N-608-8:**

This permit unit emits only VOC and is equipped with Phase I and Phase II vapor control. Therefore, it is subject to CAM unless it is exempt. Its uncontrolled VOC emissions would be as follows. The emission factor is from a CAPCOA Air Toxics Hot Spots Program document titled *Gasoline Service Station Industrywide Risk Assessment Guidelines*.

EF: 19.5 lb/10<sup>3</sup> gal  
Throughput: 24,000 gal/yr (Current PTO)

$$PE_{VOC} \text{ (Uncontrolled)} = (19.5 \text{ lb}/10^3 \text{ gal})(24,000 \text{ gal/yr}) = 468 \text{ lb/yr}$$

The potentials to emit of NO<sub>x</sub>, CO and VOC from this unit are less than their Major Source thresholds, therefore, CAM is not required.

**Permit Units N-608-13 and N-608-14:**

These units do not utilize after controls for NO<sub>x</sub>, CO or VOC, therefore, CAM is not required.



**Permit Unit N-608-15:**

This unit is equipped with a positive crankcase ventilation system for VOC, therefore, it must be determined whether CAM is required for VOC.

Maximum Fuel Usage: 1,832.7 scf/hr (application for project N-950648)  
Natural Gas Heat Content: 1,000 Btu/scf  
Annual Operating Limit: 82 hr/yr (Current PTO)  
EF<sub>VOC</sub>(Uncontrolled): 0.0296 lb/MMBtu (AP-42, table 3.2-3, 7/2000)

$$\text{VOC (Uncontrolled)} = (0.0296 \text{ lb/MMBtu})(1,000 \text{ Btu/scf})(1,832.7 \text{ scf/hr}) \\ \times (82 \text{ bhp}) = 4 \text{ lb/yr}$$

The uncontrolled potential to emit of VOC is less than the Major Source threshold, therefore, CAM is not required for this unit.

**Permit Units N-608-16 and N-608-17:**

The methanol emissions from each tank are controlled utilizing a blanketing gas and a pressure-vent valve therefore the tanks may be subject to CAM. The uncontrolled VOC emissions were calculated utilizing the calculator in District guidance document FYI-79 and are shown below.

PE<sub>VOC</sub> (N-608-16-2): 225 lb/yr  
PE<sub>VOC</sub> (N-608-16-2): 225 lb/yr

The uncontrolled potential to emit of VOC from each tank is less than the Major Source threshold, therefore, CAM is not required for these units.

**Permit Units N-608-18, N-608-19, N-608-20 and N-608-21:**

These units do not utilize after controls for any of the Major Source pollutants, therefore, CAM is not required.

**Permit Units N-608-27, N-608-28 and N-608-29:**

The facility is a Major Source for NO<sub>x</sub>, CO and VOC and each unit is subject to a NO<sub>x</sub>, CO and VOC limit that is complied with using a 3-way catalyst. Therefore, per 40 CFR Part 64.2(a), each unit is subject to CAM unless it is exempt. The uncontrolled NO<sub>x</sub>, CO and VOC emissions are as follows:

$$\begin{aligned}EF_{NO_x} \text{ (Uncontrolled)} &= 12.6 \text{ g/bhp-hr (manufacturer's data)} \\EF_{CO} \text{ (Uncontrolled)} &= 13.8 \text{ g/bhp-hr (manufacturer's data)} \\EF_{VOC} \text{ (Uncontrolled)} &= 0.36 \text{ g/bhp-hr (manufacturer's data)}\end{aligned}$$

Operating Limit: 6,600 hr/yr (Current PTO's)  
Engine Rating: 1,680 bhp

$$\begin{aligned}PE_{NO_x} \text{ (Uncontrolled)} &= (1,680 \text{ bhp})(6,600 \text{ hr/yr})(12.6 \text{ g/bhp-hr})(\text{lb}/453.6 \text{ g}) \\&= 308,000 \text{ lb/yr} \\PE_{CO} \text{ (Uncontrolled)} &= (1,680 \text{ bhp})(6,600 \text{ hr/yr})(13.8 \text{ g/bhp-hr})(\text{lb}/453.6 \text{ g}) \\&= 337,333 \text{ lb/yr} \\PE_{VOC} \text{ (Uncontrolled)} &= (1,680 \text{ bhp})(6,600 \text{ hr/yr})(0.36 \text{ g/bhp-hr})(\text{lb}/453.6 \text{ g}) \\&= 8,800 \text{ lb/yr}\end{aligned}$$

As can be seen, the uncontrolled NO<sub>x</sub> and CO emissions would be in excess of their respective Major Source thresholds of 20,000 lb/yr and 200,000 lb/yr and the uncontrolled VOC emissions would be less than the Major Source threshold of 20,000 lb/yr. Therefore, CAM may be required for NO<sub>x</sub> and CO but not for VOC.

Per Part 64.2(b)(vi), a unit is exempt from CAM provided a continuous compliance determination method, as defined in section 64.1 is employed. The exemption does not apply if the applicable compliance method includes an assumed control device emission reduction factor that could be affected by actual operation and maintenance. The catalytic oxidizers would be subject to decreased performance over time and therefore a continuous compliance determination cannot be made. Therefore, this exemption does not apply and CAM for NO<sub>x</sub> and CO is required.

The NOx and CO emissions are monitored once per month with a portable analyzer. The monitoring is conducted in accordance with District Policy SSP-1810 (Emissions Monitoring for Rules 4701 and 4702). The monitoring is accepted as CAM.

New Title V Permit Number	Current Title V Permit Condition Number	New Title V Permit Condition Number	Actions
N-608-27-1 N-608-28-1 N-608-29-1	17, 18, 19, 20 & 22	15, 16, 17, 21 & 23	Add 40 CFR Part 64 to the condition reference
	N/A	20	Add the record keeping requirements of 40 CFR Part 64.9
	N/A	18 & 19	Add the Quality Improvement Plan requirements of 40 CFR Part 64

## IX. Permit Shields

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 Permit to Operate is considered compliance with all applicable requirements upon which those conditions are based.

### A. Requirements addressed by Model General Permit Templates

#### 1. Model General Permit Template SJV-UM-03

The facility submitted a Title V General Permit Template Qualification form for the use of Facility-Wide Umbrella General Permit Template SJV-UM-0-2. Following the date of application submittal, template SJV-UM-03 was adopted. Therefore, the permit shields granted in General Permit Template SJV-UM-03 are included as conditions 40 and 41 of permit N-608-0-2.

### B. Requirements Not Addressed by Model General Permit Templates

1. Permit units N-608-13 and N-608-14 include permit shields from San Joaquin County Rule 407. That permit shield will remain.

## X. Permit Conditions

See Appendix A – Draft Renewed Title V Operating Permit.

## **XI. Appendices**

- Appendix A: Draft Renewed Title V Operating Permit
- Appendix B: Previous Title V Operating Permit
- Appendix C: Detailed Facility List
- Appendix D: Major HAP Source Determination
- Appendix E: Emission Factor Conversions

**Appendix A**  
**Draft Renewed Title V Operating Permit**

**Appendix B**  
**Previous Title V Operating Permit**

**Appendix C**  
**Detailed Facility List**

**Appendix D**  
**Major HAP Source Determination**



**Major Air Toxics Source Determination:**

To determine whether the facility is a Major Air Toxics Source, the facility-wide hazardous air pollutant (HAP) emissions will be compared to the Major Air Toxics Source thresholds. Those thresholds are 10 tons/yr of any single HAP or combined HAP emissions of 25 tons/yr. To determine the facility-wide potential to emit of HAPS, the facility-wide natural gas and diesel usage limits will be applied to the appropriate emission factor. The emission factors are from the California Air Toxics Emission Factors (CATEF) database.

**Natural Gas fired IC Engines (>650 bhp):**

New Title V Permit Number	Maximum Fuel Usage (MMScf/yr)
N-608-18-3	65.9835
N-608-19-3	65.9835
N-608-20-3	51.3084
N-608-21-3	51.3084
N-608-27-1	95.6208
N-608-28-1	95.6208
N-608-29-1	95.6208
Total	521.4462

The hourly fuel usages are from various application materials, and the annual quantities were arrived at utilizing the appropriate operating hour limits.

Toxic Emissions (natural Gas fired IC Engines > 650 bhp)		
Compound	Emission Factor (lb/MMscf)	Potential to Emit (lb/yr)
Acenaphthene	0.000217	0.113
Acenaphthylene	0.000735	0.383
Acetaldehyde	2.62	1,366
Acrolein	0.161	84.0
Anthracene	0.000171	0.0892
Benzene	0.259	135.1
Benzo(a)anthracene	0.0000992	0.0517
Benzo(a)pyrene	0.000003880	0.00202
Benzo(b)fluoranthene	0.0000798	0.0416
Benzo(g,h,i)perylene	0.0000171	0.00892
Benzo(k) fluoranthene	0.0000121	0.00631
1,3 Butadiene	0.415	216.4
Chrysene	0.0000225	0.0117
Dibenz(a,h)anthracene	0.00000388	0.00202
Ethylbenzene	0.115	60.0
Fluoranthene	0.000475	0.248
Fluorene	0.000798	0.416
Formaldehyde	20.9	10,898.2
Indeno(1,2,3cd)pyrene	0.0000109	0.00568
Napthalene	0.0310	16.2
Phenanthrene	0.00275	1.43
Propylene	12.1	6,309
Pyrene	0.000326	0.170
Toluene	0.394	205.4
Xylene (total)	0.965	503.2
Total	---	19,796

**Natural Gas fired IC Engines (<650 bhp):**

New Title V Permit Number	Maximum Fuel Usage (MMScf/yr)
N-608-1-5	0.5016
N-608-2-5	0.5016
N-608-3-5	0.5016
N-608-4-5	0.5016
N-608-15-2	0.1502
Total	2.1566

The hourly fuel usages are from various application materials, and the annual quantities were arrived at utilizing the appropriate operating hour limits.

Toxic Emissions (natural Gas fired IC Engines < 650 bhp)		
Compound	Emission Factor (lb/MMscf)	Potential to Emit (lb/yr)
Acenaphthene	0.00393	0.00848
Acenaphthylene	0.0162	0.0349
Acetaldehyde	1.82	3.93
Acrolein	1.37	2.95
Anthracene	0.00226	0.00487
Benzene	10.2	22.0
Benzo(a)anthracene	0.000339	0.000731
Benzo(a)pyrene	0.000151	0.000326
Benzo(b)fluoranthene	0.000301	0.000649
Formaldehyde	0.14	0.30
Benzo(k) fluoranthene	0.000117	0.000252
Chrysene	0.000395	0.000851
Dibenz(a,h)anthracene	0.0000145	0.0000313
Ethylbenzene	0.0144	0.0311
Fluoranthene	11.4	24.6
Fluorene	0.00904	0.0195
Indeno(1,2,3cd)pyrene	0.000207	0.000446
Napthalene	0.0866	0.187
Phenanthrene	0.00885	0.0191
Propylene	42.0	90.6
Pyrene	0.00264	0.00569
Toluene	2.62	5.65
Xylene (total)	0.0738	0.159
Benzo(g,h,i)perylene	0.000245	0.000528
1,3 Butadiene	0.105	0.226
Total	---	151

**Natural Gas Dehydration Units:**

New Title V Permit Number	Maximum Fuel Usage (MMBtu/yr)	Maximum Fuel Usage (MMScf/yr)
N-608-7-4	59,130	59.13
N-608-24-3		
N-608-25-4	59,130	59.13
N-608-26-4		
Total		118.26

The conversion from MMBtu/yr to MMscf/yr was made assuming a natural gas heat content of 1,000 Btu/scf.

Toxic Emissions (natural Gas fired IC Engines)		
Compound	Emission Factor (lb/MMscf)	Potential to Emit (lb/yr)
Benzene	0.283	33.5
Ethylbenzene	0.00915	1.08
Formaldehyde	0.0000490	0.00579
Hydrogen Sulfide	0.115	13.6
Toluene	0.192	22.7
Xylene (m)	0.0231	2.73
Xylene (o)	0.00858	1.01
Xylene (p)	0.00781	0.924
Total	---	76

**Gasoline Dispensing Operation (N-608-8-2):**

Gasoline vapors are listed on the CARB list of AB-2588 pollutants.

PE<sub>Gasoline</sub> = 1,135 lb/yr (EE for Project N-1060086)

**Methanol Storage Tanks (N-608-16-2 and N-608-17-2):**

As explained in the Application Review document for project N-1071202, the emissions will consist solely of natural gas, which is the blanketing gas. Natural gas does include some constituents that are VOC. The VOC emission quantities were determined during the processing of the applications for the above mentioned project to be 1 pound per year per tank.

As shown in the CARB VOC speciation manual (Code 520), natural gas includes the following fraction of these constituents:

Ethane	0.0510
Isobutane	0.0010
Methane	0.9370
N-Butane	0.0010
Propane	0.01

An examination of the Clean Air Act Amendments of 1990 List of Hazardous Air Pollutants showed that none of these items is a hazardous air pollutant. Therefore, no hazardous air pollutant emissions are expected.

**Diesel Fired IC Engines:**

New Title V Permit Number	Maximum Fuel Usage (gallons per year)
N-608-13-5	1,450
N-608-14-5	1,450
Total	2,900 (2.900 x 10 <sup>3</sup> )

The hourly fuel usages are from various application material, and the annual quantities were arrived at utilizing the appropriate operating hour limits.

Toxic Emissions (Emergency Diesel Fired IC Engines)		
Compound	Emission Factor (lb/10 <sup>3</sup> gal)	Potential to Emit (lb/yr)
Acenaphthene	0.000867	0.00251
Acenaphthylene	0.00132	0.00383
Acetaldehyde	0.00646	0.0187
Acrolein	0.00179	0.00519
Anthracene	0.000289	0.000838
Benzene	0.104	0.302
Benzo(a)anthracene	0.0000969	0.000281
Benzo(a)pyrene	0.0000477	0.000138
Dibenz(a,h)anthracene	0.000280	0.000812
ethylbenzene	0.00803	0.0233
fluoranthene	0.000330	0.000957
fluorene	0.00124	0.00360
formaldehyde	0.176	0.510
Hexane	0.00147	0.00426
Indeno(1,2,3-cd)pyrene	0.000280	0.000812
Napthalene	0.0319	0.0925
phenanthrene	0.00648	0.0188
propylene	0.345	1.00
pyrene	0.000280	0.000812
toluene	0.111	0.322
Xylene (total)	0.0206	0.0597
Total	---	2

### Summary of HAP Emissions (Annual Total Individual)

Compound	IC Engines (lb/yr)			Dehydration	Storage and/or Dispensing/Loadout (lb/yr)		Total
	Natural gas fired > 650 bhp	Natural gas fired < 650 bhp	Diesel (all)	Dehydrators (lb/yr)	Methanol	Gasoline	
Acenaphthene	0.113	0.00848	0.00251	----	----	----	0.124
Acenaphthylene	0.383	0.0349	0.00383	----	----	----	0.418
Acataldehyde	1,366	3.93	0.0187	----	----	----	1,370
Acrolein	84.0	2.95	0.00519	----	----	----	90.0
Anthracene	0.0892	0.00487	0.000838	----	----	----	0.0949
Benzene	135.1	22.0	0.302	33.5	----	----	191
Benzo(a)anthracene	0.0517	0.000731	0.000281	----	----	----	0.0527
Benzo(a)pyrene	0.00202	0.000326	0.000138	----	----	----	0.00248
Benzo(b)fluoranthene	0.0416	0.000649	----	----	----	----	0.0422
Benzo(g,h,i)perylene	0.00892	0.000528	----	----	----	----	0.00945
Benzo(k) fluoranthene	0.00631	0.000252	----	----	----	----	0.00656
1,3 Butadiene	216.4	0.226	----	----	----	----	217
Chrysene	0.0117	0.000851	----	----	----	----	0.0126
Dibenz(a,h)anthracene	0.00202	0.0000313	0.000812	----	----	----	0.0210
Ethylbenzene	60.0	0.0311	0.0233	1.08	----	----	61.1
Fluoranthene	0.248	24.6	0.000957	----	----	----	24.8
Fluorene	0.416	0.0195	0.00360	----	----	----	0.439
Formaldehyde	10,898.2	0.30	0.510	0.00579	----	----	10,899
Gasoline Vapor	----	----	----	----	----	1,135	1,135
Hexane	----	----	0.00426	----	----	----	0.00426
Hydrogen Sulfide	----	----	----	13.6	----	----	13.6
Indeno(1,2,3cd)pyrene	0.00568	0.000446	0.000812	----	----	----	0.00993
Methanol Vapor	----	----	----	----	0	----	0
Napthalene	16.2	0.187	0.0925	----	----	----	16.5
Phenanthrene	1.43	0.0191	0.0188	----	----	----	1.47
Propylene	6,309	90.6	1.00	----	----	----	6,401
Pyrene	0.170	0.00569	0.000812	----	----	----	0.177
Toluene	205.4	5.65	0.322	22.7	----	----	234
Xylene (total)	503.2	0.159	0.0597	4.66	----	----	508
<b>Total</b>							<b>21,163</b>

As can be seen, the combined potential HAP emissions from the permitted equipment at the facility are less than 25 tons per year and the potential to emit of each single HAP is less than 10 tons per year. Therefore, the facility is not a major source of HAP emissions.

## **Appendix E**

### **Emission Factor Conversions**



The calculations below utilize the most recent source test data to show the ppmvd @ 15% O<sub>2</sub> equivalent of the g/bhp-hr emission permit limits. The source test was conducted by Avagadro Group on October 12 and 13 of 2010.

**N-608-18:**

Emission Limits:

NOx: 0.9 g/bhp-hr  
CO: 3.0 g/bhp-hr  
VOC: 0.9 g/bhp-hr

Engine Output During Source Test:

1,240 bhp

Emissions During Source Test:

NOx: 79.8 ppmvd @ 10.8% O<sub>2</sub> (1.90 lb/hr)  
CO: 534.0 ppmvd @ 10.8% O<sub>2</sub> (7.73 lb/hr)  
VOC: 68.6 ppmvd @ 10.8% O<sub>2</sub> (0.57 lb/hr)

Emissions During Source Test (corrected to 15% O<sub>2</sub>):

NOx:  $79.8[(20.95 - 15)/(20.95 - 10.8)] = 46.8$  ppmvd @ 15% O<sub>2</sub>  
CO:  $534.0[(20.95 - 15)/(20.95 - 10.8)] = 313.0$  ppmvd @ 15% O<sub>2</sub>  
VOC:  $68.6[(20.95 - 15)/(20.95 - 10.8)] = 40.2$  ppmvd @ 15% O<sub>2</sub>

Emission Factor for Emissions During Source Test (correct number of significant figures):

NOx:  $(1.90 \text{ lb/hr})(453.6 \text{ g/lb}) / 1,240 \text{ bhp} = 0.695$  g/bhp-hr  
CO:  $(7.73 \text{ lb/hr})(453.6 \text{ g/lb}) / 1,240 \text{ bhp} = 2.83$  g/bhp-hr  
VOC:  $(0.57 \text{ lb/hr})(453.6 \text{ g/lb}) / 1,240 \text{ bhp} = 0.209$  g/bhp-hr

Equivalent Emission Factors (by ratioing)

$0.9 \text{ g/bhp-hr} = (46.8 \text{ ppmvd @ 15\% O}_2)(0.9 / 0.695)$   
 $= 60.6 \text{ ppmvd \% 15\% O}_2$

$3.0 \text{ g/bhp-hr} = (313.0 \text{ ppmvd @ 15\% O}_2)(3.0 / 2.83)$   
 $= 332 \text{ ppmvd \% 15\% O}_2$

$0.9 \text{ g/bhp-hr} = (40.2 \text{ ppmvd @ 15\% O}_2)(0.9 / 0.209)$   
 $= 173 \text{ ppmvd \% 15\% O}_2$

**N-608-19:**

Emission Limits:

NOx: 0.9 g/bhp-hr  
CO: 3.0 g/bhp-hr  
VOC: 0.9 g/bhp-hr

Engine Output During Source Test:

1,327 bhp

Emissions During Source Test:

NOx: 76.8 ppmvd @ 10.8% O<sub>2</sub> (1.83 lb/hr)  
CO: 520.8 ppmvd @ 10.8% O<sub>2</sub> (7.53 lb/hr)  
VOC: 80.8 ppmvd @ 10.8% O<sub>2</sub> (0.67 lb/hr)

Emissions During Source Test (corrected to 15% O<sub>2</sub>):

NOx:  $76.8[(20.95 - 15)/(20.95 - 10.8)] = 45.0 \text{ ppmvd @ } 15\% \text{ O}_2$   
CO:  $520.8[(20.95 - 15)/(20.95 - 10.8)] = 305 \text{ ppmvd @ } 15\% \text{ O}_2$   
VOC:  $80.8[(20.95 - 15)/(20.95 - 10.8)] = 47.4 \text{ ppmvd @ } 15\% \text{ O}_2$

Emission Factor for Emissions During Source Test (correct number of significant figures):

NOx:  $(1.83 \text{ lb/hr})(453.6 \text{ g/lb}) / 1,327 \text{ bhp} = 0.626 \text{ g/bhp-hr}$   
CO:  $(7.53 \text{ lb/hr})(453.6 \text{ g/lb}) / 1,327 \text{ bhp} = 2.57 \text{ g/bhp-hr}$   
VOC:  $(0.67 \text{ lb/hr})(453.6 \text{ g/lb}) / 1,327 \text{ bhp} = 0.229 \text{ g/bhp-hr}$

Equivalent Emission Factors (by ratioing)

$0.9 \text{ g NOx/bhp-hr} = (45.0 \text{ ppmvd @ } 15\% \text{ O}_2)(0.9 / 0.626)$   
 $= 64.7 \text{ ppmvd \% } 15\% \text{ O}_2$

$3.0 \text{ g CO/bhp-hr} = (305 \text{ ppmvd @ } 15\% \text{ O}_2)(3.0 / 2.57)$   
 $= 356 \text{ ppmvd \% } 15\% \text{ O}_2$

$0.9 \text{ g VOC/bhp-hr} = (47.4 \text{ ppmvd @ } 15\% \text{ O}_2)(0.9 / 0.229)$   
 $= 186 \text{ ppmvd \% } 15\% \text{ O}_2$

**N-608-20:**

Emission Limits:

NOx: 0.9 g/bhp-hr  
CO: 3.0 g/bhp-hr  
VOC: 0.9 g/bhp-hr

Engine Output During Source Test:

1,035 bhp

Emissions During Source Test:

NOx: 64.3 ppmvd @ 9.6% O<sub>2</sub> (1.17 lb/hr)  
CO: 422.0 ppmvd @ 9.6% O<sub>2</sub> (4.69 lb/hr)  
VOC: 66.5 ppmvd @ 9.6% O<sub>2</sub> (0.42 lb/hr)

Emissions During Source Test (corrected to 15% O<sub>2</sub>):

NOx:  $64.3[(20.95 - 15)/(20.95 - 9.6)] = 33.7$  ppmvd @ 15% O<sub>2</sub>  
CO:  $422.0[(20.95 - 15)/(20.95 - 9.6)] = 221.2$  ppmvd @ 15% O<sub>2</sub>  
VOC:  $66.5[(20.95 - 15)/(20.95 - 9.6)] = 34.9$  ppmvd @ 15% O<sub>2</sub>

Emission Factor for Emissions During Source Test (correct number of significant figures):

NOx:  $(1.17 \text{ lb/hr})(453.6 \text{ g/lb}) / 1,035 \text{ bhp} = 0.513$  g/bhp-hr  
CO:  $(4.69 \text{ lb/hr})(453.6 \text{ g/lb}) / 1,035 \text{ bhp} = 2.06$  g/bhp-hr  
VOC:  $(0.42 \text{ lb/hr})(453.6 \text{ g/lb}) / 1,035 \text{ bhp} = 0.184$  g/bhp-hr

Equivalent Emission Factors (by ratioing)

$0.9 \text{ g NOx/bhp-hr} = (33.7 \text{ ppmvd @ 15\% O}_2)(0.9 / 0.513)$   
 $= 59.1 \text{ ppmvd \% 15\% O}_2$

$3.0 \text{ g CO/bhp-hr} = (221.2 \text{ ppmvd @ 15\% O}_2)(3.0 / 2.06)$   
 $= 322 \text{ ppmvd \% 15\% O}_2$

$0.9 \text{ g VOC/bhp-hr} = (34.9 \text{ ppmvd @ 15\% O}_2)(0.9 / 0.184)$   
 $= 171 \text{ ppmvd \% 15\% O}_2$

**N-608-21:**

Emission Limits:

NOx: 0.9 g/bhp-hr  
CO: 3.0 g/bhp-hr  
VOC: 0.9 g/bhp-hr

Engine Output During Source Test:

1,085 bhp

Emissions During Source Test:

NOx: 68.5 ppmvd @ 10.7% O<sub>2</sub> (1.36 lb/hr)  
CO: 487.5 ppmvd @ 10.7% O<sub>2</sub> (5.84 lb/hr)  
VOC: 82.6 ppmvd @ 10.7% O<sub>2</sub> (0.57 lb/hr)

Emissions During Source Test (corrected to 15% O<sub>2</sub>):

NOx:  $68.5[(20.95 - 15)/(20.95 - 10.7)] = 39.8 \text{ ppmvd @ } 15\% \text{ O}_2$   
CO:  $487.5[(20.95 - 15)/(20.95 - 10.7)] = 283 \text{ ppmvd @ } 15\% \text{ O}_2$   
VOC:  $82.6[(20.95 - 15)/(20.95 - 10.7)] = 47.9 \text{ ppmvd @ } 15\% \text{ O}_2$

Emission Factor for Emissions During Source Test (correct number of significant figures):

NOx:  $(1.36 \text{ lb/hr})(453.6 \text{ g/lb}) / 1,085 \text{ bhp} = 0.569 \text{ g/bhp-hr}$   
CO:  $(5.84 \text{ lb/hr})(453.6 \text{ g/lb}) / 1,085 \text{ bhp} = 2.44 \text{ g/bhp-hr}$   
VOC:  $(0.57 \text{ lb/hr})(453.6 \text{ g/lb}) / 1,085 \text{ bhp} = 0.238 \text{ g/bhp-hr}$

Equivalent Emission Factors (by ratioing)

$0.9 \text{ g NOx/bhp-hr} = (39.8 \text{ ppmvd @ } 15\% \text{ O}_2)(0.9 / 0.569)$   
 $= 63.0 \text{ ppmvd @ } 15\% \text{ O}_2$

$3.0 \text{ g CO/bhp-hr} = (283 \text{ ppmvd @ } 15\% \text{ O}_2)(3.0 / 2.44)$   
 $= 348 \text{ ppmvd @ } 15\% \text{ O}_2$

$0.9 \text{ g VOC /bhp-hr} = (47.9 \text{ ppmvd @ } 15\% \text{ O}_2)(0.9 / 0.238)$   
 $= 181 \text{ ppmvd @ } 15\% \text{ O}_2$

**Appendix A**  
**Draft Renewed Title V Operating Permit**

# San Joaquin Valley Air Pollution Control District

FACILITY: N-608-0-2

EXPIRATION DATE: 10/31/2009

## FACILITY-WIDE REQUIREMENTS

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

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: PACIFIC GAS & ELECTRIC CO.

Location: MCDONALD ISLAND COMPRESSOR STATION, HOLT, CA 95234

N-608-0-2 : May 17 2011 2:20PM - BCHONHOM

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

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

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

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



35. {4395} Any unpaved vehicle/equipment area that anticipates more than 50 Average annual daily Trips (AADT) shall comply with the requirements of Section 5.1.1 of District Rule 8071. Any unpaved vehicle/equipment area that anticipates more than 150 vehicle trips per day (VDT) shall comply with the requirements of Section 5.1.2 of District Rule 8071. On each day that 25 or more VDT with 3 or more axles will occur on an unpaved vehicle/equipment traffic area, the owner/operator shall comply with the requirements of Section 5.1.3 of District Rule 8071. On each day when a special event will result in 1,000 or more vehicles that will travel/park on an unpaved area, the owner/operator shall comply with the requirements of Section 5.1.4 of District Rule 8071. All sources shall comply with the requirements of Section 5.0 of District Rule 8071 unless specifically exempted under Section 4.0 of Rule 8071 (9/16/2004) or Rule 8011 (8/19/2004). [District Rule 8071 and Rule 8011] Federally Enforceable Through Title V Permit
36. {4396} Any owner or operator of a demolition or renovation activity, as defined in 40 CFR 61.141, shall comply with the applicable inspection, notification, removal, and disposal procedures for asbestos containing materials as specified in 40 CFR 61.145 (Standard for Demolition and Renovation). [40 CFR 61 Subpart M] Federally Enforceable Through Title V Permit
37. {4397} The permittee shall submit certifications of compliance with the terms and standards contained in Title V permits, including emission limits, standards and work practices, to the District and the EPA annually (or more frequently as specified in an applicable requirement or as specified by the District). The certification shall include the identification of each permit term or condition, the compliance status, whether compliance was continuous or intermittent, the methods used for determining the compliance status, and any other facts required by the District to determine the compliance status of the source. [District Rule 2520, 9.16] Federally Enforceable Through Title V Permit
38. {4398} The permittee shall submit an application for Title V permit renewal to the District at least six months, but not greater than 18 months, prior to the permit expiration date. [District Rule 2520, 5.2] Federally Enforceable Through Title V Permit
39. {4399} When a term is not defined in a Title V permit condition, the definition in the rule cited as the origin and authority for the condition in a Title V permits shall apply. [District Rule 2520, 9.1.1] Federally Enforceable Through Title V Permit
40. {4400} Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following outdated SIP requirements: Rule 401 (Madera, Fresno, Kern, Kings, San Joaquin, Stanislaus, Tulare and Merced), Rule 110 (Fresno, Stanislaus, San Joaquin), Rule 109 (Merced), Rule 113 (Madera), Rule 111 (Kern, Tulare, Kings), and Rule 202 (Fresno, Kern, Tulare, Kings, Madera, Stanislaus, Merced, San Joaquin). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
41. {4401} Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rules 1100, sections 6.1 and 7.0 (12/17/92); 2010, sections 3.0 and 4.0 (12/17/92); 2031 (12/17/92); 2040 (12/17/92); 2070, section 7.0 (12/17/92); 2080 (12/17/92); 4101 (2/17/05); 4601 (12/17/09); 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
42. On September 30, 2005, the initial Title V permit was issued. The reporting periods for the Report of Required Monitoring and the Compliance Certification Report are based upon this initial permit issuance date, unless alternative dates are approved by the District Compliance Division. These reports are due within 30 days after the end of the reporting period. [District Rule 2520] Federally Enforceable Through Title V Permit

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

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** N-608-1-5

**EXPIRATION DATE:** 10/31/2009

**EQUIPMENT DESCRIPTION:**

625 BHP CATERPILLAR MODEL G-398 NATURAL GAS FIRED IC ENGINE POWERING AN EMERGENCY GENERATOR (SERIAL # 73B1022) SERVING THE TURNER CUT STATION

## PERMIT UNIT REQUIREMENTS

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1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.0] Federally Enforceable Through Title V Permit
2. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Stanislaus County Rule 407] Federally Enforceable Through Title V Permit
3. The engine shall be fired solely on natural gas. [District NSR Rule] Federally Enforceable Through Title V Permit
4. The engine shall be operated only for maintenance, testing, and required regulatory purposes, and during emergency situations. Operation of the engine for maintenance and testing purposes shall not exceed 100 hours per year, as determined by an operational nonresettable elapsed operating time meter. [District NSR Rule and District Rule 4702, 3.15 & 4.2.1] Federally Enforceable Through Title V Permit
5. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements or emission control system supplier. [District Rule 4702] Federally Enforceable Through Title V Permit
6. The permittee shall monitor the operational characteristics of the engine as recommended by the engine manufacturer or emission control system supplier. [District Rule 4702] Federally Enforceable Through Title V Permit
7. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
8. If the engine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM method D 1072, D 3031, D 4084 or D 3246. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
9. If the engine is fired on natural gas but not PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. The permittee shall maintain records of the hours of emergency and non-emergency operation and of the type of fuel used. Operation records shall include the date, the number of hours of operation, and the purpose of the operation (e.g., load testing, weekly testing, rolling blackout, general area power outage, etc.). Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rules 1070, 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** N-608-2-5

**EXPIRATION DATE:** 10/31/2009

**EQUIPMENT DESCRIPTION:**

625 BHP CATERPILLAR MODEL G-398 NATURAL GAS FIRED IC ENGINE POWERING AN EMERGENCY GENERATOR (SERIAL # 73B1012) SERVING THE TURNER CUT STATION

## PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.0] Federally Enforceable Through Title V Permit
2. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Stanislaus County Rule 407] Federally Enforceable Through Title V Permit
3. The engine shall be fired solely on natural gas. [District NSR Rule] Federally Enforceable Through Title V Permit
4. The engine shall be operated only for maintenance, testing, and required regulatory purposes, and during emergency situations. Operation of the engine for maintenance and testing purposes shall not exceed 100 hours per year, as determined by an operational nonresettable elapsed operating time meter. [District NSR Rule and District Rule 4702, 3.15 & 4.2.1] Federally Enforceable Through Title V Permit
5. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements or emission control system supplier. [District Rule 4702] Federally Enforceable Through Title V Permit
6. The permittee shall monitor the operational characteristics of the engine as recommended by the engine manufacturer or emission control system supplier. [District Rule 4702] Federally Enforceable Through Title V Permit
7. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
8. If the engine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM method D 1072, D 3031, D 4084 or D 3246. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
9. If the engine is fired on natural gas but not PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. The permittee shall maintain records of the hours of emergency and non-emergency operation and of the type of fuel used. Operation records shall include the date, the number of hours of operation, and the purpose of the operation (e.g., load testing, weekly testing, rolling blackout, general area power outage, etc.). Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rules 1070, 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** N-608-3-5

**EXPIRATION DATE:** 10/31/2009

**EQUIPMENT DESCRIPTION:**

625 BHP CATERPILLAR MODEL G-398 NATURAL GAS FIRED IC ENGINE POWERING AN EMERGENCY GENERATOR (SERIAL # 73B1020) SERVING THE WHISKY SLOUGH STATION

## PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.0] Federally Enforceable Through Title V Permit
2. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Stanislaus County Rule 407] Federally Enforceable Through Title V Permit
3. The engine shall be fired solely on natural gas. [District NSR Rule] Federally Enforceable Through Title V Permit
4. The engine shall be operated only for maintenance, testing, and required regulatory purposes, and during emergency situations. Operation of the engine for maintenance and testing purposes shall not exceed 100 hours per year, as determined by an operational nonresettable elapsed operating time meter. [District NSR Rule and District Rule 4702, 3.15 & 4.2.1] Federally Enforceable Through Title V Permit
5. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements or emission control system supplier. [District Rule 4702] Federally Enforceable Through Title V Permit
6. The permittee shall monitor the operational characteristics of the engine as recommended by the engine manufacturer or emission control system supplier. [District Rule 4702] Federally Enforceable Through Title V Permit
7. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
8. If the engine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM method D 1072, D 3031, D 4084 or D 3246. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
9. If the engine is fired on natural gas but not PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. The permittee shall maintain records of the hours of emergency and non-emergency operation and of the type of fuel used. Operation records shall include the date, the number of hours of operation, and the purpose of the operation (e.g., load testing, weekly testing, rolling blackout, general area power outage, etc.). Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rules 1070, 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** N-608-4-5

**EXPIRATION DATE:** 10/31/2009

**EQUIPMENT DESCRIPTION:**

625 BHP CATERPILLAR MODEL G-398 NATURAL GAS FIRED IC ENGINE POWERING AN EMERGENCY GENERATOR (SERIAL # 73B1025) SERVING THE WHISKY SLOUGH STATION

## PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.0] Federally Enforceable Through Title V Permit
2. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Stanislaus County Rule 407] Federally Enforceable Through Title V Permit
3. The engine shall be fired solely on natural gas. [District NSR Rule] Federally Enforceable Through Title V Permit
4. The engine shall be operated only for maintenance, testing, and required regulatory purposes, and during emergency situations. Operation of the engine for maintenance and testing purposes shall not exceed 100 hours per year, as determined by an operational nonresettable elapsed operating time meter. [District NSR Rule and District Rule 4702, 3.15 & 4.2.1] Federally Enforceable Through Title V Permit
5. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements or emission control system supplier. [District Rule 4702] Federally Enforceable Through Title V Permit
6. The permittee shall monitor the operational characteristics of the engine as recommended by the engine manufacturer or emission control system supplier. [District Rule 4702] Federally Enforceable Through Title V Permit
7. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
8. If the engine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM method D 1072, D 3031, D 4084 or D 3246. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
9. If the engine is fired on natural gas but not PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. The permittee shall maintain records of the hours of emergency and non-emergency operation and of the type of fuel used. Operation records shall include the date, the number of hours of operation, and the purpose of the operation (e.g., load testing, weekly testing, rolling blackout, general area power outage, etc.). Such records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rules 1070, 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

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

Facility Name: PACIFIC GAS & ELECTRIC CO.

Location: MCDONALD ISLAND COMPRESSOR STATION, HOLT, CA 95234

N-608-4-5 : May 17 2011 2:20PM - BCHOHOM

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** N-608-7-4

**EXPIRATION DATE:** 10/31/2009

**EQUIPMENT DESCRIPTION:**

NATURAL GAS DEHYDRATION SYSTEM (TURNER CUT STATION) AND ODORIZING SYSTEM (SHARED WITH N-608-24) INCLUDING TWO CONTACTOR TOWERS AND A 3-PHASE GAS SEPARATOR SERVED BY A 6.75 MMBTU/HR THERMAL OXIDIZER (SHARED WITH N-608-24) AND A PERMIT EXEMPT < 5 MMBTU/HR REBOILER (#1).

## PERMIT UNIT REQUIREMENTS

1. The thermal oxidizer shall be fired solely on PUC quality natural gas. [District NSR Rule] Federally Enforceable Through Title V Permit
2. The thermal oxidizer shall be equipped with an operational temperature indicator at the combustion chamber. The temperature shall be monitored and recorded continuously. [District NSR Rule] Federally Enforceable Through Title V Permit
3. The thermal oxidizer shall be heated to at least 1400 degrees Fahrenheit prior to any contaminated air steam entering the oxidizer, and shall operate at a minimum temperature of 1400 degrees Fahrenheit. [District NSR Rule] Federally Enforceable Through Title V Permit
4. The thermal oxidizer shall operate at all times when dehydration is taking place. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Only glycol shall be used as the dehydration medium. [District NSR Rule] Federally Enforceable Through Title V Permit
6. The VOC control efficiency of the thermal oxidizer shall not be less than 97.5%. [District NSR Rule and District Rule 4408, 5.1.3] Federally Enforceable Through Title V Permit
7. NOx emissions from natural gas combustion in the thermal oxidizer shall not exceed 0.1 lb/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
8. CO emissions from natural gas combustion in the thermal oxidizer shall not exceed 0.084 lb/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
9. PM10 emissions from natural gas combustion in the thermal oxidizer shall not exceed 0.0076 lb/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
10. SOx emissions from natural gas combustion in the thermal oxidizer shall not exceed 0.00285 lb/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
11. The combined VOC emissions from dehydration units N-608-7 and N-608-24, including the combustion contaminants from the thermal oxidizer, shall not exceed 1.95 lb/hr. [District NSR Rule] Federally Enforceable Through Title V Permit
12. Source testing to determine the thermal oxidizer VOC control efficiency and the combined VOC emissions from units N-608-7 and -24 shall be conducted annually. [District Rules 1081, 7.2 and 4408, 5.1.3.2] Federally Enforceable Through Title V Permit
13. 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, 7.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

14. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.3] Federally Enforceable Through Title V Permit
15. VOC emissions shall be measured by EPA Method 25, 25A, 25B, or 18. [District Rules 1081, 5.0 and 4408, 6.2.2.4] Federally Enforceable Through Title V Permit
16. Permittee shall maintain monthly records of the amount of gas dehydrated by dehydration units N-608-7 and -24. [District NSR Rule and District Rule 4408, 6.1.1] Federally Enforceable Through Title V Permit
17. Permittee shall maintain the following records: APCD permit number; location, size of glycol dehydrator reboiler (MMBTU/hr), and type of glycol used; description of any installed VOC control system; flow diagram of the dehydrator and any VOC controls; maintenance records of the VOC control system; reports of source tests; all records necessary to document inputs to and outputs of the GRI-GLYCalc software, if used. [District NSR Rule and District Rule 4408, 6.1.2] Federally Enforceable Through Title V Permit
18. All records shall be retained for a minimum of 5 years, and shall be made available for District inspection upon request. [District Rule 4408, 6.1.4] Federally Enforceable Through Title V Permit

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

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: N-608-8-3

EXPIRATION DATE: 10/31/2009

## EQUIPMENT DESCRIPTION:

ONE 1,000 GALLON ABOVEGROUND CONVAULT STORAGE TANK SERVED BY AN EBW COAXIAL PHASE I VAPOR RECOVERY SYSTEM (G-70-116-F) AND ONE FUELING POINT WITH ONE GASOLINE DISPENSING NOZZLE SERVED BY A BALANCE PHASE II VAPOR RECOVERY SYSTEM (G-70-116-F).

## PERMIT UNIT REQUIREMENTS

1. The facility-wide gasoline throughput shall not exceed either of the following: 10,000 gallons in any consecutive 30-day period or 24,000 gallons per calendar year. Records shall be maintained to demonstrate compliance with these limits. [District Rules 2201 and 4622, 4.0, 4.1 & 4.2] Federally Enforceable Through Title V Permit
2. The Phase I and Phase II vapor recovery systems shall be installed and maintained in accordance with the manufacturer specifications and the ARB Executive Orders specified in this permit, including applicable rules and regulations of the Division of Measurement Standards of the Department of Food and Agriculture, the Office of the State Fire Marshal of the Department of Forestry and Fire Protection, the Division of Occupational Safety and Health of the Department of Industrial Relations, and the Division of Water Quality of the State Water Resources Control Board that have been made conditions of the certification. [District Rules 4621 and 4622] Federally Enforceable Through Title V Permit
3. This gasoline storage and dispensing equipment shall not be used in retail sales, where gasoline dispensed by the unit is subject to payment of California sales tax on gasoline sales. [District Rule 4622] Federally Enforceable Through Title V Permit
4. The storage container(s) shall be installed, maintained, and operated such that they are leak-free. [District Rule 4621] Federally Enforceable Through Title V Permit
5. The Phase I and Phase II vapor recovery systems and gasoline dispensing equipment shall be maintained without leaks as determined in accordance with the test method specified in this permit. [District Rules 4621 and 4622] Federally Enforceable Through Title V Permit
6. A leak is defined as the dripping of VOC-containing liquid at a rate of more than 3 drops per minute, or the detection of any gaseous or vapor emissions with a concentration of total organic compound greater than 10,000 ppmv, as methane, above background when measured in accordance with EPA Test Method 21. [District Rules 4621 and 4622] Federally Enforceable Through Title V Permit
7. No gasoline delivery vessel shall be operated or be allowed to operate unless valid State of California decals are displayed on the cargo container, which attest to the vapor integrity of the container. [District Rule 4621] Federally Enforceable Through Title V Permit
8. No person shall operate any ARB certified Phase II vapor recovery system or any portion thereof that has a major defect or an equipment defect that is identified in any applicable ARB Executive Order until the following conditions have been met: 1) the defect has been repaired, replaced, or adjusted as necessary to correct the defect; 2) the District has been notified, and the District has reinspected the system or authorized the system for use (such authorization shall not include the authority to operate the equipment prior to the correction of the defective components); and 3) all major defects, after repair, are duly entered into the Operations and Maintenance (O&M) manual. [District Rule 4622] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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9. Upon identification of any major defects, the permittee shall tag "Out-of-Order" all dispensing equipment for which vapor recovery has been impaired. Tagged equipment shall be rendered inoperable and the tag(s) shall not be removed until the defective equipment has been repaired, replaced, or adjusted, as necessary. In the case of defects identified by the District, tagged equipment shall be rendered inoperable, and the tag shall not be removed until the District has been notified of the repairs, and the District has either reinspected the system or authorized the tagged equipment for use. [District Rule 4622] Federally Enforceable Through Title V Permit
10. The permittee shall implement a periodic maintenance inspection program for the certified Phase II vapor recovery system consistent with the requirements of this permit. The program shall be documented in an operation and maintenance (O&M) manual and shall at a minimum contain the following information: 1) copies of all vapor recovery performance tests; 2) all applicable ARB Executive Orders, Approval Letters, and District Permits; 3) the manufacturer's specifications and instructions for installation, operation, repair, and maintenance required pursuant to ARB Certification Procedure CP-201, and any additional instruction provided by the manufacturer; 4) system and/or component testing requirements, including test schedules and passing criteria for each of the standard tests required by this permit (the owner/operator may include any non-ARB required diagnostic and other tests as part of the testing requirements), and 5) additional O&M instructions, if any, that are designed to ensure compliance with the applicable rules, regulations, ARB Executive Orders, and District permit conditions, including replacement schedules for failure or wear prone components. [District Rule 4622] Federally Enforceable Through Title V Permit
11. The permittee shall conduct periodic maintenance inspections based on the greatest monthly throughput of gasoline dispensed by the facility in the previous year as follows: A) less than 2,500 gallons - one day per month; B) 2,500 to less than 25,000 gallons - one day per week; or C) 25,000 gallons or greater - five days per week. All inspections shall be documented within the O & M Manual. [District Rules 4621 and 4622] Federally Enforceable Through Title V Permit
12. Periodic maintenance inspections of the Phase I vapor recovery system shall include, at a minimum, verification that 1) the fill caps and vapor caps are not missing, damaged, or loose; 2) the fill cap gasket and vapor cap gaskets are not missing or damaged; 3) the fill adapter and vapor adapter are securely attached to the risers; 4) where applicable, the spring-loaded submerged fill tube seals properly against the coaxial tubing; 5) the dry break (poppet-valve) is not missing or damaged; and 6) the submerged fill tube is not missing or damaged. [District Rule 4621] Federally Enforceable Through Title V Permit
13. Periodic maintenance inspections of the Phase II vapor recovery system shall include, at a minimum, verification that 1) the fueling instructions required by this permit are clearly displayed with the appropriate toll-free complaint phone number and toxic warning signs; 2) the following nozzle components are in place and in good condition as specified in ARB Executive Order as applicable: faceplate/facecone, bellows, latching device spring, vapor check valve, spout (proper diameter/vapor collection holes), insertion interlock mechanism, automatic shut-off mechanism, and hold open latch (unless prohibited by law or the local fire control authority); 3) the hoses are not torn, flattened or crimped; 4) the vapor path of the coaxial hoses associated with bellows equipped nozzles does not contain more than 100 ml of liquid if applicable; and 5) the vapor processing unit is functioning properly, for operations that are required to have or possess such a unit. [District Rule 4622] Federally Enforceable Through Title V Permit
14. In the event of a separation due to a drive off, the permittee shall, unless otherwise specified in the applicable ARB Executive Order, conduct a visual inspection of the affected equipment and either 1) perform qualified repairs on any damaged components and conduct applicable re-verification tests pursuant to the requirements of this permit, or 2) replace the affected nozzles, coaxial hoses, breakaway couplings, and any other damaged components with new or certified rebuilt components that are ARB certified. The activities shall be documented in accordance with the requirements of this permit before placing the affected equipment back in service. [District Rule 4622] Federally Enforceable Through Title V Permit
15. The permittee shall conduct all periodic vapor recovery system performance tests specified in this permit, no more than 30 days before or after the required compliance testing date, unless otherwise required under the applicable ARB Executive Order. [District Rules 4621 and 4622] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

16. For certified Phase II vapor recovery systems with liquid removal devices, the permittee shall perform and pass an ARB TP-201.6 Liquid Removal Test whenever the liquid in the vapor path exceeds 100 ml of liquid. The amount of liquid in the vapor path shall be measured by lowering the gasoline dispensing nozzle into a container until such time that no more liquid drains from the nozzle. The amount of liquid drained into the container shall be measured using a graduated cylinder or graduated beaker. The vapor path shall be inspected once per month if monthly throughput is below 2,500 gallons or once per week otherwise. [District Rule 4622] Federally Enforceable Through Title V Permit
17. The permittee shall perform and pass a Static Leak Test for Aboveground Tanks using ARB TP-201.3B or TP-206.3 at least once every 12 months. [District Rules 4621 and 4622] Federally Enforceable Through Title V Permit
18. A person conducting testing of, or repairs to, a certified vapor recovery system shall be in compliance with District Rule 1177 (Gasoline Dispensing Facility Tester Certification). [District Rules 4621 and 4622] Federally Enforceable Through Title V Permit
19. A person performing installation of, or maintenance on, a certified Phase I or Phase II vapor recovery system shall be certified by the ICC for Vapor Recovery System Installation and Repair, or work under the direct and personal supervision of an individual physically present at the work site who is certified. The ICC certification shall be renewed every 24 months. [District Rules 4621 and 4622] Federally Enforceable Through Title V Permit
20. Proof of the ICC certification and all other certifications required by the Executive Order and installation and operation manual shall be made available onsite. [District Rules 4621 and 4622] Federally Enforceable Through Title V Permit
21. The permittee shall notify the District at least 7 days prior to each performance test. The test results shall be submitted to the District no later than 30 days after the completion of each test. [District Rule 4621] Federally Enforceable Through Title V Permit
22. The permittee shall maintain a copy of all test results. The test results shall be dated and shall contain the name, address, and telephone number of the company responsible for system installation and testing. [District Rule 4622] Federally Enforceable Through Title V Permit
23. The permittee shall maintain on the premises a log of any repairs made to the certified Phase I or Phase II vapor recovery system. The repair log shall include the following: 1) date and time of each repair; 2) the name and applicable certification numbers of the person(s) who performed the repair, and if applicable, the name, address and phone number of the person's employer; 3) description of service performed; 4) each component that was repaired, serviced, or removed; 5) each component that was installed as replacement, if applicable; and 6) receipts or other documents for parts used in the repair and, if applicable, work orders which shall include the name and signature of the person responsible for performing the repairs. [District Rule 4622] Federally Enforceable Through Title V Permit
24. The O&M manual shall be kept at the dispensing operation and made available to any person who operates, inspects, maintains, repairs, or tests the equipment at the operation as well as to District personnel upon request. [District Rule 4622] Federally Enforceable Through Title V Permit
25. The permittee shall maintain records of the monthly and of the annual gasoline throughput. [District Rules 2201, 4621 and 4622] Federally Enforceable Through Title V Permit
26. All records required by this permit shall be retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rules 2201, 4621, 4622] Federally Enforceable Through Title V Permit

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** N-608-13-5

**EXPIRATION DATE:** 10/31/2009

**EQUIPMENT DESCRIPTION:**

267 BHP CATERPILLAR MODEL 3306-DI DIESEL FIRED EMERGENCY IC ENGINE POWERING A FIRE PUMP (SERIAL # 64Z204154).

## PERMIT UNIT REQUIREMENTS

1. {2414} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
2. 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
3. This engine shall be fired solely on CARB certified diesel fuel. [17 CCR 93115] Federally Enforceable Through Title V Permit
4. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements or emission control system supplier. [District Rule 4702] Federally Enforceable Through Title V Permit
5. The permittee shall monitor the operational characteristics of the engine as recommended by the engine manufacturer or emission control system supplier. [District Rule 4702] Federally Enforceable Through Title V Permit
6. This engine shall be operated only for maintenance, testing, and required regulatory purposes, and during emergency situations. For testing purposes, the engine shall only be operated the number of hours necessary to comply with the testing requirements of the National Fire Protection Association (NFPA) 25 - "Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems", 1998 edition. Total hours of operation for all maintenance, testing, and required regulatory purposes shall not exceed 100 hours per calendar year. [District Rule 4702, and 17 CCR 93115] Federally Enforceable Through Title V Permit
7. The permittee shall maintain records of the hours of emergency and non-emergency operation and of the type of fuel used. Operation records shall include the date, the number of hours of operation, and the purpose of the operation (e.g., load testing, weekly testing, rolling blackout, general area power outage, etc.). For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit
8. The permittee shall maintain monthly records of the type of fuel purchased, the amount of fuel purchased, the date that the fuel was purchased, the signature of the individual that received the fuel and the signature of the fuel supplier indicating that the fuel was delivered. [17 CCR 93115] Federally Enforceable Through Title V Permit
9. All records shall be maintained and retained on-site for a minimum of 5 years, and shall be made available for District inspection upon request. [District Rule 4702, and 17 CCR 93115] Federally Enforceable Through Title V Permit
10. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: County Rule 407 (San Joaquin). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** N-608-14-5

**EXPIRATION DATE:** 10/31/2009

**EQUIPMENT DESCRIPTION:**

267 BHP CATERPILLAR MODEL 3306-DI DIESEL FIRED EMERGENCY IC ENGINE POWERING A FIRE PUMP (SERIAL # 64Z204157).

## PERMIT UNIT REQUIREMENTS

1. {2414} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
2. 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
3. This engine shall be fired solely on CARB certified diesel fuel. [17 CCR 93115] Federally Enforceable Through Title V Permit
4. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements or emission control system supplier. [District Rule 4702] Federally Enforceable Through Title V Permit
5. The permittee shall monitor the operational characteristics of the engine as recommended by the engine manufacturer or emission control system supplier. [District Rule 4702] Federally Enforceable Through Title V Permit
6. This engine shall be operated only for maintenance, testing, and required regulatory purposes, and during emergency situations. For testing purposes, the engine shall only be operated the number of hours necessary to comply with the testing requirements of the National Fire Protection Association (NFPA) 25 - "Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems", 1998 edition. Total hours of operation for all maintenance, testing, and required regulatory purposes shall not exceed 100 hours per calendar year. [District Rule 4702, and 17 CCR 93115] Federally Enforceable Through Title V Permit
7. The permittee shall maintain records of the hours of emergency and non-emergency operation and of the type of fuel used. Operation records shall include the date, the number of hours of operation, and the purpose of the operation (e.g., load testing, weekly testing, rolling blackout, general area power outage, etc.). For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit
8. The permittee shall maintain monthly records of the type of fuel purchased, the amount of fuel purchased, the date that the fuel was purchased, the signature of the individual that received the fuel and the signature of the fuel supplier indicating that the fuel was delivered. [17 CCR 93115] Federally Enforceable Through Title V Permit
9. All records shall be maintained and retained on-site for a minimum of 5 years, and shall be made available for District inspection upon request. [District Rule 4702, and 17 CCR 93115] Federally Enforceable Through Title V Permit
10. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: County Rule 407 (San Joaquin). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** N-608-15-2

**EXPIRATION DATE:** 10/31/2009

**EQUIPMENT DESCRIPTION:**

220 BHP NATURAL GAS FIRED RICH BURN EMERGENCY IC ENGINE POWERING AN ELECTRICAL GENERATOR

## PERMIT UNIT REQUIREMENTS

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1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.0] Federally Enforceable Through Title V Permit
2. The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90% control efficiency. [District NSR Rule] Federally Enforceable Through Title V Permit
3. The engine shall be fired solely on PUC regulated natural gas. [District NSR Rule] Federally Enforceable Through Title V Permit
4. The engine shall be operated only for maintenance, testing, and required regulatory purposes, and during emergency situations. Operation of the engine for maintenance and testing purposes shall not exceed 82 hours per year, as determined by an operational nonresettable elapsed operating time meter. Should non-emergency operation exceed 82 hours in any one year then current Best Available Control Technology may be required. [District NSR Rule and District Rules 2201, 4702, 3.15 & 4.2.1] Federally Enforceable Through Title V Permit
5. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements or emission control system supplier. [District Rule 4702] Federally Enforceable Through Title V Permit
6. The permittee shall monitor the operational characteristics of the engine as recommended by the engine manufacturer or emission control system supplier. [District Rule 4702] Federally Enforceable Through Title V Permit
7. The permittee shall maintain records of the hours of emergency and non-emergency operation and of the type of fuel used. Operation records shall include the date, the number of hours of operation, and the purpose of the operation (e.g., load testing, weekly testing, rolling blackout, general area power outage, etc.). Such records shall be retained for a period of at least 5 years and made available for District inspection upon request. [District Rules 1070, 2520, 9.4.2 and 4702] Federally Enforceable Through Title V Permit

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: N-608-16-3

EXPIRATION DATE: 10/31/2009

## EQUIPMENT DESCRIPTION:

ONE 3,500 GALLON ABOVEGROUND METHANOL STORAGE TANK (TURNER CUT STATION)

## PERMIT UNIT REQUIREMENTS

1. {2768} The tank shall be in a gas-tight condition. The pressure-vacuum (PV) relief valve shall be set to within 10% of the maximum allowable working pressure of the tank, permanently labeled with the operating pressure settings, properly maintained in good operating order in accordance with the manufacturer's instructions, and shall remain in gas-tight condition except when the operating pressure exceeds the valve's set pressure. [District Rule 4623, 5.2] Federally Enforceable Through Title V Permit
2. {2602} A gas-tight condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and Rule 4623 and shall be reported as a deviation. [District Rule 4623, 3.9 and 6.4.8] Federally Enforceable Through Title V Permit
3. The permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
4. {2770} The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. If the tank stores crude oil or petroleum distillates, the permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.4] Federally Enforceable Through Title V Permit
5. {2590} For other organic liquids, the true vapor pressure (TVP) shall be measured using Reid vapor pressure ASTM Method D323, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance of the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulations for AB 2588", dated August 1989. As an alternative to using ASTM D 323, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4.3] Federally Enforceable Through Title V Permit
6. {2773} Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. {2592} As used in this permit, the term "source or type" shall mean liquids with similar characteristics. The operator shall maintain records of API gravity of petroleum liquids stored in this unit to determine which are from common source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: N-608-17-3

EXPIRATION DATE: 10/31/2009

**EQUIPMENT DESCRIPTION:**

ONE 3,500 GALLON ABOVEGROUND METHANOL STORAGE TANK (WHISKY SLOUGH STATION)

## PERMIT UNIT REQUIREMENTS

1. {2768} The tank shall be in a gas-tight condition. The pressure-vacuum (PV) relief valve shall be set to within 10% of the maximum allowable working pressure of the tank, permanently labeled with the operating pressure settings, properly maintained in good operating order in accordance with the manufacturer's instructions, and shall remain in gas-tight condition except when the operating pressure exceeds the valve's set pressure. [District Rule 4623, 5.2] Federally Enforceable Through Title V Permit
2. {2602} A gas-tight condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A reading in excess of 10,000 ppmv above background is a violation of this permit and Rule 4623 and shall be reported as a deviation. [District Rule 4623, 3.9 and 6.4.8] Federally Enforceable Through Title V Permit
3. The permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
4. {2770} The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. If the tank stores crude oil or petroleum distillates, the permittee shall also conduct an API gravity testing. [District Rule 4623, 6.2.1.4] Federally Enforceable Through Title V Permit
5. {2590} For other organic liquids, the true vapor pressure (TVP) shall be measured using Reid vapor pressure ASTM Method D323, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance of the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulations for AB 2588", dated August 1989. As an alternative to using ASTM D 323, the TVP of crude oil with an API gravity range of greater than 26 degrees up to 30 degrees may be determined by using other equivalent test methods approved by APCO, ARB and EPA. [District Rule 4623, 6.4.3] Federally Enforceable Through Title V Permit
6. {2773} Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. {2592} As used in this permit, the term "source or type" shall mean liquids with similar characteristics. The operator shall maintain records of API gravity of petroleum liquids stored in this unit to determine which are from common source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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

Facility Name: PACIFIC GAS & ELECTRIC CO.

Location: MCDONALD ISLAND COMPRESSOR STATION, HOLT, CA 95734

N-608-17-3 : May 17 2011 2:20PM - SCHONHOM

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** N-608-18-3

**EXPIRATION DATE:** 10/31/2009

**EQUIPMENT DESCRIPTION:**

1,500 BHP WAUKESHA MODEL 9390 GL LEAN BURN NATURAL GAS FIRED IC ENGINE POWERING A NATURAL GAS COMPRESSOR (PG&E DESIGNATION K-3).

## PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.0] Federally Enforceable Through Title V Permit
2. The permittee shall install and operate a nonresettable fuel meter and a nonresettable elapsed operating time meter. In lieu of installing a nonresettable fuel meter, the owner or operator may use a non-resettable elapsed operating time meter in conjunction with the engine manufacturer's maximum rated fuel consumption to determine annual fuel usage. [District NSR Rule and District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
3. 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, 6.5.5] Federally Enforceable Through Title V Permit
4. 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, 6.5.1] Federally Enforceable Through Title V Permit
5. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Stanislaus County Rule 407] Federally Enforceable Through Title V Permit
6. The NOx emissions shall not exceed 0.9 g/bhp-hr. [District NSR Rule] Federally Enforceable Through Title V Permit
7. The CO emissions shall not exceed 3.0 g/bhp-hr. [District NSR Rule] Federally Enforceable Through Title V Permit
8. The VOC emissions, as methane, shall not exceed 0.9 g/bhp-hr. [District NSR Rule] Federally Enforceable Through Title V Permit
9. The SOx emissions shall not exceed 0.002 g/bhp-hr. [District NSR Rule] Federally Enforceable Through Title V Permit
10. The PM10 emissions shall not exceed 0.1 g/bhp-hr. [District NSR Rule] Federally Enforceable Through Title V Permit
11. The engine shall not operate more than 6,600 hours during any one calendar year. [District NSR Rule] Federally Enforceable Through Title V Permit
12. The engine shall not operate for more than 1,104 hours during the first calendar quarter, nor more than 1,104 hours during the fourth calendar quarter. Either limit may be increased by one hour for each entire hour that the engine does not operate during the second or third calendar quarters. [District NSR Rule] Federally Enforceable Through Title V Permit
13. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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



14. If the engine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM method D 1072, D 3031, D 4084 or D 3246. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
15. If the engine is fired on natural gas but not PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until 8 consecutive weeks show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
16. Source testing to measure the NO<sub>x</sub>, CO, and VOC emissions from this unit shall be conducted not less than once every 24 months. [District Rule 4702, 6.3] Federally Enforceable Through Title V Permit
17. 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, 6.3] Federally Enforceable Through Title V Permit
18. 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, NO<sub>x</sub>, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702, 6.3] Federally Enforceable Through Title V Permit
19. The following test methods shall be used: NO<sub>x</sub> (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 25A or 25B, or ARB Method 100. [District Rules 1081, 5.0 and 4702, 6.4] Federally Enforceable Through Title V Permit
20. 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, 7.1] Federally Enforceable Through Title V Permit
21. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.3] Federally Enforceable Through Title V Permit
22. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081, 3.0] Federally Enforceable Through Title V Permit
23. The ignition timing shall be checked, and if necessary, adjusted to within the manufacturer's specification at least once every 720 operating hours. [District Rule 4702, 6.5.2] Federally Enforceable Through Title V Permit
24. The valve clearances shall be checked, and if necessary, adjusted to within the manufacturer's specification at least once every three calendar months. [District Rule 4702, 6.5.5] Federally Enforceable Through Title V Permit
25. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> at least once every quarter (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, 5.6.9] Federally Enforceable Through Title V Permit
26. If either the NO<sub>x</sub> or CO concentrations corrected to 15% O<sub>2</sub>, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate that a violation subject to enforcement action has occurred. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rule 4702, 6.5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

27. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit-to-Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least 5 readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702, 5.6.9] Federally Enforceable Through Title V Permit
28. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 15% O<sub>2</sub>, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702, 6.5.7] Federally Enforceable Through Title V Permit
29. Records of the the cumulative hours of operation on a calendar year basis and on a calendar quarter basis shall be kept. The records shall be updated at least weekly. [District NSR Rule] Federally Enforceable Through Title V Permit
30. The permittee shall maintain records of the dates the ignition timing and valve clearances were checked. The permittee shall also maintain records of the manufacturer's recommended ignition timing and valve clearances. [District Rule 4702, 6.2] Federally Enforceable Through Title V Permit
31. If records indicate that the ignition timing or valve clearances have not been checked within the time frames listed, the District may require the permittee to conduct a source test using EPA approved methods to verify compliance with emission limits. [District Rule 4702, 6.2] Federally Enforceable Through Title V Permit
32. 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, 6.2] Federally Enforceable Through Title V Permit
33. 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, 6.5.8] Federally Enforceable Through Title V Permit
34. All records shall be maintained and retained on-site for a minimum of 5 years, and shall be made available for District inspection upon request. [District Rules 4701, 6.2.3 and 4702, 6.2.2] Federally Enforceable Through Title V Permit

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

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: N-608-19-3

EXPIRATION DATE: 10/31/2009

**EQUIPMENT DESCRIPTION:**

1,500 BHP WAUKESHA MODEL 9390 GL LEAN BURN NATURAL GAS FIRED IC ENGINE POWERING A NATURAL GAS COMPRESSOR (PG&E DESIGNATION K-4).

## PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.0] Federally Enforceable Through Title V Permit
2. The permittee shall install and operate a nonresettable fuel meter and a nonresettable elapsed operating time meter. In lieu of installing a nonresettable fuel meter, the owner or operator may use a non-resettable elapsed operating time meter in conjunction with the engine manufacturer's maximum rated fuel consumption to determine annual fuel usage. [District NSR Rule and District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
3. 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, 6.5.5] Federally Enforceable Through Title V Permit
4. 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, 6.5.1] Federally Enforceable Through Title V Permit
5. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Stanislaus County Rule 407] Federally Enforceable Through Title V Permit
6. The NOx emissions shall not exceed 0.9 g/bhp-hr. [District NSR Rule] Federally Enforceable Through Title V Permit
7. The CO emissions shall not exceed 3.0 g/bhp-hr. [District NSR Rule] Federally Enforceable Through Title V Permit
8. The VOC emissions, as methane, shall not exceed 0.9 g/bhp-hr. [District NSR Rule] Federally Enforceable Through Title V Permit
9. The SOx emissions shall not exceed 0.002 g/bhp-hr. [District NSR Rule] Federally Enforceable Through Title V Permit
10. The PM10 emissions shall not exceed 0.1 g/bhp-hr. [District NSR Rule] Federally Enforceable Through Title V Permit
11. The engine shall not operate more than 6,600 hours during any one calendar year. [District NSR Rule] Federally Enforceable Through Title V Permit
12. The engine shall not operate for more than 1,104 hours during the first calendar quarter, nor more than 1,104 hours during the fourth calendar quarter. Either limit may be increased by one hour for each entire hour that the engine does not operate during the second or third calendar quarters. [District NSR Rule] Federally Enforceable Through Title V Permit
13. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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

14. If the engine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM method D 1072, D 3031, D 4084 or D 3246. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
15. If the engine is fired on natural gas but not PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until 8 consecutive weeks show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
16. Source testing to measure the NO<sub>x</sub>, CO, and VOC emissions from this unit shall be conducted not less than once every 24 months. [District Rule 4702, 6.3] Federally Enforceable Through Title V Permit
17. 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, 6.3] Federally Enforceable Through Title V Permit
18. 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, NO<sub>x</sub>, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702, 6.3] Federally Enforceable Through Title V Permit
19. The following test methods shall be used: NO<sub>x</sub> (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 25A or 25B, or ARB Method 100. [District Rules 1081, 5.0 and 4702, 6.4] Federally Enforceable Through Title V Permit
20. 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, 7.1] Federally Enforceable Through Title V Permit
21. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.3] Federally Enforceable Through Title V Permit
22. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081, 3.0] Federally Enforceable Through Title V Permit
23. The ignition timing shall be checked, and if necessary, adjusted to within the manufacturer's specification at least once every 720 operating hours. [District Rule 4702, 6.5.2] Federally Enforceable Through Title V Permit
24. The valve clearances shall be checked, and if necessary, adjusted to within the manufacturer's specification at least once every three calendar months. [District Rule 4702, 6.5.5] Federally Enforceable Through Title V Permit
25. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> at least once every quarter (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, 5.6.9] Federally Enforceable Through Title V Permit
26. If either the NO<sub>x</sub> or CO concentrations corrected to 15% O<sub>2</sub>, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate that a violation subject to enforcement action has occurred. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rule 4702, 6.5.4] Federally Enforceable Through Title V Permit

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

27. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702, 5.6.9] Federally Enforceable Through Title V Permit
28. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 15% O<sub>2</sub>, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702, 6.5.7] Federally Enforceable Through Title V Permit
29. Records of the the cumulative hours of operation on a calendar year basis and on a calendar quarter basis shall be kept. The records shall be updated at least weekly. [District NSR Rule] Federally Enforceable Through Title V Permit
30. The permittee shall maintain records of the dates the ignition timing and valve clearances were checked. The permittee shall also maintain records of the manufacturer's recommended ignition timing and valve clearances. [District Rule 4702, 6.2] Federally Enforceable Through Title V Permit
31. If records indicate that the ignition timing or valve clearances have not been checked within the time frames listed, the District may require the permittee to conduct a source test using EPA approved methods to verify compliance with emission limits. [District Rule 4702, 6.2] Federally Enforceable Through Title V Permit
32. 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, 6.2] Federally Enforceable Through Title V Permit
33. 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, 6.5.8] Federally Enforceable Through Title V Permit
34. All records shall be maintained and retained on-site for a minimum of 5 years, and shall be made available for District inspection upon request. [District Rules 4701, 6.2.3 and 4702, 6.2.2] Federally Enforceable Through Title V Permit

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

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: N-608-20-3

EXPIRATION DATE: 10/31/2009

## EQUIPMENT DESCRIPTION:

1,150 BHP WAUKESHA MODEL 7042 GL LEAN BURN NATURAL GAS FIRED IC ENGINE POWERING A NATURAL GAS COMPRESSOR (PG&E DESIGNATION K-5).

## PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.0] Federally Enforceable Through Title V Permit
2. The permittee shall install and operate a nonresettable fuel meter and a nonresettable elapsed operating time meter. In lieu of installing a nonresettable fuel meter, the owner or operator may use a non-resettable elapsed operating time meter in conjunction with the engine manufacturer's maximum rated fuel consumption to determine annual fuel usage. [District NSR Rule and District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
3. 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, 6.5.5] Federally Enforceable Through Title V Permit
4. 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, 6.5.1] Federally Enforceable Through Title V Permit
5. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Stanislaus County Rule 407] Federally Enforceable Through Title V Permit
6. The NO<sub>x</sub> emissions shall not exceed 0.9 g/bhp-hr. [District NSR Rule] Federally Enforceable Through Title V Permit
7. The CO emissions shall not exceed 3.0 g/bhp-hr. [District NSR Rule] Federally Enforceable Through Title V Permit
8. The VOC emissions, as methane, shall not exceed 0.9 g/bhp-hr. [District NSR Rule] Federally Enforceable Through Title V Permit
9. The SO<sub>x</sub> emissions shall not exceed 0.002 g/bhp-hr. [District NSR Rule] Federally Enforceable Through Title V Permit
10. The PM<sub>10</sub> emissions shall not exceed 0.1 g/bhp-hr. [District NSR Rule] Federally Enforceable Through Title V Permit
11. The engine shall not operate more than 6,600 hours during any one calendar year. [District NSR Rule] Federally Enforceable Through Title V Permit
12. The engine shall not operate for more than 1,104 hours during the first calendar quarter, nor more than 1,104 hours during the fourth calendar quarter. Either limit may be increased by one hour for each entire hour that the engine does not operate during the second or third calendar quarters. [District NSR Rule] Federally Enforceable Through Title V Permit
13. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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

14. If the engine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM method D 1072, D 3031, D 4084 or D 3246. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
15. If the engine is fired on natural gas but not PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until 8 consecutive weeks show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
16. Source testing to measure the NO<sub>x</sub>, CO, and VOC emissions from this unit shall be conducted not less than once every 24 months. [District Rule 4702, 6.3] Federally Enforceable Through Title V Permit
17. 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, 6.3] Federally Enforceable Through Title V Permit
18. 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, NO<sub>x</sub>, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702, 6.3] Federally Enforceable Through Title V Permit
19. The following test methods shall be used: NO<sub>x</sub> (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 25A or 25B, or ARB Method 100. [District Rules 1081, 5.0 and 4702, 6.4] Federally Enforceable Through Title V Permit
20. 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, 7.1] Federally Enforceable Through Title V Permit
21. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.3] Federally Enforceable Through Title V Permit
22. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081, 3.0] Federally Enforceable Through Title V Permit
23. The ignition timing shall be checked, and if necessary, adjusted to within the manufacturer's specification at least once every 720 operating hours. [District Rule 4702, 6.5.2] Federally Enforceable Through Title V Permit
24. The valve clearances shall be checked, and if necessary, adjusted to within the manufacturer's specification at least once every three calendar months. [District Rule 4702, 6.5.5] Federally Enforceable Through Title V Permit
25. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> at least once every quarter (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, 5.6.9] Federally Enforceable Through Title V Permit
26. If either the NO<sub>x</sub> or CO concentrations corrected to 15% O<sub>2</sub>, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate that a violation subject to enforcement action has occurred. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rule 4702, 6.5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

27. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit-to-Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least 5 readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702, 5.6.9] Federally Enforceable Through Title V Permit
28. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 15% O<sub>2</sub>, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702, 6.5.7] Federally Enforceable Through Title V Permit
29. Records of the the cumulative hours of operation on a calendar year basis and on a calendar quarter basis shall be kept. The records shall be updated at least weekly. [District NSR Rule] Federally Enforceable Through Title V Permit
30. The permittee shall maintain records of the dates the ignition timing and valve clearances were checked. The permittee shall also maintain records of the manufacturer's recommended ignition timing and valve clearances. [District Rule 4702, 6.2] Federally Enforceable Through Title V Permit
31. If records indicate that the ignition timing or valve clearances have not been checked within the time frames listed, the District may require the permittee to conduct a source test using EPA approved methods to verify compliance with emission limits. [District Rule 4702, 6.2] Federally Enforceable Through Title V Permit
32. 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, 6.2] Federally Enforceable Through Title V Permit
33. 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, 6.5.8] Federally Enforceable Through Title V Permit
34. All records shall be maintained and retained on-site for a minimum of 5 years, and shall be made available for District inspection upon request. [District Rules 4701, 6.2.3 and 4702, 6.2.2] Federally Enforceable Through Title V Permit

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

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** N-608-21-3

**EXPIRATION DATE:** 10/31/2009

**EQUIPMENT DESCRIPTION:**

1,150 BHP WAUKESHA MODEL 7042 GL LEAN BURN NATURAL GAS FIRED IC ENGINE POWERING A NATURAL GAS COMPRESSOR (PG&E DESIGNATION K-6).

## PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.0] Federally Enforceable Through Title V Permit
2. The permittee shall install and operate a nonresettable fuel meter and a nonresettable elapsed operating time meter. In lieu of installing a nonresettable fuel meter, the owner or operator may use a non-resettable elapsed operating time meter in conjunction with the engine manufacturer's maximum rated fuel consumption to determine annual fuel usage. [District NSR Rule and District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
3. 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, 6.5.5] Federally Enforceable Through Title V Permit
4. 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, 6.5.1] Federally Enforceable Through Title V Permit
5. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Stanislaus County Rule 407] Federally Enforceable Through Title V Permit
6. The NOx emissions shall not exceed 0.9 g/bhp-hr. [District NSR Rule] Federally Enforceable Through Title V Permit
7. The CO emissions shall not exceed 3.0 g/bhp-hr. [District NSR Rule] Federally Enforceable Through Title V Permit
8. The VOC emissions, as methane, shall not exceed 0.9 g/bhp-hr. [District NSR Rule] Federally Enforceable Through Title V Permit
9. The SOx emissions shall not exceed 0.002 g/bhp-hr. [District NSR Rule] Federally Enforceable Through Title V Permit
10. The PM10 emissions shall not exceed 0.1 g/bhp-hr. [District NSR Rule] Federally Enforceable Through Title V Permit
11. The engine shall not operate more than 6,600 hours during any one calendar year. [District NSR Rule] Federally Enforceable Through Title V Permit
12. The engine shall not operate for more than 1,104 hours during the first calendar quarter, nor more than 1,104 hours during the fourth calendar quarter. Either limit may be increased by one hour for each entire hour that the engine does not operate during the second or third calendar quarters. [District NSR Rule] Federally Enforceable Through Title V Permit
13. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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

14. If the engine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM method D 1072, D 3031, D 4084 or D 3246. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
15. If the engine is fired on natural gas but not PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until 8 consecutive weeks show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
16. Source testing to measure the NO<sub>x</sub>, CO, and VOC emissions from this unit shall be conducted not less than once every 24 months. [District Rule 4702, 6.3] Federally Enforceable Through Title V Permit
17. 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, 6.3] Federally Enforceable Through Title V Permit
18. 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, NO<sub>x</sub>, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702, 6.3] Federally Enforceable Through Title V Permit
19. The following test methods shall be used: NO<sub>x</sub> (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 25A or 25B, or ARB Method 100. [District Rules 1081, 5.0 and 4702, 6.4] Federally Enforceable Through Title V Permit
20. 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, 7.1] Federally Enforceable Through Title V Permit
21. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.3] Federally Enforceable Through Title V Permit
22. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081, 3.0] Federally Enforceable Through Title V Permit
23. The ignition timing shall be checked, and if necessary, adjusted to within the manufacturer's specification at least once every 720 operating hours. [District Rule 4702, 6.5.2] Federally Enforceable Through Title V Permit
24. The valve clearances shall be checked, and if necessary, adjusted to within the manufacturer's specification at least once every three calendar months. [District Rule 4702, 6.5.5] Federally Enforceable Through Title V Permit
25. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> at least once every quarter (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, 5.6.9] Federally Enforceable Through Title V Permit
26. If either the NO<sub>x</sub> or CO concentrations corrected to 15% O<sub>2</sub>, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate that a violation subject to enforcement action has occurred. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rule 4702, 6.5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

27. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit-to-Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least 5 readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702, 5.6.9] Federally Enforceable Through Title V Permit
28. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 15% O<sub>2</sub>, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702, 6.5.7] Federally Enforceable Through Title V Permit
29. Records of the the cumulative hours of operation on a calendar year basis and on a calendar quarter basis shall be kept. The records shall be updated at least weekly. [District NSR Rule] Federally Enforceable Through Title V Permit
30. The permittee shall maintain records of the dates the ignition timing and valve clearances were checked. The permittee shall also maintain records of the manufacturer's recommended ignition timing and valve clearances. [District Rule 4702, 6.2] Federally Enforceable Through Title V Permit
31. If records indicate that the ignition timing or valve clearances have not been checked within the time frames listed, the District may require the permittee to conduct a source test using EPA approved methods to verify compliance with emission limits. [District Rule 4702, 6.2] Federally Enforceable Through Title V Permit
32. 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, 6.2] Federally Enforceable Through Title V Permit
33. 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, 6.5.8] Federally Enforceable Through Title V Permit
34. All records shall be maintained and retained on-site for a minimum of 5 years, and shall be made available for District inspection upon request. [District Rules 4701, 6.2.3 and 4702, 6.2.2] Federally Enforceable Through Title V Permit

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

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** N-608-24-3

**EXPIRATION DATE:** 10/31/2009

**EQUIPMENT DESCRIPTION:**

NATURAL GAS DEHYDRATION SYSTEM (TURNER CUT STATION) AND ODORIZING SYSTEM (SHARED WITH N-608-7) INCLUDING TWO CONTACTOR TOWERS AND A 3-PHASE GAS SEPARATOR SERVED BY A 6.75 MMBTU/HR THERMAL OXIDIZER (SHARED WITH N-608-7) AND A PERMIT EXEMPT < 5 MMBTU/HR REBOILER (#2)

## PERMIT UNIT REQUIREMENTS

1. The thermal oxidizer shall be fired solely on PUC quality natural gas. [District NSR Rule] Federally Enforceable Through Title V Permit
2. The thermal oxidizer shall be equipped with an operational temperature indicator at the combustion chamber. The temperature shall be monitored and recorded continuously. [District NSR Rule] Federally Enforceable Through Title V Permit
3. The thermal oxidizer shall be heated to at least 1400 degrees Fahrenheit prior to any contaminated air steam entering the oxidizer, and shall operate at a minimum temperature of 1400 degrees Fahrenheit. [District NSR Rule] Federally Enforceable Through Title V Permit
4. The thermal oxidizer shall operate at all times when dehydration is taking place. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Only glycol shall be used as the dehydration medium. [District NSR Rule] Federally Enforceable Through Title V Permit
6. The VOC control efficiency of the thermal oxidizer shall not be less than 97.5%. [District NSR Rule and District Rule 4408, 5.1.3] Federally Enforceable Through Title V Permit
7. NOx emissions from natural gas combustion in the thermal oxidizer shall not exceed 0.1 lb/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
8. CO emissions from natural gas combustion in the thermal oxidizer shall not exceed 0.084 lb/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
9. PM10 emissions from natural gas combustion in the thermal oxidizer shall not exceed 0.0076 lb/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
10. SOx emissions from natural gas combustion in the thermal oxidizer shall not exceed 0.00285 lb/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
11. The combined VOC emissions from dehydration units N-608-7 and N-608-24, including the combustion contaminants from the thermal oxidizer, shall not exceed 1.95 lb/hr. [District NSR Rule] Federally Enforceable Through Title V Permit
12. Source testing to determine the thermal oxidizer VOC control efficiency and the combined VOC emissions from units N-608-7 and -24 shall be conducted annually. [District Rules 1081, 7.2 and 4408, 5.1.3.2] Federally Enforceable Through Title V Permit
13. 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, 7.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

14. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.3]  
Federally Enforceable Through Title V Permit
15. VOC emissions shall be measured by EPA Method 25, 25A, 25B, or 18. [District Rules 1081, 5.0 and 4408, 6.2.2.4]  
Federally Enforceable Through Title V Permit
16. Permittee shall maintain monthly records of the amount of gas dehydrated by dehydration units N-608-7 and -24.  
[District NSR Rule and District Rule 4408, 6.1.1] Federally Enforceable Through Title V Permit
17. Permittee shall maintain the following records: APCD permit number; location, size of glycol dehydrator reboiler (MMBTU/hr), and type of glycol used; description of any installed VOC control system; flow diagram of the dehydrator and any VOC controls; maintenance records of the VOC control system; reports of source tests; all records necessary to document inputs to and outputs of the GRI-GLYCalc software, if used. [District NSR Rule and District Rule 4408, 6.1.2] Federally Enforceable Through Title V Permit
18. All records shall be retained for a minimum of 5 years, and shall be made available for District inspection upon request. [District Rule 4408, 6.1.4] Federally Enforceable Through Title V Permit

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

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** N-608-25-4

**EXPIRATION DATE:** 10/31/2009

**EQUIPMENT DESCRIPTION:**

NATURAL GAS DEHYDRATION SYSTEM (WHISKY SLOUGH STATION) AND ODORIZING SYSTEM (SHARED WITH N-608-26) INCLUDING TWO CONTACTOR TOWERS AND A 3-PHASE GAS SEPARATOR SERVED BY A 6.75 MMBTU/HR THERMAL OXIDIZER (SHARED WITH N-608-26) AND A PERMIT EXEMPT < 5 MMBTU/HR REBOILER (#3)

## PERMIT UNIT REQUIREMENTS

1. The thermal oxidizer shall be fired solely on PUC quality natural gas. [District NSR Rule] Federally Enforceable Through Title V Permit
2. The thermal oxidizer shall be equipped with an operational temperature indicator at the combustion chamber. The temperature shall be monitored and recorded continuously. [District NSR Rule] Federally Enforceable Through Title V Permit
3. The thermal oxidizer shall be heated to at least 1400 degrees Fahrenheit prior to any contaminated air steam entering the oxidizer, and shall operate at a minimum temperature of 1400 degrees Fahrenheit. [District NSR Rule] Federally Enforceable Through Title V Permit
4. The thermal oxidizer shall operate at all times when dehydration is taking place. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Only glycol shall be used as the dehydration medium. [District NSR Rule] Federally Enforceable Through Title V Permit
6. The VOC control efficiency of the thermal oxidizer shall not be less than 97.5%. [District NSR Rule and District Rule 4408, 5.1.3] Federally Enforceable Through Title V Permit
7. NOx emissions from natural gas combustion in the thermal oxidizer shall not exceed 0.1 lb/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
8. CO emissions from natural gas combustion in the thermal oxidizer shall not exceed 0.084 lb/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
9. PM10 emissions from natural gas combustion in the thermal oxidizer shall not exceed 0.0076 lb/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
10. SOx emissions from natural gas combustion in the thermal oxidizer shall not exceed 0.00285 lb/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
11. The combined VOC emissions from dehydration units N-608-25 and N-608-26, including the combustion contaminants from the thermal oxidizer, shall not exceed 1.95 lb/hr. [District NSR Rule] Federally Enforceable Through Title V Permit
12. Source testing to determine the thermal oxidizer VOC control efficiency and the combined VOC emissions from units N-608-25 and -26 shall be conducted annually. [District Rules 1081, 7.2 and 4408, 5.1.3.2] Federally Enforceable Through Title V Permit
13. 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, 7.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: PACIFIC GAS & ELECTRIC CO.

Location: MCDONALD ISLAND COMPRESSOR STATION, HOLT, CA 95234

N-608-25-4 - May 17 2011 2:20PM - SCHONHOM

14. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.3] Federally Enforceable Through Title V Permit
15. VOC emissions shall be measured by EPA Method 25, 25A, 25B, or 18. [District Rules 1081, 5.0 and 4408, 6.2.2.4] Federally Enforceable Through Title V Permit
16. Permittee shall maintain monthly records of the amount of gas dehydrated by dehydration units N-608-25 and -26. [District NSR Rule and District Rule 4408, 6.1.1] Federally Enforceable Through Title V Permit
17. Permittee shall maintain the following records: APCD permit number; location, size of glycol dehydrator reboiler (MMBTU/hr), and type of glycol used; description of any installed VOC control system; flow diagram of the dehydrator and any VOC controls; maintenance records of the VOC control system; reports of source tests; all records necessary to document inputs to and outputs of the GRI-GLYCalc software, if used. [District NSR Rule and District Rule 4408, 6.1.2] Federally Enforceable Through Title V Permit
18. All records shall be retained for a minimum of 5 years, and shall be made available for District inspection upon request. [District Rule 4408, 6.1.4] Federally Enforceable Through Title V Permit

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

Facility Name: PACIFIC GAS & ELECTRIC CO.

Location: MCDONALD ISLAND COMPRESSOR STATION, HOLT, CA 95234

N-608-25-4: May 17 2011 2:20PM - SCHONHOM

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** N-608-26-4

**EXPIRATION DATE:** 10/31/2009

**EQUIPMENT DESCRIPTION:**

NATURAL GAS DEHYDRATION SYSTEM (WHISKY SLOUGH STATION) AND ODORIZING SYSTEM (SHARED WITH N-608-25) INCLUDING TWO CONTACTOR TOWERS AND A 3-PHASE GAS SEPARATOR SERVED BY A 6.75 MMBTU/HR THERMAL OXIDIZER (SHARED WITH N-608-25) AND A PERMIT EXEMPT < 5 MMBTU/HR REBOILER (#4)

## PERMIT UNIT REQUIREMENTS

1. The thermal oxidizer shall be fired solely on PUC quality natural gas. [District NSR Rule] Federally Enforceable Through Title V Permit
2. The thermal oxidizer shall be equipped with an operational temperature indicator at the combustion chamber. The temperature shall be monitored and recorded continuously. [District NSR Rule] Federally Enforceable Through Title V Permit
3. The thermal oxidizer shall be heated to at least 1400 degrees Fahrenheit prior to any contaminated air steam entering the oxidizer, and shall operate at a minimum temperature of 1400 degrees Fahrenheit. [District NSR Rule] Federally Enforceable Through Title V Permit
4. The thermal oxidizer shall operate at all times when dehydration is taking place. [District NSR Rule] Federally Enforceable Through Title V Permit
5. Only glycol shall be used as the dehydration medium. [District NSR Rule] Federally Enforceable Through Title V Permit
6. The VOC control efficiency of the thermal oxidizer shall not be less than 97.5%. [District NSR Rule and District Rule 4408, 5.1.3] Federally Enforceable Through Title V Permit
7. NOx emissions from natural gas combustion in the thermal oxidizer shall not exceed 0.1 lb/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
8. CO emissions from natural gas combustion in the thermal oxidizer shall not exceed 0.084 lb/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
9. PM10 emissions from natural gas combustion in the thermal oxidizer shall not exceed 0.0076 lb/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
10. SOx emissions from natural gas combustion in the thermal oxidizer shall not exceed 0.00285 lb/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
11. The combined VOC emissions from dehydration units N-608-25 and N-608-26, including the combustion contaminants from the thermal oxidizer, shall not exceed 1.95 lb/hr. [District NSR Rule] Federally Enforceable Through Title V Permit
12. Source testing to determine the thermal oxidizer VOC control efficiency and the combined VOC emissions from units N-608-25 and -26 shall be conducted annually. [District Rules 1081, 7.2 and 4408, 5.1.3.2] Federally Enforceable Through Title V Permit
13. 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, 7.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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



14. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.3]  
Federally Enforceable Through Title V Permit
15. VOC emissions shall be measured by EPA Method 25, 25A, 25B, or 18. [District Rules 1081, 5.0 and 4408, 6.2.2.4]  
Federally Enforceable Through Title V Permit
16. Permittee shall maintain monthly records of the amount of gas dehydrated by dehydration units N-608-25 and -26.  
[District NSR Rule and District Rule 4408, 6.1.1] Federally Enforceable Through Title V Permit
17. Permittee shall maintain the following records: APCD permit number; location, size of glycol dehydrator reboiler (MMBTU/hr), and type of glycol used; description of any installed VOC control system; flow diagram of the dehydrator and any VOC controls; maintenance records of the VOC control system; reports of source tests; all records necessary to document inputs to and outputs of the GRI-GLYCalc software, if used. [District NSR Rule and District Rule 4408, 6.1.2] Federally Enforceable Through Title V Permit
18. All records shall be retained for a minimum of 5 years, and shall be made available for District inspection upon request. [District Rule 4408, 6.1.4] Federally Enforceable Through Title V Permit

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

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** N-608-27-1

**EXPIRATION DATE:** 10/31/2009

**EQUIPMENT DESCRIPTION:**

1,680 BHP WAUKESHA MODEL L7044GSI NATURAL GAS-FIRED IC ENGINE WITH NON-SELECTIVE CATALYTIC REDUCTION (NSCR) AND AN O2 CONTROLLER. THE UNIT POWERS A NATURAL GAS COMPRESSOR (PG&E DESIGNATION K-7)

## PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. Total sulfur content of natural gas combusted shall not exceed 1.0 grain/100 scf. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
3. The permittee shall install and operate a nonresettable fuel meter and a nonresettable elapsed operating time meter. In lieu of installing a nonresettable fuel meter, the owner or operator may use a non-resettable elapsed operating time meter in conjunction with the engine manufacturer's maximum rated fuel consumption to determine annual fuel usage. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
4. The engine shall not operate more than 6,600 hours during any one calendar year. [District NSR Rule] Federally Enforceable Through Title V Permit
5. {1898} 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]
6. 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, 6.5.6] Federally Enforceable Through Title V Permit
7. 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, 6.5.9] Federally Enforceable Through Title V Permit
8. Emissions from this IC engine shall not exceed any of the following limits: 5 ppmvd NOx @ 15% O2 (equivalent to 0.070 g-NOx/bhp-hr), 0.011 g-SOx/bhp-hr, 0.02 g-PM10/bhp-hr, 56 ppmvd CO @ 15% O2 (equivalent to 0.475 g-CO/bhp-hr), or 25 ppmvd VOC @ 15% O2 (equivalent to 0.121 g-VOC/bhp-hr). [District Rules 2201 and 4702, 5.1] Federally Enforceable Through Title V Permit
9. Source testing to measure the NOx, CO, and VOC emissions from this unit shall be conducted not less than once every 24 months. [District Rule 4702, 6.3.2.1] Federally Enforceable Through Title V Permit
10. 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 Rules 4702, 6.3.3] 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.

11. 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, NO<sub>x</sub>, and CO concentrations shall be reported in ppmv; corrected to 15% oxygen. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit
12. The following test methods shall be used (or any other method approved by EPA and the APCO): NO<sub>x</sub> (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 25A or 25B, or ARB Method 100. [District Rules 1081 and 4702, 6.4] Federally Enforceable Through Title V Permit
13. 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
14. 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
15. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> 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, 5.6, 6.5.2 and 6.5.3, 40 CFR Part 64] Federally Enforceable Through Title V Permit
16. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least 5 readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702, 5.6.9 and 6.5.7, 40 CFR Part 64] Federally Enforceable Through Title V Permit
17. If either the NO<sub>x</sub> or CO concentrations corrected to 15% O<sub>2</sub>, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate that a violation subject to enforcement action has occurred. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rule 4702, 5.6, 6.5.4, and 6.5.5, 40 CFR Part 64] Federally Enforceable Through Title V Permit
18. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR Part 64] Federally Enforceable Through Title V Permit
19. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit
20. The permittee shall comply with the record keeping and reporting requirements of 40 CFR part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit
21. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 15% O<sub>2</sub>, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702, 5.6.5 and 6.5.8, 40 CFR Part 64] 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.

22. The permittee shall maintain an engine operating log to demonstrate compliance. The log shall include the hours of operation on a calendar year basis, the type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. The log shall be updated at least at least weekly. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit
23. All records shall be maintained and retained on-site for a minimum of 5 years, and shall be made available for District inspection upon request. [District Rule 4702, 6.2.2, 40 CFR Part 64] Federally Enforceable Through Title V Permit

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** N-608-28-1

**EXPIRATION DATE:** 10/31/2009

**EQUIPMENT DESCRIPTION:**

1,680 BHP WAUKESHA MODEL L7044GSI NATURAL GAS-FIRED IC ENGINE WITH NON-SELECTIVE CATALYTIC REDUCTION (NSCR) AND AN O2 CONTROLLER. THE UNIT POWERS A NATURAL GAS COMPRESSOR (PG&E DESIGNATION K-8)

## PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. Total sulfur content of natural gas combusted shall not exceed 1.0 grain/100 scf. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
3. The permittee shall install and operate a nonresettable fuel meter and a nonresettable elapsed operating time meter. In lieu of installing a nonresettable fuel meter, the owner or operator may use a non-resettable elapsed operating time meter in conjunction with the engine manufacturer's maximum rated fuel consumption to determine annual fuel usage. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
4. The engine shall not operate more than 6,600 hours during any one calendar year. [District NSR Rule] Federally Enforceable Through Title V Permit
5. {1898} 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]
6. 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, 6.5.6] Federally Enforceable Through Title V Permit
7. 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, 6.5.9] Federally Enforceable Through Title V Permit
8. Emissions from this IC engine shall not exceed any of the following limits: 5 ppmvd NO<sub>x</sub> @ 15% O<sub>2</sub> (equivalent to 0.070 g-NO<sub>x</sub>/bhp-hr), 0.011 g-SO<sub>x</sub>/bhp-hr, 0.02 g-PM<sub>10</sub>/bhp-hr, 56 ppmvd CO @ 15% O<sub>2</sub> (equivalent to 0.475 g-CO/bhp-hr), or 25 ppmvd VOC @ 15% O<sub>2</sub> (equivalent to 0.121 g-VOC/bhp-hr). [District Rules 2201 and 4702, 5.1] Federally Enforceable Through Title V Permit
9. Source testing to measure the NO<sub>x</sub>, CO, and VOC emissions from this unit shall be conducted not less than once every 24 months. [District Rule 4702, 6.3.2.1] Federally Enforceable Through Title V Permit
10. 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 Rules 4702, 6.3.3] 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.

Facility Name: PACIFIC GAS & ELECTRIC CO.

Location: MCDONALD ISLAND COMPRESSOR STATION, HOLT, CA 95234

N-608-28-1; May 17 2011 2:20PM - SCHONKOW

11. 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, NO<sub>x</sub>, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit
12. The following test methods shall be used (or any other method approved by EPA and the APCO): NO<sub>x</sub> (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 25A or 25B, or ARB Method 100. [District Rules 1081 and 4702, 6.4] Federally Enforceable Through Title V Permit
13. 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
14. 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
15. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO<sub>2</sub>, and O<sub>2</sub> 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, 5.6, 6.5.2 and 6.5.3, 40 CFR Part 64] Federally Enforceable Through Title V Permit
16. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702, 5.6.9 and 6.5.7, 40 CFR Part 64] Federally Enforceable Through Title V Permit
17. If either the NO<sub>x</sub> or CO concentrations corrected to 15% O<sub>2</sub>, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate that a violation subject to enforcement action has occurred. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rule 4702, 5.6, 6.5.4 and 6.5.5, 40 CFR Part 64] Federally Enforceable Through Title V Permit
18. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR Part 64] Federally Enforceable Through Title V Permit
19. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit
20. The permittee shall comply with the record keeping and reporting requirements of 40 CFR part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit
21. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 15% O<sub>2</sub>, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702, 5.6.5 and 6.5.8, 40 CFR Part 64] 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.

22. The permittee shall maintain an engine operating log to demonstrate compliance. The log shall include the hours of operation on a calendar year basis, the type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. The log shall be updated at least at least weekly. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit
23. All records shall be maintained and retained on-site for a minimum of 5 years, and shall be made available for District inspection upon request. [District Rule 4702, 6.2.2, 40 CFR Part 64] Federally Enforceable Through Title V Permit

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

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: N-608-29-1

EXPIRATION DATE: 10/31/2009

## EQUIPMENT DESCRIPTION:

1,680 BHP WAUKESHA MODEL L7044GSI NATURAL GAS-FIRED IC ENGINE WITH NON-SELECTIVE CATALYTIC REDUCTION (NSCR) AND AN O2 CONTROLLER. THE UNIT POWERS A NATURAL GAS COMPRESSOR (PG&E DESIGNATION K-9)

## PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. Total sulfur content of natural gas combusted shall not exceed 1.0 grain/100 scf. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
3. The permittee shall install and operate a nonresettable fuel meter and a nonresettable elapsed operating time meter. In lieu of installing a nonresettable fuel meter, the owner or operator may use a non-resettable elapsed operating time meter in conjunction with the engine manufacturer's maximum rated fuel consumption to determine annual fuel usage. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
4. The engine shall not operate more than 6,600 hours during any one calendar year. [District NSR Rule] Federally Enforceable Through Title V Permit
5. {1898} 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]
6. 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, 6.5.6] Federally Enforceable Through Title V Permit
7. 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, 6.5.9] Federally Enforceable Through Title V Permit
8. Emissions from this IC engine shall not exceed any of the following limits: 5 ppmvd NO<sub>x</sub> @ 15% O<sub>2</sub> (equivalent to 0.070 g-NO<sub>x</sub>/bhp-hr), 0.011 g-SO<sub>x</sub>/bhp-hr, 0.02 g-PM<sub>10</sub>/bhp-hr, 56 ppmvd CO @ 15% O<sub>2</sub> (equivalent to 0.475 g-CO/bhp-hr), or 25 ppmvd VOC @ 15% O<sub>2</sub> (equivalent to 0.121 g-VOC/bhp-hr). [District Rules 2201 and 4702, 5.1] Federally Enforceable Through Title V Permit
9. NO<sub>x</sub>, CO, and VOC emissions shall be measured (source tested) not less than once every 24 months. [District Rule 4702, 6.3.2.1] Federally Enforceable Through Title V Permit
10. 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 Rules 4702, 6.3.3] 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.



11. 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, NO<sub>x</sub>, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit
12. The following test methods shall be used (or any other method approved by EPA and the APCO): NO<sub>x</sub> (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 25A or 25B, or ARB Method 100. [District Rules 1081 and 4702, 6.4] Federally Enforceable Through Title V Permit
13. 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
14. 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
15. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> 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, 5.6, 6.5.2 and 6.5.3, 40 CFR Part 64] Federally Enforceable Through Title V Permit
16. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702, 5.6.9 and 6.5.7, 40 CFR Part 64] Federally Enforceable Through Title V Permit
17. If either the NO<sub>x</sub> or CO concentrations corrected to 15% O<sub>2</sub>, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate that a violation subject to enforcement action has occurred. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rule 4702, 6.5.4, 40 CFR Part 64] Federally Enforceable Through Title V Permit
18. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR Part 64] Federally Enforceable Through Title V Permit
19. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit
20. The permittee shall comply with the record keeping and reporting requirements of 40 CFR part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit
21. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 15% O<sub>2</sub>, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702, 5.6.5 and 6.5.8, 40 CFR Part 64] Federally Enforceable Through Title V Permit

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PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

22. The permittee shall maintain an engine operating log to demonstrate compliance. The log shall include the hours of operation on a calendar year basis, the type of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. The log shall be updated at least at least weekly. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit
23. All records shall be maintained and retained on-site for a minimum of 5 years, and shall be made available for District inspection upon request. [District Rule 4702, 6.2.2, 40 CFR Part 64] Federally Enforceable Through Title V Permit

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

Facility Name: PACIFIC GAS & ELECTRIC CO.

Location: MCDONALD ISLAND COMPRESSOR STATION, HOLT, CA 95234

N-608-29-1 : May 17 2011 2:21PM - SCHONHOM

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**Appendix B**  
**Previous Title V Operating Permit**



**San Joaquin Valley**  
AIR POLLUTION CONTROL DISTRICT



# Permit to Operate

**FACILITY:** N-608 **EXPIRATION DATE:** 10/31/2009

**LEGAL OWNER OR OPERATOR:** PACIFIC GAS & ELECTRIC CO.  
**MAILING ADDRESS:** ATTN: AIR QUALITY PERMITS  
P O BOX 7640  
SAN FRANCISCO, CA 94120

**FACILITY LOCATION:** MCDONALD ISLAND COMPRESSOR STATION  
HOLT, CA 95234

**FACILITY DESCRIPTION:** NATURAL GAS DISTRIBUTION

The Facility's Permit to Operate may include Facility-wide Requirements as well as requirements that apply to specific permit units.

This Permit to Operate remains valid through the permit expiration date listed above, subject to payment of annual permit fees and compliance with permit conditions and all applicable local, state, and federal regulations. This permit is valid only at the location specified above, and becomes void upon any transfer of ownership or location. Any modification of the equipment or operation, as defined in District Rule 2201, will require prior District approval. This permit shall be posted as prescribed in District Rule 2010.

Seyed Sadredin  
Executive Director / APCO

David Warner  
Director of Permit Services

# San Joaquin Valley Air Pollution Control District

FACILITY: N-608-0-1

EXPIRATION DATE: 10/31/2009

## FACILITY-WIDE REQUIREMENTS

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1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. The owner or operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100, 6.1; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] Federally Enforceable Through Title V Permit
3. The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100, 7.0; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] Federally Enforceable Through Title V Permit
4. The owner or operator of any stationary source operation that emits more than 25 tons per year of nitrogen oxides or reactive organic compounds, shall provide the District annually with a written statement in such form and at such time as the District prescribes, showing actual emissions of nitrogen oxides and reactive organic compounds from that source. [District Rule 1160, 5.0] Federally Enforceable Through Title V Permit
5. Any person building, altering or replacing any operation, article, machine, equipment, or other contrivance, the use of which may cause the issuance of air contaminants or the use of which may eliminate, reduce, or control the issuance of air contaminants, shall first obtain an Authority to Construct (ATC) from the District unless exempted by District Rule 2020 (3/21/02). [District Rule 2010, 3.0 and 4.0; and 2020] Federally Enforceable Through Title V Permit
6. The permittee must comply with all conditions of the permit including permit revisions originated by the District. All terms and conditions of a permit that are required pursuant to the Clean Air Act (CAA), including provisions to limit potential to emit, are enforceable by the EPA and Citizens under the CAA. Any permit noncompliance constitutes a violation of the CAA and the District Rules and Regulations, and is grounds for enforcement action, for permit termination, revocation, reopening and reissuance, or modification; or for denial of a permit renewal application. [District Rules 2070, 7.0; 2080; and 2520, 9.8.1 and 9.12.1] Federally Enforceable Through Title V Permit
7. A Permit to Operate or an Authority to Construct shall not be transferred unless a new application is filed with and approved by the District. [District Rule 2031] Federally Enforceable Through Title V Permit
8. Every application for a permit required under Rule 2010 (12/17/92) shall be filed in a manner and form prescribed by the District. [District Rule 2040] Federally Enforceable Through Title V Permit
9. 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
10. The operator shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, or report. Support information includes copies of all reports required by the permit and, for continuous monitoring instrumentation, all calibration and maintenance records and all original strip-chart recordings. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: PACIFIC GAS & ELECTRIC CO.

Location: McDONALD ISLAND COMPRESSOR STATION, HOLT, CA 95234

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

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

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

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

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

37. The permittee shall submit certifications of compliance with the terms and standards contained in Title V permits, including emission limits, standards and work practices, to the District and the EPA annually (or more frequently as specified in an applicable requirement or as specified by the District). The certification shall include the identification of each permit term or condition, the compliance status, whether compliance was continuous or intermittent, the methods used for determining the compliance status, and any other facts required by the District to determine the compliance status of the source. [District Rule 2520, 9.16] Federally Enforceable Through Title V Permit
38. The permittee shall submit an application for Title V permit renewal to the District at least six months, but not greater than 18 months, prior to the permit expiration date. [District Rule 2520, 5.2] Federally Enforceable Through Title V Permit
39. When a term is not defined in a Title V permit condition, the definition in the rule cited as the origin and authority for the condition in a Title V permits shall apply. [District Rule 2520, 9.1.1] Federally Enforceable Through Title V Permit
40. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following outdated SIP requirements: Rule 401 (Madera, Fresno, Kern, Kings, San Joaquin, Stanislaus, Tulare and Merced), Rule 110 (Fresno, Stanislaus, San Joaquin), Rule 109 (Merced), Rule 113 (Madera), and Rule 111 (Kern, Tulare, Kings). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
41. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rules 1100, sections 6.1 and 7.0 (12/17/92); 2010, sections 3.0 and 4.0 (12/17/92); 2031 (12/17/92); 2040 (12/17/92); 2070, section 7.0 (12/17/92); 2080 (12/17/92); 4101 (11/15/01); 4601, sections 5.1, 5.2, 5.3, 5.8 and 8.0 (10/31/01); 8021 (11/15/01); 8031 (11/15/01); 8041 (11/15/01); 8051 (11/15/01); 8061 (11/15/01); and 8071 (11/15/01). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
42. On September 30, 2005, the initial Title V permit was issued. The reporting periods for the Report of Required Monitoring and the Compliance Certification Report are based upon this initial permit issuance date, unless alternative dates are approved by the District Compliance Division. These reports are due within 30 days after the end of the reporting period. [District Rule 2520] Federally Enforceable Through Title V Permit

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



# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** N-608-1-4

**EXPIRATION DATE:** 10/31/2009

**EQUIPMENT DESCRIPTION:**

625 BHP CATERPILLAR MODEL G-398 NATURAL GAS FIRED IC ENGINE POWERING AN EMERGENCY GENERATOR (SERIAL # 73B1022) SERVING THE TURNER CUT STATION

## PERMIT UNIT REQUIREMENTS

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1. 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, 5.1] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.0] Federally Enforceable Through Title V Permit
3. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Stanislaus County Rule 407] Federally Enforceable Through Title V Permit
4. The engine shall be fired exclusively on natural gas. [District NSR Rule] Federally Enforceable Through Title V Permit
5. The engine shall be operated only for maintenance, testing, and required regulatory purposes, and during emergency situations. Operation of the engine for maintenance and testing purposes shall not exceed 100 hours per year, as determined by an operational nonresettable elapsed operating time meter. [District NSR Rule, District Rules 4701, 4.2.1 and 4702, 3.15 & 4.2.1] Federally Enforceable Through Title V Permit
6. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements or emission control system supplier. [District Rule 4702] Federally Enforceable Through Title V Permit
7. The permittee shall monitor the operational characteristics of the engine as recommended by the engine manufacturer or emission control system supplier. [District Rule 4702] Federally Enforceable Through Title V Permit
8. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. If the engine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM method D 1072, D 3031, D 4084 or D 3246. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. If the engine is fired on natural gas but not PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
11. The permittee shall maintain records of hours of emergency and non-emergency operation. Records shall include the date, the number of hours of operation, and the purpose of the operation (e.g., load testing, weekly testing, rolling blackout, general area power outage, etc.). Such records shall be retained for a period of at least five years and made available for District inspection upon request. [District Rule 1070 and Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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

Facility Name: PACIFIC GAS & ELECTRIC CO.  
Location: MCDONALD ISLAND COMPRESSOR STATION, HOLT, CA 95234

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** N-608-2-4

**EXPIRATION DATE:** 10/31/2009

**EQUIPMENT DESCRIPTION:**

625 BHP CATERPILLAR MODEL G-398 NATURAL GAS FIRED IC ENGINE POWERING AN EMERGENCY GENERATOR (SERIAL # 73B1012) SERVING THE TURNER CUT STATION

## PERMIT UNIT REQUIREMENTS

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1. 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, 5.1] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.0] Federally Enforceable Through Title V Permit
3. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Stanislaus County Rule 407] Federally Enforceable Through Title V Permit
4. The engine shall be fired exclusively on natural gas. [District NSR Rule] Federally Enforceable Through Title V Permit
5. The engine shall be operated only for maintenance, testing, and required regulatory purposes, and during emergency situations. Operation of the engine for maintenance and testing purposes shall not exceed 100 hours per year, as determined by an operational nonresettable elapsed operating time meter. [District NSR Rule, District Rules 4701, 4.2.1 and 4702, 3.15 & 4.2.1] Federally Enforceable Through Title V Permit
6. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements or emission control system supplier. [District Rule 4702] Federally Enforceable Through Title V Permit
7. The permittee shall monitor the operational characteristics of the engine as recommended by the engine manufacturer or emission control system supplier. [District Rule 4702] Federally Enforceable Through Title V Permit
8. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. If the engine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM method D 1072, D 3031, D 4084 or D 3246. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. If the engine is fired on natural gas but not PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
11. The permittee shall maintain records of hours of emergency and non-emergency operation. Records shall include the date, the number of hours of operation, and the purpose of the operation (e.g., load testing, weekly testing, rolling blackout, general area power outage, etc.). Such records shall be retained for a period of at least five years and made available for District inspection upon request. [District Rule 1070 and Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** N-608-3-4

**EXPIRATION DATE:** 10/31/2009

**EQUIPMENT DESCRIPTION:**

625 BHP CATERPILLAR MODEL G-398 NATURAL GAS FIRED IC ENGINE POWERING AN EMERGENCY GENERATOR (SERIAL # 73B1020) SERVING THE WHISKEY SLOUGH STATION

## PERMIT UNIT REQUIREMENTS

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1. 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, 5.1] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.0] Federally Enforceable Through Title V Permit
3. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Stanislaus County Rule 407] Federally Enforceable Through Title V Permit
4. The engine shall be fired exclusively on natural gas. [District NSR Rule] Federally Enforceable Through Title V Permit
5. The engine shall be operated only for maintenance, testing, and required regulatory purposes, and during emergency situations. Operation of the engine for maintenance and testing purposes shall not exceed 100 hours per year, as determined by an operational nonresettable elapsed operating time meter. [District NSR Rule, District Rules 4701, 4.2.1 and 4702, 3.15 & 4.2.1] Federally Enforceable Through Title V Permit
6. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements or emission control system supplier. [District Rule 4702] Federally Enforceable Through Title V Permit
7. The permittee shall monitor the operational characteristics of the engine as recommended by the engine manufacturer or emission control system supplier. [District Rule 4702] Federally Enforceable Through Title V Permit
8. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. If the engine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM method D 1072, D 3031, D 4084 or D 3246. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. If the engine is fired on natural gas but not PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
11. The permittee shall maintain records of hours of emergency and non-emergency operation. Records shall include the date, the number of hours of operation, and the purpose of the operation (e.g., load testing, weekly testing, rolling blackout, general area power outage, etc.). Such records shall be retained for a period of at least five years and made available for District inspection upon request. [District Rule 1070 and Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** N-608-4-4

**EXPIRATION DATE:** 10/31/2009

**EQUIPMENT DESCRIPTION:**

625 BHP CATERPILLAR MODEL G-398 NATURAL GAS FIRED IC ENGINE POWERING AN EMERGENCY GENERATOR (SERIAL # 73B1025) SERVING THE WHISKEY SLOUGH STATION

## PERMIT UNIT REQUIREMENTS

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1. 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, 5.1] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.0] Federally Enforceable Through Title V Permit
3. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Stanislaus County Rule 407] Federally Enforceable Through Title V Permit
4. The engine shall be fired exclusively on natural gas. [District NSR Rule] Federally Enforceable Through Title V Permit
5. The engine shall be operated only for maintenance, testing, and required regulatory purposes, and during emergency situations. Operation of the engine for maintenance and testing purposes shall not exceed 100 hours per year, as determined by an operational nonresettable elapsed operating time meter. [District NSR Rule, District Rules 4701, 4.2.1 and 4702, 3.15 & 4.2.1] Federally Enforceable Through Title V Permit
6. This engine shall be operated and maintained in proper operating condition per the manufacturer's requirements or emission control system supplier. [District Rule 4702] Federally Enforceable Through Title V Permit
7. The permittee shall monitor the operational characteristics of the engine as recommended by the engine manufacturer or emission control system supplier. [District Rule 4702] Federally Enforceable Through Title V Permit
8. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
9. If the engine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM method D 1072, D 3031, D 4084 or D 3246. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. If the engine is fired on natural gas but not PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
11. The permittee shall maintain records of hours of emergency and non-emergency operation. Records shall include the date, the number of hours of operation, and the purpose of the operation (e.g., load testing, weekly testing, rolling blackout, general area power outage, etc.). Such records shall be retained for a period of at least five years and made available for District inspection upon request. [District Rule 1070 and Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** N-608-7-2

**EXPIRATION DATE:** 10/31/2009

**EQUIPMENT DESCRIPTION:**

NATURAL GAS DEHYDRATION SYSTEM (TURNER CUT STATION) AND ODORIZING SYSTEM (SHARED WITH N-608-24) INCLUDING TWO CONTACTOR TOWERS AND A 3-PHASE GAS SEPARATOR SERVED BY A 6.75 MMBTU/HR THERMAL OXIDIZER (SHARED WITH N-608-24) AND A PERMIT EXEMPT < 5 MMBTU/HR REBOILER (#1).

## PERMIT UNIT REQUIREMENTS

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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, 5.0] Federally Enforceable Through Title V Permit
3. The thermal oxidizer shall only be fired on PUC quality natural gas. [District NSR Rule] Federally Enforceable Through Title V Permit
4. The thermal oxidizer shall be equipped with an operational temperature indicator at the combustion chamber, and the temperature shall be recorded daily. [District NSR Rule and 40 CFR Part 64] Federally Enforceable Through Title V Permit
5. The thermal oxidizer shall be heated to at least 1400 degrees Fahrenheit prior to any contaminated air steam entering the oxidizer, and operate at a minimum temperature of 1400 degrees Fahrenheit. [District NSR Rule] Federally Enforceable Through Title V Permit
6. The thermal oxidizer shall operate at all times when dehydration is taking place. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Only glycol shall be used as the dehydration medium. [District NSR Rule] Federally Enforceable Through Title V Permit
8. The VOC control efficiency of the thermal oxidizer shall not be less than 97.5%. [District NSR Rule and District Rule 4408, 5.1.3] Federally Enforceable Through Title V Permit
9. NOx emissions from natural gas combustion in the thermal oxidizer shall not exceed 0.1 lb/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
10. CO emissions from natural gas combustion in the thermal oxidizer shall not exceed 0.084 lb/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
11. PM10 emissions from natural gas combustion in the thermal oxidizer shall not exceed 0.0076 lb/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
12. SOx emissions from natural gas combustion in the thermal oxidizer shall not exceed 0.00285 lb/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
13. The combined VOC emissions from dehydration units N-608-7 and N-608-24, including the combustion contaminants from the thermal oxidizer, shall not exceed 1.95 lb/hr. [District NSR Rule] 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.

14. Source testing to determine the thermal oxidizer VOC control efficiency and the combined VOC emissions from units N-608-7 and -24 shall be conducted by the end of calendar year 2004 and annually thereafter. [District Rules 1081, 7.2 and 4408, 5.1.3.2] Federally Enforceable Through Title V Permit
15. 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, 7.1] Federally Enforceable Through Title V Permit
16. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.3] Federally Enforceable Through Title V Permit
17. VOC emissions shall be measured by EPA Method 25, 25A, 25B, or 18. [District Rules 1081, 5.0 and 4408, 6.2.2.4] Federally Enforceable Through Title V Permit
18. Permittee shall maintain monthly records of the amount of gas dehydrated by dehydration units N-608-7 and -24. [District NSR Rule and District Rule 4408, 6.1.1] Federally Enforceable Through Title V Permit
19. Permittee shall maintain the following records: APCD permit number; location, size of glycol dehydrator reboiler (MMBTU/hr), and type of glycol used; description of any installed VOC control system; flow diagram of the dehydrator and any VOC controls; maintenance records of the VOC control system; reports of source tests; all records necessary to document inputs to and outputs of the GRI-GLYCalc software, if used. [District NSR Rule and District Rule 4408, 6.1.2] Federally Enforceable Through Title V Permit
20. All records shall be retained for a minimum of 5 years, and shall be made available for District inspection upon request. [District Rule 4408, 6.1.4] Federally Enforceable Through Title V Permit
21. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR Part 64] Federally Enforceable Through Title V Permit
22. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit
23. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** N-608-8-2

**EXPIRATION DATE:** 10/31/2009

**EQUIPMENT DESCRIPTION:**

ONE 1,000 GALLON ABOVEGROUND CONVAULT STORAGE TANK SERVED BY AN EBW COAXIAL PHASE I VAPOR RECOVERY SYSTEM (G-70-116-F) AND ONE FUELING POINT WITH ONE GASOLINE DISPENSING NOZZLE SERVED BY A BALANCE PHASE II VAPOR RECOVERY SYSTEM (G-70-116-F) .

## PERMIT UNIT REQUIREMENTS

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1. An Air Resources Board certified Pressure/Vacuum relief valve shall be installed on the tank vent and shall have a rated pressure relief setting of no more than 2.5 inches of water column gage. The installed Pressure/Vacuum valve shall extend to a minimum height of 12 feet above grade. [District Rule 4621, 5.1.2] Federally Enforceable Through Title V Permit
2. The vapor recovery systems and their components shall be operated and maintained in accordance with the State certification requirements. [District Rule 4621, 5.1.2] Federally Enforceable Through Title V Permit
3. The permittee shall perform and pass a Static Pressure Decay Test using BAAQMD Method ST-38 at least once every 12 months. [District Rule 4622, 5.3, & 6.3.1] Federally Enforceable Through Title V Permit
4. Records of monthly gasoline throughput shall be maintained, retained on the premises for at least five years and made available for District inspection upon request. [District Rule 4622, 6.1.1] Federally Enforceable Through Title V Permit
5. Total gasoline throughput for the facility shall not exceed either of the following: 10,000 gallons in any consecutive 30-day period or 24,000 gallons per calendar year. Records shall be maintained to demonstrate compliance with these limits. [District Rule 4622, 4.0, 4.1 & 4.2] Federally Enforceable Through Title V Permit

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

Facility Name: PACIFIC GAS & ELECTRIC CO.  
Location: MCDONALD ISLAND COMPRESSOR STATION, HOLT, CA 95234

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** N-608-13-4

**EXPIRATION DATE:** 10/31/2009

**EQUIPMENT DESCRIPTION:**

MODIFICATION OF: 267 BHP CATERPILLAR MODEL 3306-DI DIESEL FIRED EMERGENCY IC ENGINE POWERING A FIRE PUMP (SERIAL # 64Z204154).

## PERMIT UNIT REQUIREMENTS

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1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
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, 5.1] Federally Enforceable Through Title V Permit
3. 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
4. This engine shall be operated using only CARB certified diesel fuel. [17 CCR 93115] Federally Enforceable Through Title V Permit
5. This engine shall be operated only for maintenance, testing, and required regulatory purposes, and during emergency situations. For testing purposes, the engine shall only be operated the number of hours necessary to comply with the testing requirements of the National Fire Protection Association (NFPA) 25 - "Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems", 1998 edition. Total hours of operation for all maintenance, testing, and required regulatory purposes shall not exceed 100 hours per calendar year. [District Rules 4701 and 4702, and 17 CCR 93115] Federally Enforceable Through Title V Permit
6. The permittee shall maintain records of hours of emergency and non-emergency operation. Records shall include the date, the initial start-up hours, the number of hours of operation, and the purpose of the operation (e.g., load testing, weekly testing, rolling blackout, general area power outage, etc.). For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rules 4701 and 4702, and 17 CCR 93115] Federally Enforceable Through Title V Permit
7. The permittee shall maintain monthly records of the type of fuel purchased, the amount of fuel purchased, date when the fuel was purchased, signature of the permittee who received the fuel, and signature of the fuel supplier indicating that the fuel was delivered. [17 CCR 93115] Federally Enforceable Through Title V Permit
8. 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 Rules 4701 and 4702, and 17 CCR 93115] Federally Enforceable Through Title V Permit
9. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: County Rule 407 (San Joaquin). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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



# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** N-608-14-4

**EXPIRATION DATE:** 10/31/2009

**EQUIPMENT DESCRIPTION:**

MODIFICATION OF: 267 BHP CATERPILLAR MODEL 3306-DI DIESEL FIRED EMERGENCY IC ENGINE POWERING A FIRE PUMP (SERIAL # 64Z204157).

## PERMIT UNIT REQUIREMENTS

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1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
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, 5.1] Federally Enforceable Through Title V Permit
3. 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
4. This engine shall be operated using only CARB certified diesel fuel. [17 CCR 93115] Federally Enforceable Through Title V Permit
5. This engine shall be operated only for maintenance, testing, and required regulatory purposes, and during emergency situations. For testing purposes, the engine shall only be operated the number of hours necessary to comply with the testing requirements of the National Fire Protection Association (NFPA) 25 - "Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems", 1998 edition. Total hours of operation for all maintenance, testing, and required regulatory purposes shall not exceed 100 hours per calendar year. [District Rules 4701 and 4702, and 17 CCR 93115] Federally Enforceable Through Title V Permit
6. The permittee shall maintain records of hours of emergency and non-emergency operation. Records shall include the date, the initial start-up hours, the number of hours of operation, and the purpose of the operation (e.g., load testing, weekly testing, rolling blackout, general area power outage, etc.). For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rules 4701 and 4702, and 17 CCR 93115] Federally Enforceable Through Title V Permit
7. The permittee shall maintain monthly records of the type of fuel purchased, the amount of fuel purchased, date when the fuel was purchased, signature of the permittee who received the fuel, and signature of the fuel supplier indicating that the fuel was delivered. [17 CCR 93115] Federally Enforceable Through Title V Permit
8. 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 Rules 4701 and 4702, and 17 CCR 93115] Federally Enforceable Through Title V Permit
9. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: County Rule 407 (San Joaquin). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

Facility Name: PACIFIC GAS & ELECTRIC CO.  
Location: MCDONALD ISLAND COMPRESSOR STATION, HOLT, CA 95234

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** N-608-15-1

**EXPIRATION DATE:** 10/31/2009

**EQUIPMENT DESCRIPTION:**

220 BHP NATURAL GAS FIRED RICH BURN EMERGENCY IC ENGINE POWERING AN ELECTRICAL GENERATOR

## PERMIT UNIT REQUIREMENTS

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1. Operation of the engine, for other than maintenance purposes, shall be limited to emergency use. [District NSR Rule] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.0] Federally Enforceable Through Title V Permit
3. Operation of the engine for maintenance and testing purposes shall not exceed 82 hours per year. Should nonemergency operation exceed 82 hours in any one year then current Best Available Control Technology may be required. [District NSR Rule, District Rules 4701, 4.2.1 and 4702, 3.15 & 4.2.1] Federally Enforceable Through Title V Permit
4. The engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90% control efficiency. [District NSR Rule] Federally Enforceable Through Title V Permit
5. 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, 5.1] Federally Enforceable Through Title V Permit
6. The engine shall burn only PUC regulated natural gas as fuel. [District NSR Rule] Federally Enforceable Through Title V Permit
7. The permittee shall maintain records of hours of emergency and non-emergency operation. Records shall include the date, the number of hours of operation, and the purpose of the operation (e.g., load testing, weekly testing, rolling blackout, general area power outage, etc.). Such records shall be retained for a period of at least five years and made available for District inspection upon request. [District NSR Rule, District Rules 1070 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

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

Facility Name: PACIFIC GAS & ELECTRIC CO.

Location: MCDONALD ISLAND COMPRESSOR STATION, HOLT, CA 95234

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** N-608-16-2

**EXPIRATION DATE:** 10/31/2009

**EQUIPMENT DESCRIPTION:**

ONE 3,500 GALLON ABOVEGROUND METHANOL STORAGE TANK (TURNER CUT STATION)

## PERMIT UNIT REQUIREMENTS

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1. The tank shall be in a leak-free condition, except as allowed in Section 5.2 and Table 3 of this rule. [District Rule 4623, 5.1.3] Federally Enforceable Through Title V Permit
2. This tank shall be equipped with a pressure-vacuum (PV) relief valve set to within 10% of the maximum allowable working pressure of the tank. The PV relief valve shall be permanently labeled with the operating pressure settings, properly maintained in good operating order in accordance with the manufacturer's instructions, and shall remain in leak-free condition except when the operating pressure exceeds the valve's set pressure. [District Rule 4623, 5.2] Federally Enforceable Through Title V Permit
3. The permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. In lieu of testing each uncontrolled fixed roof tank, the permittee may conduct TVP testing of a representative tank provided the requirements of Sections 6.2.1.1.1 through 6.2.1.1.5 are met. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
4. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
5. The true vapor pressure (TVP) shall be measured using Reid vapor pressure ASTM Method D323, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulations for AB 2588", dated August 1989. [District Rule 4623, 6.4.3] Federally Enforceable Through Title V Permit
6. The permittee shall submit the records of TVP to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. As used in this permit, the term "source or type" shall mean liquids with similar characteristics. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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

Facility Name: PACIFIC GAS & ELECTRIC CO.  
Location: MCDONALD ISLAND COMPRESSOR STATION, HOLT, CA 95234

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** N-608-17-2

**EXPIRATION DATE:** 10/31/2009

**EQUIPMENT DESCRIPTION:**

ONE 3,500 GALLON ABOVEGROUND METHANOL STORAGE TANK (WHISKY SLOUGH STATION)

## PERMIT UNIT REQUIREMENTS

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1. The tank shall be in a leak-free condition, except as allowed in Section 5.2 and Table 3 of this rule. [District Rule 4623, 5.1.3] Federally Enforceable Through Title V Permit
2. This tank shall be equipped with a pressure-vacuum (PV) relief valve set to within 10% of the maximum allowable working pressure of the tank. The PV relief valve shall be permanently labeled with the operating pressure settings, properly maintained in good operating order in accordance with the manufacturer's instructions, and shall remain in leak-free condition except when the operating pressure exceeds the valve's set pressure. [District Rule 4623, 5.2] Federally Enforceable Through Title V Permit
3. The permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank. In lieu of testing each uncontrolled fixed roof tank, the permittee may conduct TVP testing of a representative tank provided the requirements of Sections 6.2.1.1.1 through 6.2.1.1.5 are met. [District Rule 4623, 6.2.2] Federally Enforceable Through Title V Permit
4. The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
5. The true vapor pressure (TVP) shall be measured using Reid vapor pressure ASTM Method D323, and converting the RVP to TVP at the tank's maximum organic liquid storage temperature. The conversion of RVP to TVP shall be done in accordance with the oil and gas section of "California Air Resources Boards (ARB) Technical Guidance Document to the Criteria and Guidelines Regulations for AB 2588", dated August 1989. [District Rule 4623, 6.4.3] Federally Enforceable Through Title V Permit
6. The permittee shall submit the records of TVP to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
7. As used in this permit, the term "source or type" shall mean liquids with similar characteristics. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** N-608-18-2

**EXPIRATION DATE:** 10/31/2009

**EQUIPMENT DESCRIPTION:**

1,500 BHP WAUKESHA MODEL 9390 GL LEAN BURN NATURAL GAS FIRED IC ENGINE POWERING A NATURAL GAS COMPRESSOR (PG&E DESIGNATION K-3).

## PERMIT UNIT REQUIREMENTS

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1. 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, 5.1] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.0] Federally Enforceable Through Title V Permit
3. The permittee shall install and operate a nonresettable fuel meter and a nonresettable elapsed operating time meter. In lieu of installing a nonresettable fuel meter, the owner or operator may use a non-resettable elapsed operating time meter in conjunction with the engine manufacturer's maximum rated fuel consumption to determine annual fuel usage. [District NSR Rule and District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
4. 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, 6.5.5] Federally Enforceable Through Title V Permit
5. 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, 6.5.1] Federally Enforceable Through Title V Permit
6. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Stanislaus County Rule 407] Federally Enforceable Through Title V Permit
7. The NOx emission concentration shall not exceed 0.9 g/bhp-hr. [District NSR Rule] Federally Enforceable Through Title V Permit
8. The CO emission concentration shall not exceed 3.0 g/bhp-hr. [District NSR Rule] Federally Enforceable Through Title V Permit
9. The VOC emission concentration, as methane, shall not exceed 0.9 g/bhp-hr. [District NSR Rule] Federally Enforceable Through Title V Permit
10. The SOx emission concentration shall not exceed 0.002 g/bhp-hr. [District NSR Rule] Federally Enforceable Through Title V Permit
11. The PM10 emission concentration shall not exceed 0.1 g/bhp-hr. [District NSR Rule] Federally Enforceable Through Title V Permit
12. The engine shall not operate more than 6,600 hours during any one calendar year. [District NSR Rule] 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.

13. The engine shall not operate for more than 1,104 hours during the first calendar quarter, nor more than 1,104 hours during the fourth calendar quarter. Either limit may be increased by one hour for each entire hour that the engine does not operate during the second or third calendar quarters. [District NSR Rule] Federally Enforceable Through Title V Permit
14. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
15. If the engine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM method D 1072, D 3031, D 4084 or D 3246. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
16. If the engine is fired on natural gas but not PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
17. Source testing to measure natural gas-combustion NO<sub>x</sub>, CO, and VOC emissions from this unit shall be measured not less than once every 24 months. [District Rules 4701, 6.3.1 and 4702, 6.3] 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 Rules 4701, 6.3.2 and 4702, 6.3] Federally Enforceable Through Title V Permit
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, NO<sub>x</sub>, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rules 4701, 6.3.2 and 4702, 6.3] Federally Enforceable Through Title V Permit
20. The following test methods shall be used: NO<sub>x</sub> (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 25A or 25B, or ARB Method 100. [District Rules 1081, 5.0; 4701, 6.4 and 4702, 6.4] 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, 7.1] Federally Enforceable Through Title V Permit
22. The results of each source test shall be submitted to the District within sixty days thereafter. [District Rule 1081, 7.3] Federally Enforceable Through Title V Permit
23. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081, 3.0] Federally Enforceable Through Title V Permit
24. The ignition timing shall be checked, and if necessary, adjusted to within the manufacturer's specification at least once every 720 operating hours. [District Rules 4701, 5.4.2 and 4702, 6.5.2] Federally Enforceable Through Title V Permit
25. The valve clearances shall be checked, and if necessary, adjusted to within the manufacturer's specification at least once every three calendar months. [District Rules 4701, 5.4.2 and 4702, 6.5.5] Federally Enforceable Through Title V Permit
26. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> at least once every quarter (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 Rules 4701, 5.4.3 and 4702, 5.6.9] 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.

Facility Name: PACIFIC GAS & ELECTRIC CO.

Location: MCDONALD ISLAND COMPRESSOR STATION, HOLT, CA 95234

27. The acceptable exhaust gas O<sub>2</sub> range shall be established from manufacture's information, or by source testing this unit. [District Rules 4701, 6.3 and 4702, 5.6.1] Federally Enforceable Through Title V Permit
28. If either the NO<sub>x</sub> or CO concentrations corrected to 15% O<sub>2</sub>, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4701, 6.3 and 4702, 6.5.4] Federally Enforceable Through Title V Permit
29. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4701, 5.4.3 and 4702, 5.6.9] Federally Enforceable Through Title V Permit
30. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 15% O<sub>2</sub>, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4701, 6.2 and 4702, 6.5.7] Federally Enforceable Through Title V Permit
31. Annual and quarterly records of the cumulative hours of operation shall be kept and shall be updated at least weekly. [District NSR Rule] Federally Enforceable Through Title V Permit
32. The permittee shall maintain records of the dates the ignition timing and valve clearances were checked. The permittee shall also maintain records of the manufacturer's recommended ignition timing and valve clearances. [District Rules 4701, 4.2.1 and 4702, 6.2] Federally Enforceable Through Title V Permit
33. If records indicate that the ignition timing or valve clearances have not been checked within the time frames listed, the District may require the permittee to conduct a source test using EPA approved methods to verify compliance with emission limits. [District Rules 4701, 4.2.1 and 4702, 6.2] Federally Enforceable Through Title V Permit
34. 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 Rules 4701, 6.2.1 and 4702, 6.2] Federally Enforceable Through Title V Permit
35. 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, 6.5.8] Federally Enforceable Through Title V Permit
36. 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 Rules 4701, 6.2.3 and 4702, 6.2.2] Federally Enforceable Through Title V Permit

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** N-608-19-2

**EXPIRATION DATE:** 10/31/2009

**EQUIPMENT DESCRIPTION:**

1,500 BHP WAUKESHA MODEL 9390 GL LEAN BURN NATURAL GAS FIRED IC ENGINE POWERING A NATURAL GAS COMPRESSOR (PG&E DESIGNATION K-4).

## PERMIT UNIT REQUIREMENTS

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1. 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, 5.1] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.0] Federally Enforceable Through Title V Permit
3. The permittee shall install and operate a nonresettable fuel meter and a nonresettable elapsed operating time meter. In lieu of installing a nonresettable fuel meter, the owner or operator may use a non-resettable elapsed operating time meter in conjunction with the engine manufacturer's maximum rated fuel consumption to determine annual fuel usage. [District NSR Rule and District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
4. 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, 6.5.5] Federally Enforceable Through Title V Permit
5. 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, 6.5.1] Federally Enforceable Through Title V Permit
6. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Stanislaus County Rule 407] Federally Enforceable Through Title V Permit
7. The NOx emission concentration shall not exceed 0.9 g/bhp-hr. [District NSR Rule] Federally Enforceable Through Title V Permit
8. The CO emission concentration shall not exceed 3.0 g/bhp-hr. [District NSR Rule] Federally Enforceable Through Title V Permit
9. The VOC emission concentration, as methane, shall not exceed 0.9 g/bhp-hr. [District NSR Rule] Federally Enforceable Through Title V Permit
10. The SOx emission concentration shall not exceed 0.002 g/bhp-hr. [District NSR Rule] Federally Enforceable Through Title V Permit
11. The PM10 emission concentration shall not exceed 0.1 g/bhp-hr. [District NSR Rule] Federally Enforceable Through Title V Permit
12. The engine shall not operate more than 6,600 hours during any one calendar year. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
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13. The engine shall not operate for more than 1,104 hours during the first calendar quarter, nor more than 1,104 hours during the fourth calendar quarter. Either limit may be increased by one hour for each entire hour that the engine does not operate during the second or third calendar quarters. [District NSR Rule] Federally Enforceable Through Title V Permit
14. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
15. If the engine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM method D 1072, D 3031, D 4084 or D 3246. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
16. If the engine is fired on natural gas but not PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
17. Source testing to measure natural gas-combustion NO<sub>x</sub>, CO, and VOC emissions from this unit shall be measured not less than once every 24 months. [District Rules 4701, 6.3.1 and 4702, 6.3] 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 Rules 4701, 6.3.2 and 4702, 6.3] Federally Enforceable Through Title V Permit
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, NO<sub>x</sub>, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rules 4701, 6.3.2 and 4702, 6.3] Federally Enforceable Through Title V Permit
20. The following test methods shall be used: NO<sub>x</sub> (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 25A or 25B, or ARB Method 100. [District Rules 1081, 5.0; 4701, 6.4 and 4702, 6.4] 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, 7.1] Federally Enforceable Through Title V Permit
22. The results of each source test shall be submitted to the District within sixty days thereafter. [District Rule 1081, 7.3] Federally Enforceable Through Title V Permit
23. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081, 3.0] Federally Enforceable Through Title V Permit
24. The ignition timing shall be checked, and if necessary, adjusted to within the manufacturer's specification at least once every 720 operating hours. [District Rules 4701, 5.4.2 and 4702, 6.5.2] Federally Enforceable Through Title V Permit
25. The valve clearances shall be checked, and if necessary, adjusted to within the manufacturer's specification at least once every three calendar months. [District Rules 4701, 5.4.2 and 4702, 6.5.5] Federally Enforceable Through Title V Permit
26. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> at least once every quarter (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 Rules 4701, 5.4.3 and 4702, 5.6.9] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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27. The acceptable exhaust gas O<sub>2</sub> range shall be established from manufacture's information, or by source testing this unit. [District Rules 4701, 6.3 and 4702, 5.6.1] Federally Enforceable Through Title V Permit
28. If either the NO<sub>x</sub> or CO concentrations corrected to 15% O<sub>2</sub>, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4701, 6.3 and 4702, 6.5.4] Federally Enforceable Through Title V Permit
29. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4701, 5.4.3 and 4702, 5.6.9] Federally Enforceable Through Title V Permit
30. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 15% O<sub>2</sub>, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4701, 6.2 and 4702, 6.5.7] Federally Enforceable Through Title V Permit
31. Annual and quarterly records of the cumulative hours of operation shall be kept and shall be updated at least weekly. [District NSR Rule] Federally Enforceable Through Title V Permit
32. The permittee shall maintain records of the dates the ignition timing and valve clearances were checked. The permittee shall also maintain records of the manufacturer's recommended ignition timing and valve clearances. [District Rules 4701, 4.2.1 and 4702, 6.2] Federally Enforceable Through Title V Permit
33. If records indicate that the ignition timing or valve clearances have not been checked within the time frames listed, the District may require the permittee to conduct a source test using EPA approved methods to verify compliance with emission limits. [District Rules 4701, 4.2.1 and 4702, 6.2] Federally Enforceable Through Title V Permit
34. 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 Rules 4701, 6.2.1 and 4702, 6.2] Federally Enforceable Through Title V Permit
35. 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, 6.5.8] Federally Enforceable Through Title V Permit
36. 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 Rules 4701, 6.2.3 and 4702, 6.2.2] Federally Enforceable Through Title V Permit

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** N-608-20-2

**EXPIRATION DATE:** 10/31/2009

**EQUIPMENT DESCRIPTION:**

1,150 BHP WAUKESHA MODEL 7042 GL LEAN BURN NATURAL GAS FIRED IC ENGINE POWERING A NATURAL GAS COMPRESSOR (PG&E DESIGNATION K-5).

## PERMIT UNIT REQUIREMENTS

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1. 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, 5.1] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.0] Federally Enforceable Through Title V Permit
3. The permittee shall install and operate a nonresettable fuel meter and a nonresettable elapsed operating time meter. In lieu of installing a nonresettable fuel meter, the owner or operator may use a non-resettable elapsed operating time meter in conjunction with the engine manufacturer's maximum rated fuel consumption to determine annual fuel usage. [District NSR Rule and District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
4. 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, 6.5.5] Federally Enforceable Through Title V Permit
5. 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, 6.5.1] Federally Enforceable Through Title V Permit
6. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Stanislaus County Rule 407] Federally Enforceable Through Title V Permit
7. The NOx emission concentration shall not exceed 0.9 g/bhp-hr. [District NSR Rule] Federally Enforceable Through Title V Permit
8. The CO emission concentration shall not exceed 3.0 g/bhp-hr. [District NSR Rule] Federally Enforceable Through Title V Permit
9. The VOC emission concentration, as methane, shall not exceed 0.9 g/bhp-hr. [District NSR Rule] Federally Enforceable Through Title V Permit
10. The SOx emission concentration shall not exceed 0.002 g/bhp-hr. [District NSR Rule] Federally Enforceable Through Title V Permit
11. The PM10 emission concentration shall not exceed 0.1 g/bhp-hr. [District NSR Rule] Federally Enforceable Through Title V Permit
12. The engine shall not operate more than 6,600 hours during any one calendar year. [District NSR Rule] 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.

13. The engine shall not operate for more than 1,104 hours during the first calendar quarter, nor more than 1,104 hours during the fourth calendar quarter. Either limit may be increased by one hour for each entire hour that the engine does not operate during the second or third calendar quarters. [District NSR Rule] Federally Enforceable Through Title V Permit
14. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
15. If the engine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the IC engine shall be determined using ASTM method D 1072, D 3031, D 4084 or D 3246. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
16. If the engine is fired on natural gas but not PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
17. Source testing to measure natural gas-combustion NO<sub>x</sub>, CO, and VOC emissions from this unit shall be measured not less than once every 24 months. [District Rules 4701, 6.3.1 and 4702, 6.3] 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 Rules 4701, 6.3.2 and 4702, 6.3] Federally Enforceable Through Title V Permit
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, NO<sub>x</sub>, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rules 4701, 6.3.2 and 4702, 6.3] Federally Enforceable Through Title V Permit
20. The following test methods shall be used: NO<sub>x</sub> (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 25A or 25B, or ARB Method 100. [District Rules 1081, 5.0; 4701, 6.4 and 4702, 6.4] 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, 7.1] Federally Enforceable Through Title V Permit
22. The results of each source test shall be submitted to the District within sixty days thereafter. [District Rule 1081, 7.3] Federally Enforceable Through Title V Permit
23. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081, 3.0] Federally Enforceable Through Title V Permit
24. The ignition timing shall be checked, and if necessary, adjusted to within the manufacturer's specification at least once every 720 operating hours. [District Rules 4701, 5.4.2 and 4702, 6.5.2] Federally Enforceable Through Title V Permit
25. The valve clearances shall be checked, and if necessary, adjusted to within the manufacturer's specification at least once every three calendar months. [District Rules 4701, 5.4.2 and 4702, 6.5.5] Federally Enforceable Through Title V Permit
26. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> at least once every quarter (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 Rules 4701, 5.4.3 and 4702, 5.6.9] 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.

27. The acceptable exhaust gas O<sub>2</sub> range shall be established from manufacturer's information, or by source testing this unit. [District Rules 4701, 6.3 and 4702, 5.6.1] Federally Enforceable Through Title V Permit
28. If either the NO<sub>x</sub> or CO concentrations corrected to 15% O<sub>2</sub>, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4701, 6.3 and 4702, 6.5.4] Federally Enforceable Through Title V Permit
29. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4701, 5.4.3 and 4702, 5.6.9] Federally Enforceable Through Title V Permit
30. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 15% O<sub>2</sub>, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4701, 6.2 and 4702, 6.5.7] Federally Enforceable Through Title V Permit
31. Annual and quarterly records of the cumulative hours of operation shall be kept and shall be updated at least weekly. [District NSR Rule] Federally Enforceable Through Title V Permit
32. The permittee shall maintain records of the dates the ignition timing and valve clearances were checked. The permittee shall also maintain records of the manufacturer's recommended ignition timing and valve clearances. [District Rules 4701, 4.2.1 and 4702, 6.2] Federally Enforceable Through Title V Permit
33. If records indicate that the ignition timing or valve clearances have not been checked within the time frames listed, the District may require the permittee to conduct a source test using EPA approved methods to verify compliance with emission limits. [District Rules 4701, 4.2.1 and 4702, 6.2] Federally Enforceable Through Title V Permit
34. 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 Rules 4701, 6.2.1 and 4702, 6.2] Federally Enforceable Through Title V Permit
35. 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, 6.5.8] Federally Enforceable Through Title V Permit
36. 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 Rules 4701, 6.2.3 and 4702, 6.2.2] Federally Enforceable Through Title V Permit

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** N-608-21-2

**EXPIRATION DATE:** 10/31/2009

**EQUIPMENT DESCRIPTION:**

1,150 BHP WAUKESHA MODEL 7042 GL LEAN BURN NATURAL GAS FIRED IC ENGINE POWERING A NATURAL GAS COMPRESSOR (PG&E DESIGNATION K-6).

## PERMIT UNIT REQUIREMENTS

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1. 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, 5.1] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.0] Federally Enforceable Through Title V Permit
3. The permittee shall install and operate a nonresettable fuel meter and a nonresettable elapsed operating time meter. In lieu of installing a nonresettable fuel meter, the owner or operator may use a non-resettable elapsed operating time meter in conjunction with the engine manufacturer's maximum rated fuel consumption to determine annual fuel usage. [District NSR Rule and District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
4. 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, 6.5.5] Federally Enforceable Through Title V Permit
5. 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, 6.5.1] Federally Enforceable Through Title V Permit
6. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [Stanislaus County Rule 407] Federally Enforceable Through Title V Permit
7. The NO<sub>x</sub> emission concentration shall not exceed 0.9 g/bhp-hr. [District NSR Rule] Federally Enforceable Through Title V Permit
8. The CO emission concentration shall not exceed 3.0 g/bhp-hr. [District NSR Rule] Federally Enforceable Through Title V Permit
9. The VOC emission concentration, as methane, shall not exceed 0.9 g/bhp-hr. [District NSR Rule] Federally Enforceable Through Title V Permit
10. The SO<sub>x</sub> emission concentration shall not exceed 0.002 g/bhp-hr. [District NSR Rule] Federally Enforceable Through Title V Permit
11. The PM<sub>10</sub> emission concentration shall not exceed 0.1 g/bhp-hr. [District NSR Rule] Federally Enforceable Through Title V Permit
12. The engine shall not operate more than 6,600 hours during any one calendar year. [District NSR Rule] 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.

13. The engine shall not operate for more than 1,104 hours during the first calendar quarter, nor more than 1,104 hours during the fourth calendar quarter. Either limit may be increased by one hour for each entire hour that the engine does not operate during the second or third calendar quarters. [District NSR Rule] Federally Enforceable Through Title V Permit
14. If the IC engine is fired on PUC-regulated natural gas, then maintain on file copies of all natural gas bills. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
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17. Source testing to measure natural gas-combustion NO<sub>x</sub>, CO, and VOC emissions from this unit shall be measured not less than once every 24 months. [District Rules 4701, 6.3.1 and 4702, 6.3] Federally Enforceable Through Title V Permit
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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, NO<sub>x</sub>, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rules 4701, 6.3.2 and 4702, 6.3] Federally Enforceable Through Title V Permit
20. The following test methods shall be used: NO<sub>x</sub> (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 25A or 25B, or ARB Method 100. [District Rules 1081, 5.0; 4701, 6.4 and 4702, 6.4] 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, 7.1] Federally Enforceable Through Title V Permit
22. The results of each source test shall be submitted to the District within sixty days thereafter. [District Rule 1081, 7.3] Federally Enforceable Through Title V Permit
23. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081, 3.0] Federally Enforceable Through Title V Permit
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25. The valve clearances shall be checked, and if necessary, adjusted to within the manufacturer's specification at least once every three calendar months. [District Rules 4701, 5.4.2 and 4702, 6.5.5] Federally Enforceable Through Title V Permit
26. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> at least once every quarter (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 Rules 4701, 5.4.3 and 4702, 5.6.9] 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.

27. The acceptable exhaust gas O<sub>2</sub> range shall be established from manufacture's information, or by source testing this unit. [District Rules 4701, 6.3 and 4702, 5.6.1] Federally Enforceable Through Title V Permit
28. If either the NO<sub>x</sub> or CO concentrations corrected to 15% O<sub>2</sub>, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4701, 6.3 and 4702, 6.5.4] Federally Enforceable Through Title V Permit
29. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4701, 5.4.3 and 4702, 5.6.9] Federally Enforceable Through Title V Permit
30. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 15% O<sub>2</sub>, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4701, 6.2 and 4702, 6.5.7] Federally Enforceable Through Title V Permit
31. Annual and quarterly records of the cumulative hours of operation shall be kept and shall be updated at least weekly. [District NSR Rule] Federally Enforceable Through Title V Permit
32. The permittee shall maintain records of the dates the ignition timing and valve clearances were checked. The permittee shall also maintain records of the manufacturer's recommended ignition timing and valve clearances. [District Rules 4701, 4.2.1 and 4702, 6.2] Federally Enforceable Through Title V Permit
33. If records indicate that the ignition timing or valve clearances have not been checked within the time frames listed, the District may require the permittee to conduct a source test using EPA approved methods to verify compliance with emission limits. [District Rules 4701, 4.2.1 and 4702, 6.2] Federally Enforceable Through Title V Permit
34. 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 Rules 4701, 6.2.1 and 4702, 6.2] Federally Enforceable Through Title V Permit
35. 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, 6.5.8] Federally Enforceable Through Title V Permit
36. 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 Rules 4701, 6.2.3 and 4702, 6.2.2] Federally Enforceable Through Title V Permit

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



# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** N-608-24-2

**EXPIRATION DATE:** 10/31/2009

**EQUIPMENT DESCRIPTION:**

NATURAL GAS DEHYDRATION SYSTEM (TURNER CUT STATION) AND ODORIZING SYSTEM (SHARED WITH N-608-7) INCLUDING TWO CONTACTOR TOWERS AND A 3-PHASE GAS SEPARATOR SERVED BY A 6.75 MMBTU/HR THERMAL OXIDIZER (SHARED WITH N-608-7) AND A PERMIT EXEMPT < 5 MMBTU/HR REBOILER (#2)

## PERMIT UNIT REQUIREMENTS

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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, 5.0] Federally Enforceable Through Title V Permit
3. The thermal oxidizer shall only be fired on PUC quality natural gas. [District NSR Rule] Federally Enforceable Through Title V Permit
4. The thermal oxidizer shall be equipped with an operational temperature indicator at the combustion chamber, and the temperature shall be recorded daily. [District NSR Rule and 40 CFR Part 64] Federally Enforceable Through Title V Permit
5. The thermal oxidizer shall be heated to at least 1400 degrees Fahrenheit prior to any contaminated air steam entering the oxidizer, and operate at a minimum temperature of 1400 degrees Fahrenheit. [District NSR Rule] Federally Enforceable Through Title V Permit
6. The thermal oxidizer shall operate at all times when dehydration is taking place. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Only glycol shall be used as the dehydration medium. [District NSR Rule] Federally Enforceable Through Title V Permit
8. The VOC control efficiency of the thermal oxidizer shall not be less than 97.5%. [District NSR Rule and District Rule 4408, 5.1.3] Federally Enforceable Through Title V Permit
9. NOx emissions from natural gas combustion in the thermal oxidizer shall not exceed 0.1 lb/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
10. CO emissions from natural gas combustion in the thermal oxidizer shall not exceed 0.084 lb/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
11. PM10 emissions from natural gas combustion in the thermal oxidizer shall not exceed 0.0076 lb/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
12. SOx emissions from natural gas combustion in the thermal oxidizer shall not exceed 0.00285 lb/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
13. The combined VOC emissions from dehydration units N-608-7 and N-608-24, including the combustion contaminants from the thermal oxidizer, shall not exceed 1.95 lb/hr. [District NSR Rule] 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.

14. Source testing to determine the thermal oxidizer VOC control efficiency and the combined VOC emissions from units N-608-7 and -24 shall be conducted by the end of calendar year 2004 and annually thereafter. [District Rules 1081, 7.2 and 4408, 5.1.3.2] Federally Enforceable Through Title V Permit
15. 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, 7.1] Federally Enforceable Through Title V Permit
16. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.3] Federally Enforceable Through Title V Permit
17. VOC emissions shall be measured by EPA Method 25, 25A, 25B, or 18. [District Rules 1081, 5.0 and 4408, 6.2.2.4] Federally Enforceable Through Title V Permit
18. Permittee shall maintain monthly records of the amount of gas dehydrated by dehydration units N-608-7 and -24. [District NSR Rule and District Rule 4408, 6.1.1] Federally Enforceable Through Title V Permit
19. Permittee shall maintain the following records: APCD permit number; location, size of glycol dehydrator reboiler (MMBTU/hr), and type of glycol used; description of any installed VOC control system; flow diagram of the dehydrator and any VOC controls; maintenance records of the VOC control system; reports of source tests; all records necessary to document inputs to and outputs of the GRI-GLYCalc software, if used. [District NSR Rule and District Rule 4408, 6.1.2] Federally Enforceable Through Title V Permit
20. All records shall be retained for a minimum of 5 years, and shall be made available for District inspection upon request. [District Rule 4408, 6.1.4] Federally Enforceable Through Title V Permit
21. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR Part 64] Federally Enforceable Through Title V Permit
22. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit
23. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** N-608-25-2

**EXPIRATION DATE:** 10/31/2009

**EQUIPMENT DESCRIPTION:**

NATURAL GAS DEHYDRATION SYSTEM (WHISKEY SLOUGH STATION) AND ODORIZING SYSTEM (SHARED WITH N-608-26) INCLUDING TWO CONTACTOR TOWERS AND A 3-PHASE GAS SEPARATOR SERVED BY A 6.75 MMBTU/HR THERMAL OXIDIZER (SHARED WITH N-608-26) AND A PERMIT EXEMPT < 5 MMBTU/HR REBOILER (#3)

## PERMIT UNIT REQUIREMENTS

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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, 5.0] Federally Enforceable Through Title V Permit
3. The thermal oxidizer shall only be fired on PUC quality natural gas. [District NSR Rule] Federally Enforceable Through Title V Permit
4. The thermal oxidizer shall be equipped with an operational temperature indicator at the combustion chamber, and the temperature shall be recorded daily. [District NSR Rule and 40 CFR Part 64] Federally Enforceable Through Title V Permit
5. The thermal oxidizer shall be heated to at least 1400 degrees Fahrenheit prior to any contaminated air steam entering the oxidizer, and operate at a minimum temperature of 1400 degrees Fahrenheit. [District NSR Rule] Federally Enforceable Through Title V Permit
6. The thermal oxidizer shall operate at all times when dehydration is taking place. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Only glycol shall be used as the dehydration medium. [District NSR Rule] Federally Enforceable Through Title V Permit
8. The VOC control efficiency of the thermal oxidizer shall not be less than 97.5%. [District NSR Rule and District Rule 4408, 5.1.3] Federally Enforceable Through Title V Permit
9. NOx emissions from natural gas combustion in the thermal oxidizer shall not exceed 0.1 lb/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
10. CO emissions from natural gas combustion in the thermal oxidizer shall not exceed 0.084 lb/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
11. PM10 emissions from natural gas combustion in the thermal oxidizer shall not exceed 0.0076 lb/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
12. SOx emissions from natural gas combustion in the thermal oxidizer shall not exceed 0.00285 lb/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
13. The combined VOC emissions from dehydration units N-608-25 and N-608-26, including the combustion contaminants from the thermal oxidizer, shall not exceed 1.95 lb/hr. [District NSR Rule] 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.

14. Source testing to determine the thermal oxidizer VOC control efficiency and the combined VOC emissions from units N-608-25 and -26 shall be conducted by the end of calendar year 2004 and annually thereafter. [District Rules 1081, 7.2 and 4408, 5.1.3.2] Federally Enforceable Through Title V Permit
15. 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, 7.1] Federally Enforceable Through Title V Permit
16. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.3] Federally Enforceable Through Title V Permit
17. VOC emissions shall be measured by EPA Method 25, 25A, 25B, or 18. [District Rules 1081, 5.0 and 4408, 6.2.2.4] Federally Enforceable Through Title V Permit
18. Permittee shall maintain monthly records of the amount of gas dehydrated by dehydration units N-608-25 and -26. [District NSR Rule and District Rule 4408, 6.1.1] Federally Enforceable Through Title V Permit
19. Permittee shall maintain the following records: APCD permit number; location, size of glycol dehydrator reboiler (MMBTU/hr), and type of glycol used; description of any installed VOC control system; flow diagram of the dehydrator and any VOC controls; maintenance records of the VOC control system; reports of source tests; all records necessary to document inputs to and outputs of the GRI-GLYCalc software, if used. [District NSR Rule and District Rule 4408, 6.1.2] Federally Enforceable Through Title V Permit
20. All records shall be retained for a minimum of 5 years, and shall be made available for District inspection upon request. [District Rule 4408, 6.1.4] Federally Enforceable Through Title V Permit
21. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR Part 64] Federally Enforceable Through Title V Permit
22. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit
23. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** N-608-26-2

**EXPIRATION DATE:** 10/31/2009

**EQUIPMENT DESCRIPTION:**

NATURAL GAS DEHYDRATION SYSTEM (WHISKEY SLOUGH STATION) AND ODORIZING SYSTEM (SHARED WITH N-608-25) INCLUDING TWO CONTACTOR TOWERS AND A 3-PHASE GAS SEPARATOR SERVED BY A 6.75 MMBTU/HR THERMAL OXIDIZER (SHARED WITH N-608-25) AND A PERMIT EXEMPT < 5 MMBTU/HR REBOILER (#4)

## PERMIT UNIT REQUIREMENTS

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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, 5.0] Federally Enforceable Through Title V Permit
3. The thermal oxidizer shall only be fired on PUC quality natural gas. [District NSR Rule] Federally Enforceable Through Title V Permit
4. The thermal oxidizer shall be equipped with an operational temperature indicator at the combustion chamber, and the temperature shall be recorded daily. [District NSR Rule and 40 CFR Part 64] Federally Enforceable Through Title V Permit
5. The thermal oxidizer shall be heated to at least 1400 degrees Fahrenheit prior to any contaminated air steam entering the oxidizer, and operate at a minimum temperature of 1400 degrees Fahrenheit. [District NSR Rule] Federally Enforceable Through Title V Permit
6. The thermal oxidizer shall operate at all times when dehydration is taking place. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Only glycol shall be used as the dehydration medium. [District NSR Rule] Federally Enforceable Through Title V Permit
8. The VOC control efficiency of the thermal oxidizer shall not be less than 97.5%. [District NSR Rule and District Rule 4408, 5.1.3] Federally Enforceable Through Title V Permit
9. NOx emissions from natural gas combustion in the thermal oxidizer shall not exceed 0.1 lb/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
10. CO emissions from natural gas combustion in the thermal oxidizer shall not exceed 0.084 lb/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
11. PM10 emissions from natural gas combustion in the thermal oxidizer shall not exceed 0.0076 lb/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
12. SOx emissions from natural gas combustion in the thermal oxidizer shall not exceed 0.00285 lb/MMBtu. [District NSR Rule] Federally Enforceable Through Title V Permit
13. The combined VOC emissions from dehydration units N-608-25 and N-608-26, including the combustion contaminants from the thermal oxidizer, shall not exceed 1.95 lb/hr. [District NSR Rule] 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.

Facility Name: PACIFIC GAS & ELECTRIC CO.

Location: MCDONALD ISLAND COMPRESSOR STATION, HOLT, CA 95234

14. Source testing to determine the thermal oxidizer VOC control efficiency and the combined VOC emissions from units N-608-25 and -26 shall be conducted by the end of calendar year 2004 and annually thereafter. [District Rules 1081, 7.2 and 4408, 5.1.3.2] Federally Enforceable Through Title V Permit
15. 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, 7.1] Federally Enforceable Through Title V Permit
16. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.3] Federally Enforceable Through Title V Permit
17. VOC emissions shall be measured by EPA Method 25, 25A, 25B, or 18. [District Rules 1081, 5.0 and 4408, 6.2.2.4] Federally Enforceable Through Title V Permit
18. Permittee shall maintain monthly records of the amount of gas dehydrated by dehydration units N-608-25 and -26. [District NSR Rule and District Rule 4408, 6.1.1] Federally Enforceable Through Title V Permit
19. Permittee shall maintain the following records: APCD permit number; location, size of glycol dehydrator reboiler (MMBTU/hr), and type of glycol used; description of any installed VOC control system; flow diagram of the dehydrator and any VOC controls; maintenance records of the VOC control system; reports of source tests; all records necessary to document inputs to and outputs of the GRI-GLYCalc software, if used. [District NSR Rule and District Rule 4408, 6.1.2] Federally Enforceable Through Title V Permit
20. All records shall be retained for a minimum of 5 years, and shall be made available for District inspection upon request. [District Rule 4408, 6.1.4] Federally Enforceable Through Title V Permit
21. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR Part 64] Federally Enforceable Through Title V Permit
22. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit
23. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** N-608-27-0

**EXPIRATION DATE:** 10/31/2009

**EQUIPMENT DESCRIPTION:**

1,680 BHP WAUKESHA MODEL L7044GSI NATURAL GAS-FIRED IC ENGINE WITH NON-SELECTIVE CATALYTIC REDUCTION (NSCR) AND AN O2 CONTROLLER POWERING A NATURAL GAS COMPRESSOR (K7)

## PERMIT UNIT REQUIREMENTS

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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] Federally Enforceable Through Title V Permit
3. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
4. Total sulfur content of natural gas combusted shall not exceed 1.0 grain/100 scf. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
5. The permittee shall install and operate a nonresettable fuel meter and a nonresettable elapsed operating time meter. In lieu of installing a nonresettable fuel meter, the owner or operator may use a non-resettable elapsed operating time meter in conjunction with the engine manufacturer's maximum rated fuel consumption to determine annual fuel usage. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
6. Operation of this engine shall not exceed 6,600 hrs/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
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, 6.5.6] Federally Enforceable Through Title V Permit
9. 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, 6.5.9] Federally Enforceable Through Title V Permit
10. Emissions from this IC engine shall not exceed any of the following limits: 5 ppmvd NO<sub>x</sub> @ 15% O<sub>2</sub> (equivalent to 0.070 g-NO<sub>x</sub>/bhp-hr), 0.011 g-SO<sub>x</sub>/bhp-hr, 0.02 g-PM<sub>10</sub>/bhp-hr, 56 ppmvd CO @ 15% O<sub>2</sub> (equivalent to 0.475 g-CO/bhp-hr), or 25 ppmvd VOC @ 15% O<sub>2</sub> (equivalent to 0.121 g-VOC/bhp-hr). [District Rules 2201 and 4702, 5.1] Federally Enforceable Through Title V Permit
11. NO<sub>x</sub>, CO, and VOC emissions shall be measured (source tested) not less than once every 24 months. [District Rule 4702, 6.3.2.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: PACIFIC GAS & ELECTRIC CO.

Location: MCDONALD ISLAND COMPRESSOR STATION, HOLT, CA 95234

12. 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 Rules 4702, 6.3.3] Federally Enforceable Through Title V Permit
13. 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, NO<sub>x</sub>, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit
14. The following test methods shall be used (or any other method approved by EPA and the APCO): NO<sub>x</sub> (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 25A or 25B, or ARB Method 100. [District Rules 1081 and 4702, 6.4] Federally Enforceable Through Title V Permit
15. 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
16. 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
17. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> 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, 5.6, 6.5.2, and 6.5.3] Federally Enforceable Through Title V Permit
18. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702, 5.6.9 and 6.5.7] Federally Enforceable Through Title V Permit
19. If either the NO<sub>x</sub> or CO concentrations corrected to 15% O<sub>2</sub>, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rule 4702, 5.6, 6.5.4, and 6.5.5] Federally Enforceable Through Title V Permit
20. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 15% O<sub>2</sub>, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702, 5.6.5 and 6.5.8] Federally Enforceable Through Title V Permit
21. 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 of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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



22. 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, 6.2.2] Federally Enforceable Through Title V Permit

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

Facility Name: PACIFIC GAS & ELECTRIC CO.  
Location: MCDONALD ISLAND COMPRESSOR STATION, HOLT, CA 95234

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** N-608-28-0

**EXPIRATION DATE:** 10/31/2009

**EQUIPMENT DESCRIPTION:**

1,680 BHP WAUKESHA MODEL L7044GSI NATURAL GAS-FIRED IC ENGINE WITH NON-SELECTIVE CATALYTIC REDUCTION (NSCR) AND AN O2 CONTROLLER POWERING A NATURAL GAS COMPRESSOR (K8)

## PERMIT UNIT REQUIREMENTS

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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] Federally Enforceable Through Title V Permit
3. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
4. Total sulfur content of natural gas combusted shall not exceed 1.0 grain/100 scf. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
5. The permittee shall install and operate a nonresettable fuel meter and a nonresettable elapsed operating time meter. In lieu of installing a nonresettable fuel meter, the owner or operator may use a non-resettable elapsed operating time meter in conjunction with the engine manufacturer's maximum rated fuel consumption to determine annual fuel usage. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
6. Operation of this engine shall not exceed 6,600 hrs/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
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, 6.5.6] Federally Enforceable Through Title V Permit
9. 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, 6.5.9] Federally Enforceable Through Title V Permit
10. Emissions from this IC engine shall not exceed any of the following limits: 5 ppmvd NO<sub>x</sub> @ 15% O<sub>2</sub> (equivalent to 0.070 g-NO<sub>x</sub>/bhp-hr), 0.011 g-SO<sub>x</sub>/bhp-hr, 0.02 g-PM<sub>10</sub>/bhp-hr, 56 ppmvd CO @ 15% O<sub>2</sub> (equivalent to 0.475 g-CO/bhp-hr), or 25 ppmvd VOC @ 15% O<sub>2</sub> (equivalent to 0.121 g-VOC/bhp-hr). [District Rules 2201 and 4702, 5.1] Federally Enforceable Through Title V Permit
11. NO<sub>x</sub>, CO, and VOC emissions shall be measured (source tested) not less than once every 24 months. [District Rule 4702, 6.3.2.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

12. 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 Rules 4702, 6.3.3] Federally Enforceable Through Title V Permit
13. 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, 6.3.3] Federally Enforceable Through Title V Permit
14. The following test methods shall be used (or any other method approved by EPA and the APCO): 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 25A or 25B, or ARB Method 100. [District Rules 1081 and 4702, 6.4] Federally Enforceable Through Title V Permit
15. 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
16. 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
17. 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, 5.6, 6.5.2, and 6.5.3] Federally Enforceable Through Title V Permit
18. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702, 5.6.9 and 6.5.7] Federally Enforceable Through Title V Permit
19. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rule 4702, 5.6, 6.5.4, and 6.5.5] Federally Enforceable Through Title V Permit
20. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702, 5.6.5 and 6.5.8] Federally Enforceable Through Title V Permit
21. 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 of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

22. 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, 6.2.2] Federally Enforceable Through Title V Permit

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** N-608-29-0

**EXPIRATION DATE:** 10/31/2009

**EQUIPMENT DESCRIPTION:**

1,680 BHP WAUKESHA MODEL L7044GSI NATURAL GAS-FIRED IC ENGINE WITH NON-SELECTIVE CATALYTIC REDUCTION (NSCR) AND AN O2 CONTROLLER POWERING A NATURAL GAS COMPRESSOR (K9)

## PERMIT UNIT REQUIREMENTS

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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] Federally Enforceable Through Title V Permit
3. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
4. Total sulfur content of natural gas combusted shall not exceed 1.0 grain/100 scf. [District Rules 2201 and 4801] Federally Enforceable Through Title V Permit
5. The permittee shall install and operate a nonresettable fuel meter and a nonresettable elapsed operating time meter. In lieu of installing a nonresettable fuel meter, the owner or operator may use a non-resettable elapsed operating time meter in conjunction with the engine manufacturer's maximum rated fuel consumption to determine annual fuel usage. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit
6. Operation of this engine shall not exceed 6,600 hrs/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
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, 6.5.6] Federally Enforceable Through Title V Permit
9. 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, 6.5.9] Federally Enforceable Through Title V Permit
10. Emissions from this IC engine shall not exceed any of the following limits: 5 ppmvd NO<sub>x</sub> @ 15% O<sub>2</sub> (equivalent to 0.070 g-NO<sub>x</sub>/bhp-hr), 0.011 g-SO<sub>x</sub>/bhp-hr, 0.02 g-PM<sub>10</sub>/bhp-hr, 56 ppmvd CO @ 15% O<sub>2</sub> (equivalent to 0.475 g-CO/bhp-hr), or 25 ppmvd VOC @ 15% O<sub>2</sub> (equivalent to 0.121 g-VOC/bhp-hr). [District Rules 2201 and 4702, 5.1] Federally Enforceable Through Title V Permit
11. NO<sub>x</sub>, CO, and VOC emissions shall be measured (source tested) not less than once every 24 months. [District Rule 4702, 6.3.2.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

12. 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 Rules 4702, 6.3.3] Federally Enforceable Through Title V Permit
13. 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, NO<sub>x</sub>, and CO concentrations shall be reported in ppmv, corrected to 15% oxygen. [District Rule 4702, 6.3.3] Federally Enforceable Through Title V Permit
14. The following test methods shall be used (or any other method approved by EPA and the APCO): NO<sub>x</sub> (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 25A or 25B, or ARB Method 100. [District Rules 1081 and 4702, 6.4] Federally Enforceable Through Title V Permit
15. 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
16. 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
17. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> 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, 5.6, 6.5.2, and 6.5.3] Federally Enforceable Through Title V Permit
18. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4702, 5.6.9 and 6.5.7] Federally Enforceable Through Title V Permit
19. If either the NO<sub>x</sub> or CO concentrations corrected to 15% O<sub>2</sub>, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rule 4702, 5.6, 6.5.4, and 6.5.5] Federally Enforceable Through Title V Permit
20. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 15% O<sub>2</sub>, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4702, 5.6.5 and 6.5.8] Federally Enforceable Through Title V Permit
21. 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 of fuel used, maintenance or modifications performed, monitoring data, compliance source test results, and any other information necessary to demonstrate compliance. [District Rule 4702, 6.2.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

22. 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, 6.2.2] Federally Enforceable Through Title V Permit

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

**Appendix C**  
**Detailed Facility List**



**Detailed Facility Report**  
For Facility=608  
Sorted by Facility Name and Permit Number

PACIFIC GAS & ELECTRIC CO	FAC #	N 608	TYPE	TitleV	EXPIRE ON:	10/31/2009
MCDONALD ISLAND COMPRESSOR STATION	STATUS	A	TOXIC ID:	51373	AREA	9/302
HOLT, CA 95234	TELEPHONE	5109433811			INSP. DATE	05/11

PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
N-608-1-4	625 HP	3020-10 D	1	479.00	479.00	A	625 BHP CATERPILLAR MODEL G-398 NATURAL GAS FIRED IC ENGINE POWERING AN EMERGENCY GENERATOR (SERIAL # 73B1022) SERVING THE TURNER CUT STATION
N-608-2-4	625 HP	3020-10 D	1	479.00	479.00	A	625 BHP CATERPILLAR MODEL G-398 NATURAL GAS FIRED IC ENGINE POWERING AN EMERGENCY GENERATOR (SERIAL # 73B1012) SERVING THE TURNER CUT STATION
N-608-3-4	625 HP	3020-10 D	1	479.00	479.00	A	625 BHP CATERPILLAR MODEL G-398 NATURAL GAS FIRED IC ENGINE POWERING AN EMERGENCY GENERATOR (SERIAL # 73B1020) SERVING THE WHISKEY SLOUGH STATION
N-608-4-4	625 HP	3020-10 D	1	479.00	479.00	A	625 BHP CATERPILLAR MODEL G-398 NATURAL GAS FIRED IC ENGINE POWERING AN EMERGENCY GENERATOR (SERIAL # 73B1025) SERVING THE WHISKEY SLOUGH STATION
N-608-5-0	1642 BHP	3020-10 F	1	749.00	749.00	D	1642 BHP NATURAL GAS FIRED COMPRESSOR STATION (K3) *** DELETED PURSUANT TO LETTER FROM PG&E DATED JUNE 6, 1996 (RECEIVED BY THE DISTRICT ON JULY 15, 1996). ***
N-608-6-0	1642 BHP	3020-10 F	1	749.00	749.00	D	1642 BHP NATURAL GAS FIRED COMPRESSOR STATION (K4) **** DELETED PURSUANT TO A LETTER FROM PG&E DATED JUNE 6, 1996 (RECEIVED BY DISTRICT ON JULY 15, 1996)****
N-608-7-2	3,750 kBTU/hr	3020-02 F	1	607.00	607.00	A	NATURAL GAS DEHYDRATION SYSTEM (TURNER CUT STATION) AND ODORIZING SYSTEM (SHARED WITH N-608-24) INCLUDING TWO CONTACTOR TOWERS AND A 3-PHASE GAS SEPARATOR SERVED BY A 6.75 MMBTU/HR THERMAL OXIDIZER (SHARED WITH N-608-24) AND A PERMIT EXEMPT < 5 MMBTU/HR REBOILER (#1).
N-608-8-2	ONE (1) NOZZLE	3020-11 A	1	34.00	34.00	A	ONE 1,000 GALLON ABOVEGROUND CONVAULT STORAGE TANK SERVED BY AN EBW COAXIAL PHASE I VAPOR RECOVERY SYSTEM (G-70-116-F) AND ONE FUELING POINT WITH ONE GASOLINE DISPENSING NOZZLE SERVED BY A BALANCE PHASE II VAPOR RECOVERY SYSTEM (G-70-116-F) .
N-608-13-4	267 HP	3020-10 C	1	240.00	240.00	A	MODIFICATION OF: 267 BHP CATERPILLAR MODEL 3306-DI DIESEL FIRED EMERGENCY IC ENGINE POWERING A FIRE PUMP (SERIAL # 64Z204154).
N-608-14-4	267 HP	3020-10 C	1	240.00	240.00	A	MODIFICATION OF: 267 BHP CATERPILLAR MODEL 3306-DI DIESEL FIRED EMERGENCY IC ENGINE POWERING A FIRE PUMP (SERIAL # 64Z204157).
N-608-15-1	220 HP	3020-10 C	1	240.00	240.00	A	220 BHP NATURAL GAS FIRED RICH BURN EMERGENCY IC ENGINE POWERING AN ELECTRICAL GENERATOR
N-608-16-2	3,500 gallons	3020-05 A	1	75.00	75.00	A	ONE 3,500 GALLON ABOVEGROUND METHANOL STORAGE TANK (TURNER CUT STATION)

**Detailed Facility Report**

For Facility=608

Sorted by Facility Name and Permit Number

PERMIT NUMBER	FEE DESCRIPTION	FEE RULE	QTY	FEE AMOUNT	FEE TOTAL	PERMIT STATUS	EQUIPMENT DESCRIPTION
N-608-17-2	3,500 gallons	3020-05 A	1	75.00	75.00	A	ONE 3,500 GALLON ABOVEGROUND METHANOL STORAGE TANK (WHISKY SLOUGH STATION)
N-608-18-2	1,500 bhp	3020-10 F	1	749.00	749.00	A	1,500 BHP WAUKESHA MODEL 9390 GL LEAN BURN NATURAL GAS FIRED IC ENGINE POWERING A NATURAL GAS COMPRESSOR (PG&E DESIGNATION K-3).
N-608-19-2	1,500 bhp	3020-10 F	1	749.00	749.00	A	1,500 BHP WAUKESHA MODEL 9390 GL LEAN BURN NATURAL GAS FIRED IC ENGINE POWERING A NATURAL GAS COMPRESSOR (PG&E DESIGNATION K-4).
N-608-20-2	1,150 bhp	3020-10 F	1	749.00	749.00	A	1,150 BHP WAUKESHA MODEL 7042 GL LEAN BURN NATURAL GAS FIRED IC ENGINE POWERING A NATURAL GAS COMPRESSOR (PG&E DESIGNATION K-5).
N-608-21-2	1,150 bhp	3020-10 F	1	749.00	749.00	A	1,150 BHP WAUKESHA MODEL 7042 GL LEAN BURN NATURAL GAS FIRED IC ENGINE POWERING A NATURAL GAS COMPRESSOR (PG&E DESIGNATION K-6).
N-608-24-2	3,750 kBTU/hr	3020-02 F	1	607.00	607.00	A	NATURAL GAS DEHYDRATION SYSTEM (TURNER CUT STATION) AND ODORIZING SYSTEM (SHARED WITH N-608-7) INCLUDING TWO CONTACTOR TOWERS AND A 3-PHASE GAS SEPARATOR SERVED BY A 6.75 MMBTU/HR THERMAL OXIDIZER (SHARED WITH N-608-7) AND A PERMIT EXEMPT < 5 MMBTU/HR REBOILER (#2)
N-608-25-2	3,750 kBTU/hr	3020-02 F	1	607.00	607.00	A	NATURAL GAS DEHYDRATION SYSTEM (WHISKEY SLOUGH STATION) AND ODORIZING SYSTEM (SHARED WITH N-608-26) INCLUDING TWO CONTACTOR TOWERS AND A 3-PHASE GAS SEPARATOR SERVED BY A 6.75 MMBTU/HR THERMAL OXIDIZER (SHARED WITH N-608-26) AND A PERMIT EXEMPT < 5 MMBTU/HR REBOILER (#3)
N-608-26-2	3,750 kBTU/hr	3020-01 F	1	607.00	607.00	A	NATURAL GAS DEHYDRATION SYSTEM (WHISKEY SLOUGH STATION) AND ODORIZING SYSTEM (SHARED WITH N-608-25) INCLUDING TWO CONTACTOR TOWERS AND A 3-PHASE GAS SEPARATOR SERVED BY A 6.75 MMBTU/HR THERMAL OXIDIZER (SHARED WITH N-608-25) AND A PERMIT EXEMPT < 5 MMBTU/HR REBOILER (#4)
N-608-27-0	1,680 bhp IC engine	3020-10 F	1	749.00	749.00	A	1,680 BHP WAUKESHA MODEL L7044GSI NATURAL GAS-FIRED IC ENGINE WITH NON-SELECTIVE CATALYTIC REDUCTION (NSCR) AND AN O2 CONTROLLER POWERING A NATURAL GAS COMPRESSOR (K7)
N-608-28-0	1,680 bhp IC engine	3020-10 F	1	749.00	749.00	A	1,680 BHP WAUKESHA MODEL L7044GSI NATURAL GAS-FIRED IC ENGINE WITH NON-SELECTIVE CATALYTIC REDUCTION (NSCR) AND AN O2 CONTROLLER POWERING A NATURAL GAS COMPRESSOR (K8)
N-608-29-0	1,680 bhp IC engine	3020-10 F	1	749.00	749.00	A	1,680 BHP WAUKESHA MODEL L7044GSI NATURAL GAS-FIRED IC ENGINE WITH NON-SELECTIVE CATALYTIC REDUCTION (NSCR) AND AN O2 CONTROLLER POWERING A NATURAL GAS COMPRESSOR (K9)

Number of Facilities Reported: 1

**Appendix D**  
**Major HAP Source Determination**

**Major Air Toxics Source Determination:**

To determine whether the facility is a Major Air Toxics Source, the facility-wide hazardous air pollutant (HAP) emissions will be compared to the Major Air Toxics Source thresholds. Those thresholds are 10 tons/yr of any single HAP or combined HAP emissions of 25 tons/yr. To determine the facility-wide potential to emit of HAPS, the facility-wide natural gas and diesel usage limits will be applied to the appropriate emission factor. The emission factors are from the California Air Toxics Emission Factors (CATEF) database.

**Natural Gas fired IC Engines (>650 bhp):**

New Title V Permit Number	Maximum Fuel Usage (MMScf/yr)
N-608-18-3	65.9835
N-608-19-3	65.9835
N-608-20-3	51.3084
N-608-21-3	51.3084
N-608-27-1	95.6208
N-608-28-1	95.6208
N-608-29-1	95.6208
<b>Total</b>	<b>521.4462</b>

The hourly fuel usages are from various application materials, and the annual quantities were arrived at utilizing the appropriate operating hour limits.

Toxic Emissions (natural Gas fired IC Engines > 650 bhp)		
Compound	Emission Factor (lb/MMscf)	Potential to Emit (lb/yr)
Acenaphthene	0.000217	0.113
Acenaphthylene	0.000735	0.383
Acetaldehyde	2.62	1,366
Acrolein	0.161	84.0
Anthracene	0.000171	0.0892
Benzene	0.259	135.1
Benzo(a)anthracene	0.0000992	0.0517
Benzo(a)pyrene	0.000003880	0.00202
Benzo(b)fluoranthene	0.0000798	0.0416
Benzo(g,h,i)perylene	0.0000171	0.00892
Benzo(k) fluoranthene	0.0000121	0.00631
1,3 Butadiene	0.415	216.4
Chrysene	0.0000225	0.0117
Dibenz(a,h)anthracene	0.00000388	0.00202
Ethylbenzene	0.115	60.0
Fluoranthene	0.000475	0.248
Fluorene	0.000798	0.416
Formaldehyde	20.9	10,898.2
Indeno(1,2,3cd)pyrene	0.0000109	0.00568
Napthalene	0.0310	16.2
Phenanthrene	0.00275	1.43
Propylene	12.1	6,309
Pyrene	0.000326	0.170
Toluene	0.394	205.4
Xylene (total)	0.965	503.2
Total	---	19,796

**Natural Gas fired IC Engines (<650 bhp):**

New Title V Permit Number	Maximum Fuel Usage (MMScf/yr)
N-608-1-5	0.5016
N-608-2-5	0.5016
N-608-3-5	0.5016
N-608-4-5	0.5016
N-608-15-2	0.1502
Total	2.1566

The hourly fuel usages are from various application materials, and the annual quantities were arrived at utilizing the appropriate operating hour limits.

Toxic Emissions (natural Gas fired IC Engines < 650 bhp)		
Compound	Emission Factor (lb/MMscf)	Potential to Emit (lb/yr)
Acenaphthene	0.00393	0.00848
Acenaphthylene	0.0162	0.0349
Acetaldehyde	1.82	3.93
Acrolein	1.37	2.95
Anthracene	0.00226	0.00487
Benzene	10.2	22.0
Benzo(a)anthracene	0.000339	0.000731
Benzo(a)pyrene	0.000151	0.000326
Benzo(b)fluoranthene	0.000301	0.000649
Formaldehyde	0.14	0.30
Benzo(k) fluoranthene	0.000117	0.000252
Chrysene	0.000395	0.000851
Dibenz(a,h)anthracene	0.0000145	0.0000313
Ethylbenzene	0.0144	0.0311
Fluoranthene	11.4	24.6
Fluorene	0.00904	0.0195
Indeno(1,2,3cd)pyrene	0.000207	0.000446
Napthalene	0.0866	0.187
Phenanthrene	0.00885	0.0191
Propylene	42.0	90.6
Pyrene	0.00264	0.00569
Toluene	2.62	5.65
Xylene (total)	0.0738	0.159
Benzo(g,h,i)perylene	0.000245	0.000528
1,3 Butadiene	0.105	0.226
Total	---	151

**Natural Gas Dehydration Units:**

New Title V Permit Number	Maximum Fuel Usage (MMBtu/yr)	Maximum Fuel Usage (MMScf/yr)
N-608-7-4	59,130	59.13
N-608-24-3		
N-608-25-4	59,130	59.13
N-608-26-4		
Total		118.26

The conversion from MMBtu/yr to MMscf/yr was made assuming a natural gas heat content of 1,000 Btu/scf.

Toxic Emissions (natural Gas fired IC Engines)		
Compound	Emission Factor (lb/MMscf)	Potential to Emit (lb/yr)
Benzene	0.283	33.5
Ethylbenzene	0.00915	1.08
Formaldehyde	0.0000490	0.00579
Hydrogen Sulfide	0.115	13.6
Toluene	0.192	22.7
Xylene (m)	0.0231	2.73
Xylene (o)	0.00858	1.01
Xylene (p)	0.00781	0.924
Total	---	76

**Gasoline Dispensing Operation (N-608-8-2):**

Gasoline vapors are listed on the CARB list of AB-2588 pollutants.

$$PE_{\text{Gasoline}} = 1,135 \text{ lb/yr (EE for Project N-1060086)}$$

**Methanol Storage Tanks (N-608-16-2 and N-608-17-2):**

As explained in the Application Review document for project N-1071202, the emissions will consist solely of natural gas, which is the blanketing gas. Natural gas does include some constituents that are VOC. The VOC emission quantities were determined during the processing of the applications for the above mentioned project to be 1 pound per year per tank.

As shown in the CARB VOC speciation manual (Code 520), natural gas includes the following fraction of these constituents:

Ethane	0.0510
Isobutane	0.0010
Methane	0.9370
N-Butane	0.0010
Propane	0.01

An examination of the Clean Air Act Amendments of 1990 List of Hazardous Air Pollutants showed that none of these items is a hazardous air pollutant. Therefore, no hazardous air pollutant emissions are expected.



**Diesel Fired IC Engines:**

New Title V Permit Number	Maximum Fuel Usage (gallons per year)
N-608-13-5	1,450
N-608-14-5	1,450
Total	2,900 (2.900 x 10 <sup>3</sup> )

The hourly fuel usages are from various application material, and the annual quantities were arrived at utilizing the appropriate operating hour limits.

Toxic Emissions (Emergency Diesel Fired IC Engines)		
Compound	Emission Factor (lb/10 <sup>3</sup> gal)	Potential to Emit (lb/yr)
Acenaphthene	0.000867	0.00251
Acenaphthylene	0.00132	0.00383
Acetaldehyde	0.00646	0.0187
Acrolein	0.00179	0.00519
Anthracene	0.000289	0.000838
Benzene	0.104	0.302
Benzo(a)anthracene	0.0000969	0.000281
Benzo(a)pyrene	0.0000477	0.000138
Dibenz(a,h)anthracene	0.000280	0.000812
ethylbenzene	0.00803	0.0233
fluoranthene	0.000330	0.000957
fluorene	0.00124	0.00360
formaldehyde	0.176	0.510
Hexane	0.00147	0.00426
Indeno(1,2,3-cd)pyrene	0.000280	0.000812
Napthalene	0.0319	0.0925
phenanthrene	0.00648	0.0188
propylene	0.345	1.00
pyrene	0.000280	0.000812
toluene	0.111	0.322
Xylene (total)	0.0206	0.0597
Total	---	2

### Summary of HAP Emissions (Annual Total Individual)

Compound	IC Engines (lb/yr)			Dehydration	Storage and/or Dispensing/Loadout (lb/yr)		Total
	Natural gas fired > 650 bhp	Natural gas fired < 650 bhp	Diesel (all)	Dehydrators (lb/yr)	Methanol	Gasoline	
Acenaphthene	0.113	0.00848	0.00251	----	----	----	0.124
Acenaphthylene	0.383	0.0349	0.00383	----	----	----	0.418
Acataldehyde	1,366	3.93	0.0187	----	----	----	1,370
Acrolein	84.0	2.95	0.00519	----	----	----	90.0
Anthracene	0.0892	0.00487	0.000838	----	----	----	0.0949
Benzene	135.1	22.0	0.302	33.5	----	----	191
Benzo(a)anthracene	0.0517	0.000731	0.000281	----	----	----	0.0527
Benzo(a)pyrene	0.00202	0.000326	0.000138	----	----	----	0.00248
Benzo(b)fluoranthene	0.0416	0.000649	----	----	----	----	0.0422
Benzo(g,h,i)perylene	0.00892	0.000528	----	----	----	----	0.00945
Benzo(k) fluoranthene	0.00631	0.000252	----	----	----	----	0.00656
1,3 Butadiene	216.4	0.226	----	----	----	----	217
Chrysene	0.0117	0.000851	----	----	----	----	0.0126
Dibenz(a,h)anthracene	0.00202	0.0000313	0.000812	----	----	----	0.0210
Ethylbenzene	60.0	0.0311	0.0233	1.08	----	----	61.1
Fluoranthene	0.248	24.6	0.000957	----	----	----	24.8
Fluorene	0.416	0.0195	0.00360	----	----	----	0.439
Formaldehyde	10,898.2	0.30	0.510	0.00579	----	----	10,899
Gasoline Vapor	----	----	----	----	----	1,135	1,135
Hexane	----	----	0.00426	----	----	----	0.00426
Hydrogen Sulfide	----	----	----	13.6	----	----	13.6
Indeno(1,2,3cd)pyrene	0.00568	0.000446	0.000812	----	----	----	0.00993
Methanol Vapor	----	----	----	----	0	----	0
Napthalene	16.2	0.187	0.0925	----	----	----	16.5
Phenanthrene	1.43	0.0191	0.0188	----	----	----	1.47
Propylene	6,309	90.6	1.00	----	----	----	6,401
Pyrene	0.170	0.00569	0.000812	----	----	----	0.177
Toluene	205.4	5.65	0.322	22.7	----	----	234
Xylene (total)	503.2	0.159	0.0597	4.66	----	----	508
<b>Total</b>							<b>21,163</b>

As can be seen, the combined potential HAP emissions from the permitted equipment at the facility are less than 25 tons per year and the potential to emit of each single HAP is less than 10 tons per year. Therefore, the facility is not a major source of HAP emissions.

## **Appendix E**

### **Emission Factor Conversions**

**TABLE 1-1  
SUMMARY OF AVERAGE RESULTS  
PG&E MCDONALD ISLAND COMPRESSOR STATION  
OCTOBER 12-13, 2010**

Compressor no.	K-3	K-4	K-5	K-6	Permit Limits
<b>Date:</b>	10/12/10	10/12/10	10/13/10	10/13/10	
<b>Process Conditions:</b>					
Brake Horsepower	1,240	1,327	1,035	1,085	--
Unit fuel flow rate, scfh	10,810	10,810	9,333	9,047	--
<b>Stack Gas:</b>					
O <sub>2</sub> , % volume dry	10.8	10.8	9.6	10.7	--
CO <sub>2</sub> , % volume dry	5.7	5.7	6.4	5.8	--
Volumetric Flow Rate, dscfm	3,269	3,265	2,509	2,702	--
<b>CO Emissions:</b>					
ppm volume dry	534.0	520.8	422.0	487.5	--
lb/hr	7.73	7.53	4.69	5.84	--
g/bhp·hr	2.8	2.6	2.1	2.4	3.0
<b>NO<sub>x</sub> Emissions:</b>					
ppm volume dry	79.8	76.8	64.3	68.5	--
lb/hr	1.90	1.83	1.17	1.36	--
g/bhp·hr	0.7	0.6	0.5	0.6	0.9
<b>VOC Emissions:</b>					
ppm volume dry	68.6	80.8	66.5	82.6	--
lb/hr	0.57	0.67	0.42	0.57	--
g/bhp·hr	0.2	0.2	0.2	0.2	0.9

Note: Standard EPA fuel factor for natural gas of 8,578 dscf/MMBtu @60F and 1,020 btu/scf @ 60F



The calculations below utilize the most recent source test data to show the ppmvd @ 15% O<sub>2</sub> equivalent of the g/bhp-hr emission permit limits. The source test was conducted by Avagadro Group on October 12 and 13 of 2010.

**N-608-18:**

**Emission Limits:**

NOx: 0.9 g/bhp-hr  
CO: 3.0 g/bhp-hr  
VOC: 0.9 g/bhp-hr

**Engine Output During Source Test:**

1,240 bhp

**Emissions During Source Test:**

NOx: 79.8 ppmvd @ 10.8% O<sub>2</sub> (1.90 lb/hr)  
CO: 534.0 ppmvd @ 10.8% O<sub>2</sub> (7.73 lb/hr)  
VOC: 68.6 ppmvd @ 10.8% O<sub>2</sub> (0.57 lb/hr)

**Emissions During Source Test (corrected to 15% O<sub>2</sub>):**

NOx:  $79.8[(20.95 - 15)/(20.95 - 10.8)] = 46.8$  ppmvd @ 15% O<sub>2</sub>  
CO:  $534.0[(20.95 - 15)/(20.95 - 10.8)] = 313.0$  ppmvd @ 15% O<sub>2</sub>  
VOC:  $68.6[(20.95 - 15)/(20.95 - 10.8)] = 40.2$  ppmvd @ 15% O<sub>2</sub>

**Emission Factor for Emissions During Source Test (correct number of significant figures):**

NOx:  $(1.90 \text{ lb/hr})(453.6 \text{ g/lb}) / 1,240 \text{ bhp} = 0.695 \text{ g/bhp-hr}$   
CO:  $(7.73 \text{ lb/hr})(453.6 \text{ g/lb}) / 1,240 \text{ bhp} = 2.83 \text{ g/bhp-hr}$   
VOC:  $(0.57 \text{ lb/hr})(453.6 \text{ g/lb}) / 1,240 \text{ bhp} = 0.209 \text{ g/bhp-hr}$

**Equivalent Emission Factors (by ratioing)**

$$0.9 \text{ g/bhp-hr} = (46.8 \text{ ppmvd @ 15\% O}_2)(0.9 / 0.695) \\ = 60.6 \text{ ppmvd \% 15\% O}_2$$

$$3.0 \text{ g/bhp-hr} = (313.0 \text{ ppmvd @ 15\% O}_2)(3.0 / 2.83) \\ = 332 \text{ ppmvd \% 15\% O}_2$$

$$0.9 \text{ g/bhp-hr} = (40.2 \text{ ppmvd @ 15\% O}_2)(0.9 / 0.209) \\ = 173 \text{ ppmvd \% 15\% O}_2$$

**N-608-19:**

**Emission Limits:**

NOx: 0.9 g/bhp-hr  
CO: 3.0 g/bhp-hr  
VOC: 0.9 g/bhp-hr

**Engine Output During Source Test:**

1,327 bhp

**Emissions During Source Test:**

NOx: 76.8 ppmvd @ 10.8% O<sub>2</sub> (1.83 lb/hr)  
CO: 520.8 ppmvd @ 10.8% O<sub>2</sub> (7.53 lb/hr)  
VOC: 80.8 ppmvd @ 10.8% O<sub>2</sub> (0.67 lb/hr)

**Emissions During Source Test (corrected to 15% O<sub>2</sub>):**

NOx:  $76.8[(20.95 - 15)/(20.95 - 10.8)] = 45.0$  ppmvd @ 15% O<sub>2</sub>  
CO:  $520.8[(20.95 - 15)/(20.95 - 10.8)] = 305$  ppmvd @ 15% O<sub>2</sub>  
VOC:  $80.8[(20.95 - 15)/(20.95 - 10.8)] = 47.4$  ppmvd @ 15% O<sub>2</sub>

**Emission Factor for Emissions During Source Test (correct number of significant figures):**

NOx:  $(1.83 \text{ lb/hr})(453.6 \text{ g/lb}) / 1,327 \text{ bhp} = 0.626 \text{ g/bhp-hr}$   
CO:  $(7.53 \text{ lb/hr})(453.6 \text{ g/lb}) / 1,327 \text{ bhp} = 2.57 \text{ g/bhp-hr}$   
VOC:  $(0.67 \text{ lb/hr})(453.6 \text{ g/lb}) / 1,327 \text{ bhp} = 0.229 \text{ g/bhp-hr}$

**Equivalent Emission Factors (by ratioing)**

$$0.9 \text{ g NOx/bhp-hr} = (45.0 \text{ ppmvd @ 15\% O}_2)(0.9 / 0.626) \\ = 64.7 \text{ ppmvd \% 15\% O}_2$$

$$3.0 \text{ g CO/bhp-hr} = (305 \text{ ppmvd @ 15\% O}_2)(3.0 / 2.57) \\ = 356 \text{ ppmvd \% 15\% O}_2$$

$$0.9 \text{ g VOC/bhp-hr} = (47.4 \text{ ppmvd @ 15\% O}_2)(0.9 / 0.229) \\ = 186 \text{ ppmvd \% 15\% O}_2$$

**N-608-20:**

**Emission Limits:**

NOx: 0.9 g/bhp-hr  
CO: 3.0 g/bhp-hr  
VOC: 0.9 g/bhp-hr

**Engine Output During Source Test:**

1,035 bhp

**Emissions During Source Test:**

NOx: 64.3 ppmvd @ 9.6% O<sub>2</sub> (1.17 lb/hr)  
CO: 422.0 ppmvd @ 9.6% O<sub>2</sub> (4.69 lb/hr)  
VOC: 66.5 ppmvd @ 9.6% O<sub>2</sub> (0.42 lb/hr)

**Emissions During Source Test (corrected to 15% O<sub>2</sub>):**

NOx:  $64.3[(20.95 - 15)/(20.95 - 9.6)] = 33.7$  ppmvd @ 15% O<sub>2</sub>  
CO:  $422.0[(20.95 - 15)/(20.95 - 9.6)] = 221.2$  ppmvd @ 15% O<sub>2</sub>  
VOC:  $66.5[(20.95 - 15)/(20.95 - 9.6)] = 34.9$  ppmvd @ 15% O<sub>2</sub>

**Emission Factor for Emissions During Source Test (correct number of significant figures):**

NOx:  $(1.17 \text{ lb/hr})(453.6 \text{ g/lb}) / 1,035 \text{ bhp} = 0.513$  g/bhp-hr  
CO:  $(4.69 \text{ lb/hr})(453.6 \text{ g/lb}) / 1,035 \text{ bhp} = 2.06$  g/bhp-hr  
VOC:  $(0.42 \text{ lb/hr})(453.6 \text{ g/lb}) / 1,035 \text{ bhp} = 0.184$  g/bhp-hr

**Equivalent Emission Factors (by ratioing)**

$$0.9 \text{ g NOx/bhp-hr} = (33.7 \text{ ppmvd @ 15\% O}_2)(0.9 / 0.513) \\ = 59.1 \text{ ppmvd \% 15\% O}_2$$

$$3.0 \text{ g CO/bhp-hr} = (221.2 \text{ ppmvd @ 15\% O}_2)(3.0 / 2.06) \\ = 322 \text{ ppmvd \% 15\% O}_2$$

$$0.9 \text{ g VOC/bhp-hr} = (34.9 \text{ ppmvd @ 15\% O}_2)(0.9 / 0.184) \\ = 171 \text{ ppmvd \% 15\% O}_2$$

**N-608-21:**

**Emission Limits:**

NOx: 0.9 g/bhp-hr  
CO: 3.0 g/bhp-hr  
VOC: 0.9 g/bhp-hr

**Engine Output During Source Test:**

1,085 bhp

**Emissions During Source Test:**

NOx: 68.5 ppmvd @ 10.7% O<sub>2</sub> (1.36 lb/hr)  
CO: 487.5 ppmvd @ 10.7% O<sub>2</sub> (5.84 lb/hr)  
VOC: 82.6 ppmvd @ 10.7% O<sub>2</sub> (0.57 lb/hr)

**Emissions During Source Test (corrected to 15% O<sub>2</sub>):**

NOx:  $68.5[(20.95 - 15)/(20.95 - 10.7)] = 39.8$  ppmvd @ 15% O<sub>2</sub>  
CO:  $487.5[(20.95 - 15)/(20.95 - 10.7)] = 283$  ppmvd @ 15% O<sub>2</sub>  
VOC:  $82.6[(20.95 - 15)/(20.95 - 10.7)] = 47.9$  ppmvd @ 15% O<sub>2</sub>

**Emission Factor for Emissions During Source Test (correct number of significant figures):**

NOx:  $(1.36 \text{ lb/hr})(453.6 \text{ g/lb}) / 1,085 \text{ bhp} = 0.569 \text{ g/bhp-hr}$   
CO:  $(5.84 \text{ lb/hr})(453.6 \text{ g/lb}) / 1,085 \text{ bhp} = 2.44 \text{ g/bhp-hr}$   
VOC:  $(0.57 \text{ lb/hr})(453.6 \text{ g/lb}) / 1,085 \text{ bhp} = 0.238 \text{ g/bhp-hr}$

**Equivalent Emission Factors (by ratioing)**

$$0.9 \text{ g NOx/bhp-hr} = (39.8 \text{ ppmvd @ 15\% O}_2)(0.9 / 0.569) \\ = 63.0 \text{ ppmvd \% 15\% O}_2$$

$$3.0 \text{ g CO/bhp-hr} = (283 \text{ ppmvd @ 15\% O}_2)(3.0 / 2.44) \\ = 348 \text{ ppmvd \% 15\% O}_2$$

$$0.9 \text{ g VOC /bhp-hr} = (47.9 \text{ ppmvd @ 15\% O}_2)(0.9 / 0.238) \\ = 181 \text{ ppmvd \% 15\% O}_2$$