

DEC 2 1 2011

Raymond Rodriguez McKittrick Limited 34759 Lencioni Ave Bakersfield, CA 93308-9797

Re: Notice of Preliminary Decision - Title V Permit Renewal

District Facility # S-1251 Project # S-1104208

Dear Mr. Rodriguez:

Enclosed for your review and comment is the District's analysis of the application to renew the Federally Mandated Operating Permit for McKittrick Limited for its power plant which is located at 4905 Reward Road in McKittrick, California.

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

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

Sincerely,

**David Warner** 

**Director of Permit Services** 

**Attachments** 

C: Jonah Aiyabei, Permit Services Engineer

Seyed Sadredin

Executive Director/Air Pollution Control Officer



DEC 2 1 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 # S-1251 Project # S-1104208

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 McKittrick Limited for its power plant which is located at 4905 Reward Road in McKittrick, California.

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

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

Sincerely,

David Warner

**Director of Permit Services** 

Attachments

C: Jonah Aiyabei, Permit Services Engineer

Seyed Sadredin

Executive Director/Air Pollution Control Officer

#### Southern Region



DEC 2 1 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 # S-1251 Project # S-1104208

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 McKittrick Limited for its power plant which is located at 4905 Reward Road in McKittrick, California.

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

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

Sincerely,

David Warner

**Director of Permit Services** 

Attachments

C: Jonah Aiyabei, Permit Services Engineer

Seyed Sadredin

Executive Director/Air Pollution Control Officer

#### 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 McKittrick Limited for its power plant which is located at 4905 Reward Road in McKittrick, California.

The District's analysis of the legal and factual basis for this proposed action, project #S-1104208. is available for public inspection http://www.valleyair.org/notices/public\_notices\_idx.htm and the District office at the address below. There are no emission changes associated with this proposed action. This will be the public's only opportunity to comment on the specific conditions of the proposed renewal of the Federally Mandated Operating permit. If requested by the public, the District will hold a public hearing regarding issuance of this renewed permit. For additional information, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900. Written comments on the proposed renewed permit must be submitted within 30 days of the publication date of this notice to DAVID WARNER, DIRECTOR OF PERMIT SERVICES, SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT, 1990 E. GETTYSBURG AVE, FRESNO, CALIFORNIA 93726-0244.

# SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT

### Title V Permit Renewal Evaluation McKittrick Limited S-1251

### **TABLE OF CONTENTS**

| l.    | PROPOSAL                               | 1    |
|-------|--|------|
| II.   | FACILITY LOCATION                      | 1    |
| 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                    | 5    |
| IX.   | PERMIT SHIELD                          |      |
| Χ.    | PERMIT CONDITIONS                      |      |
| XI.   | ATTACHMENTS                            |      |
| Α.    | RENEWED TITLE V OPERATING PER          | RMIT |
|       | PREVIOUS TITLE V OPERATING PER         |      |
| C.    | DETAILED FACILITY L                    |      |

### TITLE V PERMIT RENEWAL EVALUATION

#### **Cogeneration Power Plant**

Engineer: Jonah Aiyabei

Date: September 14, 2011

Facility Number: S-1251

Facility Name: McKittrick Limited
Mailing Address: 34759 Lencioni Ave.

Bakersfield, CA 93308-9797

Contact Name: Raymond Rodriguez

Phone: (661) 387-7802

Responsible Official: Ed Capehart

Title: Plant Manager

Project #: S-1104208

Deemed Complete: September 7, 2010

#### I. PROPOSAL

McKittrick Limited was issued its initial Title V permit on December 5, 2002. 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

McKittrick Limited is located at 4905 Reward Road in McKittrick in Kern County.

#### III. EQUIPMENT LISTING

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

#### IV. GENERAL PERMIT TEMPLATE USAGE

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

Template SJV-UM-0-3 conditions have been added as conditions 1 through 40 for the renewed facility wide requirements (S-1251-0-3) to replace conditions 1 through 40 of the existing facility wide requirements (S-1251-0-2).

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

Model general permit templates have been previously subject to EPA and public review. The terms and conditions from the model general permit templates as identified above 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.

 Conditions 1 through 40 of permit unit S-1251-0-3, including their underlying applicable requirements, originate from the model general permit template and are not subject to further EPA and Public review.

#### VI. FEDERALLY ENFORCEABLE REQUIREMENTS

#### **Rules Addressed by General Permit Template**

- District Rule 1100, <u>Equipment Breakdown</u>, (amended December 17, 1992)
- District Rule 1160, Emission Statements, (adopted November 18, 1992)
- District Rule 2010, <u>Permits Required</u>, (amended December 17, 1992)
- District Rule 2031, Transfer of Permits, (amended December 17, 1992)
- District Rule 2040, <u>Applications</u>, (amended December 17, 1992)

- District Rule 2070, <u>Standards for Granting Applications</u>, (amended December 17, 1992)
- District Rule 2080, Conditional Approval, (amended December 17, 1992)
- District Rule 2520, <u>Federally Mandated Operating Permits</u>, Sections 5.2, 9.1.1, 9.4, 9.5, 9.7, 9.8, 9.9, 9.13.1, 9.13.2, 9.16, and 10.0, (amended June 21, 2001)
- District Rule 4101, <u>Visible Emissions</u>, (amended November 15, 2001 ⇒ amended February 17, 2005)
- District Rule 4601, <u>Architectural Coatings</u>, (amended October 31, 2001 ⇒ amended December 17, 2009)
- District Rule 8021, <u>Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities</u>, (adopted November 15, 2001; amended August 19, 2004)
- District Rule 8031, <u>Bulk Materials</u>, (adopted November 15, 2001; amended August 19, 2004)
- District Rule 8041, <u>Carryout and Trackout</u>, (adopted November 15, 2001; amended August 19, 2004)
- District Rule 8051, <u>Open Areas</u>, (adopted November 15, 2001; amended August 19, 2004)
- District Rule 8061, <u>Paved and Unpaved Roads</u>, (adopted November 15, 2001; amended August 19, 2004)
- District Rule 8071, <u>Unpaved Vehicle/Equipment Traffic Areas</u>, (adopted November 15, 2001; amended September 16, 2004)
- 40 CFR Part 61, Subpart M, <u>National Emission Standard for Asbestos</u>, (amended September 18, 2003)
- 40 CFR Part 82, Subpart B, <u>Stratospheric Ozone</u>, (amended November 9, 2007)
- 40 CFR Part 82, Subpart F, <u>Stratospheric Ozone</u>, (amended June 8, 2008)

#### Rules Not Addressed by General Permit Template

#### A. Rules Updated

- District Rule 2020, <u>Exemptions</u>, (amended July 21, 1994 ⇒ amended August 18, 2011)
- District NSR Rule (Rule 2201), <u>New and Modified Stationary Source</u> <u>Review Rule</u> (amended April 21, 2011)
- District Rule 4703, <u>Stationary Gas Turbines</u> (amended April 25, 2002 ⇒ amended September 20, 2007)
- 40 CFR 72 Subpart A, Acid Rain Program General Provisions

#### B. Rules Not Updated

- District Rule 1080, Source Sampling (amended December 17,1992)
- District Rule 1081, Stack Monitoring (amended December 16,1993)
- District Rule 2520, <u>Federally Mandated Operating Permits</u>, (amended June 21, 2001)
- District Rule 4201, <u>Particulate Matter Concentration</u> (amended December 17, 1992)
- District Rule 4801, Sulfur Compounds (amended December 17, 1992)<sup>6</sup>
- 40 CFR 60 Subpart GG, <u>Standards of Performance for Stationary Gas Turbines</u>
- 40 CFR 60 Subpart KKKK, <u>Standards of Performance for Stationary Gas</u>
  <u>Turbines</u>
- 40 CFR 64, Compliance Assurance Monitoring (CAM)
- 40 CFR Part 68, <u>Chemical Accident Prevention Provisions</u>

#### VII. REQUIREMENTS NOT FEDERALLY ENFORCEABLE

For each Title V source, the District issues a single permit that contains the Federally Enforceable requirements, as well as the District-only requirements. The District-only requirements are not a part of the Title V Operating Permits. The terms and conditions that are part of the facility's Title V permit are designated as "Federally Enforceable through Title V Permit".

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

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

 Condition 41 of facility wide requirements (S-1251-0-3) is based on the District Rule 4102 and will therefore not be discussed any further.

#### VIII. PERMIT REQUIREMENTS

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

#### 1. District Rule 2020 - Exemptions

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

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

District Rule 2201 has been amended since this facility's initial Title V permit was issued. This Title V permit renewal does not constitute a modification per section 3.26, defined as an action including at least one of the following items:

- Any change in hours of operation, production rate, or method of operation of an existing emissions unit, which would necessitate a change in permit conditions.
- 2) Any structural change or addition to an existing emissions unit which would necessitate a change in permit conditions. Routine replacement shall not be considered to be a structural change.
- 3) An increase in emissions from an emissions unit caused by a modification of the Stationary Source when the emissions unit is not subject to a daily emissions limitation.
- 4) Addition of any new emissions unit which is subject to District permitting requirements.
- 5) A change in a permit term or condition proposed by an applicant to obtain an exemption from an applicable requirement to which the source would otherwise be subject.

Therefore, the updated requirements of this rule are not applicable at this time.

#### 3. District Rule 2520 - Federally Mandated Operating Permits

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

#### 4. District Rule 4703, Stationary Gas Turbines

District rule 4703 was last amended on September 20, 2007 and the current version was approved into the SIP on October 21, 2009.

The purpose of this rule is to limit oxides of nitrogen (NOx) emissions from stationary gas turbine systems.

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

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

Where EFF is the higher of EFF<sub>1</sub> or EFF<sub>2</sub>, and:

$$\mathsf{EFF_1} = \frac{3,412\,\frac{\mathsf{Btu}}{\mathsf{kW}-\mathsf{hr}}}{\mathsf{Actual\,Heat\,Rate\,@\,HHV\,(\frac{\mathsf{Btu}}{\mathsf{kW}-\mathsf{hr}})}}\,\mathsf{x\,100\,,\,and\,\,\mathsf{EFF_2}} = \mathsf{EFF}_{\mathsf{MFR}}\,\frac{\mathsf{LHV}}{\mathsf{HHV}}$$

For the subject equipment, the Actual Heat Rate @ HHV is 7,815 Btu/kW-hr.

Therefore:

EFF<sub>1</sub> = 
$$\frac{3,412 \frac{Btu}{kW - hr}}{7,815 \frac{Btu}{kW - hr}} \times 100 = 43.66\%$$

$$NO_X$$
 limit utilizing EFF<sub>1</sub> =  $9 \times \left(\frac{43.66}{25}\right)$  = 15.7 ppmvd @ 15%  $O_2$ 

EFF<sub>2</sub> calculations are not necessary since Rule 4703 emission limits will be no lower than 9 ppmv  $NO_X$  and the subject turbine is limited to a maximum of 3.75 ppmv  $NO_X$  @ 15%  $O_2$  (based on a 3-hour average).

Section 5.1.2 (Tier 2) of this rule limits the  $NO_X$  emissions from combined cycle, stationary gas turbine systems rated at greater than 10 MW to 5 ppmv @ 15%  $O_2$  (Standard option). Section 7.2.1 (Table 7-1) sets a compliance date of April 30, 2004 for the Standard Option. The subject turbine is limited to a maximum of 3.75 ppmv  $NO_X$  @ 15%  $O_2$  (based on a 3-hour average) and is therefore in compliance with the Tier 2 emission limits.

Section 5.2 limits the CO emissions concentration from the subject turbine to less than 200 ppmvd @ 15% O<sub>2</sub>.

Section 5.3 provides that the emission limit requirements of sections 5.1 and 5.2 shall not apply during a transitional operation period (bypass transition period, primary re-ignition period, reduced load period, start-up or shutdown) provided an operator complies with the requirements specified below:

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

Section 6.2.1 requires the owner to operate and maintain continuous emissions monitoring equipment for  $NO_X$  and oxygen, or install and maintain APCO-approved alternate monitoring.

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

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

Section 6.2.8 requires owners or operators performing startups or shutdowns to keep records of the duration of each startup and shutdown. Section 6.3.1 states that the owner or operator of any stationary gas turbine system subject to the provisions of Section 5.0 of this rule shall provide source test information annually regarding the exhaust gas  $NO_X$  and CO concentrations.

Section 6.3.1 requires that the owner or operator of any stationary gas turbine systems subject to the provisions of Section 5.0 of this rule shall provide source test information annually regarding the exhaust gas NOx and CO concentrations.

Section 6.4 requires that the following test methods, unless otherwise approved by the APCO and EPA, shall be used to demonstrate compliance:

- Oxides of nitrogen emissions for compliance tests shall be determined by using EPA Method 7E or EPA Method 20.
- Carbon monoxide emissions for compliance tests shall be determined by using EPA Test Methods 10 or 10B.
- Oxygen content of the exhaust gas shall be determined by using EPA Methods 3, 3A, or 20.
- HHV and LHV of gaseous fuels shall be determined by using ASTM D3588-91, ASTM 1826-88, or ASTM 1945-81.

S-1251-1-8: 48 MW COGENERATION SYSTEM WITH SCR INCLUDING STEWART & STEVENSON GE LM 5000 GAS-FIRED TURBINE, HEAT RECOVERY STEAM GENERATOR, AND INLET AIR ABSORPTION CHILLER AND HEAT EXCHANGER

For this permit unit, conditions 22 through 24, 29, 37, 38, 41, and 45 through 47 on the proposed renewed permit to operate ensure compliance with the requirements of this rule.

#### 5. 40 CFR Part 64 - Compliance Assurance Monitoring

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

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

This facility has add-on controls only for NOx & CO in the form of SCR and oxidation catalysts. Therefore CAM is applicable for NOx and CO. However, since the unit has continuous emission monitors (CEMS) these pollutants, CAM is not applicable and the equipment is exempt from CAM requirements. The standard conditions that require the CEMs to be installed, calibrated, maintained, and require the data to be reported to ensure that the unit will remain exempt from CAM requirements.

#### 6. 40 CFR 72 Subpart A - Acid Rain Program General Provisions

Pursuant to 40 CFR 72.6(b)(5), this permit unit is exempt from the acid rain program provisions because it is a qualifying unit that: (i) has, as of November 15, 1990, one or more qualifying power purchase commitments to sell at least 15 percent of its total planned net output capacity; and (ii) consists of one or more units designated by the owner or operator with total installed net output capacity not exceeding 130 percent of the total planned net output capacity. If the emissions rates of the units are not the same, the Administrator may exercise discretion to designate which units are exempt.

#### IX. PERMIT SHIELD

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

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

The permit shields as granted in the Model General Permit Template are included as conditions 39 and 40 of the facility-wide requirements (S-1251-0-3).

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

The permit shields are included as conditions 48 through 50 of permit unit S-1251-1-8.

#### X. PERMIT CONDITIONS

See Attachment A - Draft Renewed Title V Operating Permit.

#### XI. **ATTACHMENTS**

- A. Renewed Title V Operating Permit
- Previous Title V Operating Permit Detailed Facility List В.
- C.

# ATTACHMENT A

Draft Renewed Title V Operating Permit

# San Joaquin Valley Air Pollution Control District

**FACILITY:** S-1251-0-3

EXPIRATION DATE: 03/31/2011

## **FACILITY-WIDE REQUIREMENTS**

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

FACILITY-WIDE REDUIREMENTS CONTINUE ON NEXT PAGE

Facility Name: MCKITTRICK LIMITED

Location: HEAVY OIL WESTERN, 4905 REWARD RD, MCKITFRICK, CA 93251

3-1251-0-3 : Aug 5 2011 4:24PM - AIYABELI

- {4370} The operator shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, or report. Support information includes copies of all reports required by the permit and, for continuous monitoring instrumentation, all calibration and maintenance records and all original strip-chart recordings. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 10. {4371} The operator shall submit reports of any required monitoring at least every six months unless a different frequency is required by an applicable requirement. All instances of deviations from permit requirements must be clearly identified in such reports. [District Rule 2520, 9.5.1] Federally Enforceable Through Title V Permit
- 11. {4372} Deviations from permit conditions must be promptly reported, including deviations attributable to upset conditions, as defined in the permit. For the purpose of this condition, promptly means as soon as reasonably possible, but no later than 10 days after detection. The report shall include the probable cause of such deviations, and any corrective actions or preventive measures taken. All required reports must be certified by a responsible official consistent with section 10.0 of District Rule 2520 (6/21/01). [District Rules 2520, 9.5.2 and 1100, 7.0] Federally Enforceable Through Title V Permit
- 12. {4373} If for any reason a permit requirement or condition is being challenged for its constitutionality or validity by a court of competent jurisdiction, the outcome of such challenge shall not affect or invalidate the remainder of the conditions or requirements in that permit. [District Rule 2520, 9.7] Federally Enforceable Through Title V Permit
- 13. {4374} It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. [District Rule 2520, 9.8.2] Federally Enforceable Through Title V Permit
- 14. {4375} The permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. [District Rule 2520, 9.8.3] Federally Enforceable Through Title V Permit
- 15. {4376} The permit does not convey any property rights of any sort, or any exclusive privilege. [District Rule 2520, 9.8.4] Federally Enforceable Through Title V Permit
- 16. {4377} The Permittee shall furnish to the District, within a reasonable time, any information that the District may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the District copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to EPA along with a claim of confidentiality. [District Rule 2520, 9.8.5] Federally Enforceable Through Title V Permit
- 17. {4378} The permittee shall pay annual permit fees and other applicable fees as prescribed in Regulation III of the District Rules and Regulations. [District Rule 2520, 9.9] Federally Enforceable Through Title V Permit
- 18. {4379} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to enter the permittee's premises where a permitted source is located or emissions related activity is conducted, or where records must be kept under condition of the permit. [District Rule 2520, 9.13.2.1] Federally Enforceable Through Title V Permit
- 19. {4380} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit. [District Rule 2520, 9.13.2.2] Federally Enforceable Through Title V Permit
- {4381} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to inspect at reasonable times any facilities, equipment, practices, or operations regulated or required under the permit. [District Rule 2520, 9.13.2.3] Federally Enforceable Through Title V Permit
- 21. {4382} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. [District Rule-2500, 9.13.2.4] 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.

Facility Name: MCKITTRICK LIMITED

Location: HEAVY OIL WESTERN,4905 REWARD RD,MCNTTRICK, CA 93251 5-1251-0-3: AUG 5-2011 4:24PM - AYABELI

- 22. {4383} No air contaminants shall be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is as dark or darker than Ringelmann #1 or equivalent to 20% opacity and greater, unless specifically exempted by District Rule 4101 (02/17/05). If the equipment or operation is subject to a more stringent visible emission standard as prescribed in a permit condition, the more stringent visible emission limit shall supersede this condition. [District Rule 4101, and County Rules 401 (in all eight counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit
- 23. {4384} No person shall manufacture, blend, repackage, supply, sell, solicit or apply any architectural coating with a VOC content in excess of the corresponding limit specified in Table of Standards 1 effective until 12/30/10 or Table of Standards 2 effective on and after 1/1/11 of District Rule 4601 (12/17/09) for use or sale within the District. [District Rule 4601, 5.1] Federally Enforceable Through Title V Permit
- 24. {4385} All VOC-containing materials subject to Rule 4601 (12/17/09) shall be stored in closed containers when not in use. [District Rule 4601, 5.4] Federally Enforceable Through Title V Permit
- 25. {4386} The permittee shall comply with all the Labeling and Test Methods requirements outlined in Rule 4601 sections 6.1 and 6.3 (12/17/09). [District Rule 4601, 6.1 and 6.3] Federally Enforceable Through Title V Permit
- 26. {4387} With each report or document submitted under a permit requirement or a request for information by the District or EPA, the permittee shall include a certification of truth, accuracy, and completeness by a responsible official. [District Rule 2520, 9.13.1 and 10.0] Federally Enforceable Through Title V Permit
- 27. {4388} If the permittee performs maintenance on, or services, repairs, or disposes of appliances, the permittee shall comply with the standards for Recycling and Emissions Reduction pursuant to 40 CFR Part 82, Subpart F. [40 CFR 82 Subpart F] Federally Enforceable Through Title V Permit
- 28. {4389} If the permittee performs service on motor vehicles when this service involves the ozone-depleting refrigerant in the motor vehicle air conditioner (MVAC), the permittee shall comply with the standards for Servicing of Motor Vehicle Air Conditioners pursuant to all the applicable requirements as specified in 40 CFR Part 82, Subpart B. [40 CFR Part 82, Subpart B] Federally Enforceable Through Title V Permit
- 29. {4390} Disturbances of soil related to any construction, demolition, excavation, extraction, or other earthmoving activities shall comply with the requirements for fugitive dust control in District Rule 8021 unless specifically exempted under Section 4.0 of Rule 8021 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8021 and 8011] Federally Enforceable Through Title V Permit
- 30. {4391} Outdoor handling, storage and transport of any bulk material which emits dust shall comply with the requirements of District Rule 8031, unless specifically exempted under Section 4.0 of Rule 8031 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8031 and 8011] Federally Enforceable Through Title V Permit
- 31. {4392} An owner/operator shall prevent or cleanup any carryout or trackout in accordance with the requirements of District Rule 8041 Section 5.0, unless specifically exempted under Section 4.0 of Rule 8041 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8041 and 8011] Federally Enforceable Through Title V Permit
- 32. {4393} Whenever open areas are disturbed, or vehicles are used in open areas, the facility shall comply with the requirements of Section 5.0 of District Rule 8051, unless specifically exempted under Section 4.0 of Rule 8051 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8051 and 8011] Federally Enforceable Through Title V Permit
- 33. {4394} Any paved road or unpaved road shall comply with the requirements of District Rule 8061 unless specifically exempted under Section 4.0 of Rule 8061 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8061 and Rule 8011] Federally Enforceable Through Title V Permit

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

Facility Name: MCKITTRICK LIMITED

Location: HEAVY OIL WESTERN, 4905 REWARD RD, MCKITTRICK, CA 93251 5-1251-0-3; Aug 5 2011 4:24PM - AIYABELI

- 34. {4395} Any unpaved vehicle/equipment area that anticipates more than 50 Average annual daily Trips (AADT) shall comply with the requirements of Section 5.1.1 of District Rule 8071. Any unpaved vehicle/equipment area that anticipates more than 150 vehicle trips per day (VDT) shall comply with the requirements of Section 5.1.2 of District Rule 8071. On each day that 25 or more VDT with 3 or more axles will occur on an unpaved vehicle/equipment traffic area, the owner/operator shall comply with the requirements of Section 5.1.3 of District Rule 8071. On each day when a special event will result in 1,000 or more vehicles that will travel/park on an unpaved area, the owner/operator shall comply with the requirements of Section 5.1.4 of District Rule 8071. All sources shall comply with the requirements of Section 5.0 of District Rule 8071 unless specifically exempted under Section 4.0 of Rule 8071 (9/16/2004) or Rule 8011 (8/19/2004). [District Rule 8071 and Rule 8011] Federally Enforceable Through Title V Permit
- 35. {4396} Any owner or operator of a demolition or renovation activity, as defined in 40 CFR 61.141, shall comply with the applicable inspection, notification, removal, and disposal procedures for asbestos containing materials as specified in 40 CFR 61.145 (Standard for Demolition and Renovation). [40 CFR 61 Subpart M] Federally Enforceable Through Title V Permit
- 36. {4397} The permittee shall submit certifications of compliance with the terms and standards contained in Title V permits, including emission limits, standards and work practices, to the District and the EPA annually (or more frequently as specified in an applicable requirement or as specified by the District). The certification shall include the identification of each permit term or condition, the compliance status, whether compliance was continuous or intermittent, the methods used for determining the compliance status, and any other facts required by the District to determine the compliance status of the source. [District Rule 2520, 9.16] Federally Enforceable Through Title V Permit
- 37. {4398} The permittee shall submit an application for Title V permit renewal to the District at least six months, but not greater than 18 months, prior to the permit expiration date. [District Rule 2520, 5.2] Federally Enforceable Through Title V Permit
- 38. {4399} When a term is not defined in a Title V permit condition, the definition in the rule cited as the origin and authority for the condition in a Title V permits shall apply. [District Rule 2520, 9.1.1] Federally Enforceable Through Title V Permit
- 39. {4400} Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following outdated SIP requirements: Rule 401 (Madera, Fresno, Kern, Kings, San Joaquin, Stanislaus, Tulare and Merced), Rule 110 (Fresno, Stanislaus, San Joaquin), Rule 109 (Merced), Rule 113 (Madera), Rule 111 (Kern, Tulare, Kings), and Rule 202 (Fresno, Kern, Tulare, Kings, Madera, Stanislaus, Merced, San Joaquin). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
- 40. {4401} Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rules 1100, sections 6.1 and 7.0 (12/17/92); 2010, sections 3.0 and 4.0 (12/17/92); 2031 (12/17/92); 2040 (12/17/92); 2070, section 7.0 (12/17/92); 2080 (12/17/92); 4101 (2/17/05); 4601 (12/17/09); 8021 (8/19/2004); 8031 (8/19/2004); 8041 (8/19/2004); 8051 (8/19/2004); 8061 (8/19/2004); and 8071 (9/16/2004). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
- 41. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- 42. When applicable to 40 CFR Part 68, a subject facility shall submit to the proper authority a Risk Management Plan when mandated by the regulation. [40 CFR Part 68] Federally Enforceable Through Title V Permit
- 43. The reporting periods for the Report of Required Monitoring and the Compliance Certification Report begin January 1 of every year, unless alternative dates are approved by the District Compliance Division. These reports are due within 30 days after the end of the reporting period. [District Rule 2520] Federally Enforceable Through Title V Permit

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

Facility Name: MCKITTRICK LIMITED

Location: HEAVY OIL WESTERN, 4905 REWARD RD, MC

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-1251-1-8

SECTION: NE13 TOWNSHIP: 30S RANGE: 21E

**EQUIPMENT DESCRIPTION:** 

48 MW COGENERATION SYSTEM WITH SCR INCLUDING STEWART & STEVENSON GE LM 5000 GAS-FIRED TURBINE, HEAT RECOVERY STEAM GENERATOR, AND INLET AIR ABSORPTION CHILLER AND HEAT EXCHANGER

### PERMIT UNIT REQUIREMENTS

- 1. Maximum heat input rating of General Electric LM 5000 gas-fired turbine engine shall not exceed 457.8 MM Btu/hr, and turbine shall be equipped with combustor steam injection and selective catalytic reduction, utilizing ammonia, for NOx control. [District NSR Rule] Federally Enforceable Through Title V Permit
- 2. Turbine engine combustor steam injection system shall be equipped with continuously recording steam to fuel injection rate monitoring system accurate to within +/- 5%. [District NSR Rule] Federally Enforceable Through Title V Permit
- 3. Unfired heat recovery steam generator shall not be designed for supplementary firing, and shall be equipped with continuously recording NOx emissions monitor located ahead of SCR catalyst and continuously recording NOx, CO and O2 monitors in exhaust stack. [District NSR Rule] Federally Enforceable Through Title V Permit
- 4. Turbine engine shall be equipped with carbon monoxide reactor of sufficient catalyst volume to meet CO and VOC emissions limits. [District NSR Rule] Federally Enforceable Through Title V Permit
- 5. Turbine lube oil reservoir shall be equipped with mist collectors with return line to the turbine lube oil reservoir.

  [District NSR Rule] Federally Enforceable Through Title V Permit
- 6. Turbine air/oil separator shall be equipped with pre-separator, heat exchanger and air/oil final separator with return lines to turbine lube oil reservoir. [District NSR Rule] Federally Enforceable Through Title V Permit
- 7. Generator lube oil reservoir shall be equipped with mist collector with return piping to generator lube oil reservoir. [District NSR Rule] Federally Enforceable Through Title V Permit
- 8. Turbine shall be equipped with continuously recording fuel gas flowmeter and turbine shall utilize only natural gas a fuel. [District NSR Rule] Federally Enforceable Through Title V Permit
- 9. Circular cross section exhaust stack (after SCR unit) shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and equipped with flow straightener, if necessary, to minimize turbulence. [District Rule 1081] Federally Enforceable Through Title V Permit
- 10. Ammonia injection grid shall be equipped with operational ammonia flowmeter and injection pressure indicator, and exhaust gas temperature at SCR catalyst inlet shall be monitored by operational temperature indicator. [District NSR Rule] Federally Enforceable Through Title V Permit
- 11. Turbine engine steam injection rate shall be maintained at a steam to fuel ratio expected to result in compliance with emissions limits, except during periods of startup and shutdown. [District NSR Rule] Federally Enforceable Through Title V Permit
- 12. All gas turbine engine exhaust shall flow through catalyst bed [District NSR Rule] Federally Enforceable Through Title V Permit

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

Facility Name: MCKITTRICK LIMITED

ocation: HEAVY OIL WESTERN, 4905 REWARD RD, MCKITTRICK, CA 93251

S-1251-1-8 : Oct 6 2011 11:51AM - AIYABEIJ

- 13. Inlet gas temperature to catalyst bed shall be maintained within the range recommended by manufacturer except during periods of startup and shutdown. [District NSR Rule] Federally Enforceable Through Title V Permit
- 14. McKittrick Limited shall monitor and record exhaust gas temperature at oxidation catalyst inlet. [District NSR Rule] Federally Enforceable Through Title V Permit
- 15. Ammonia slip shall not exceed 20 ppmv and daily compliance with ammonia slip limit shall be demonstrated by means of the calculation procedure set forth below. [District Rule 4102]
- 16. Ammonia slip shall be calculated as: slip=(a-(bxc/1,000,00)) x 1,000,000/b, where a=ammonia injection rate(lb/hr)/17(lb/lb.mol), and b=dry exhaust gas flow rate (lb/hr)/29(lb/lb.mol), and c=change in measured NOx concentration ppmv at stack O2. [District Rule 4102]
- 17. Fuel gas sulfur content shall not exceed 0.25 gr H2S/100 scf. [District NSR Rule] Federally Enforceable Through Title V Permit
- 18. Steam produced at this facility for use in oil production operations shall affect only wells connected to well vent vapor recovery systems approved by District. [District NSR Rule] Federally Enforceable Through Title V Permit
- 19. Maximum VOC emission concentration (as CH4) at turbine exhaust shall not exceed 5.33 ppmv dry at 15% O2, except during periods of startup and shutdown. (BACT requirement, only if catalyst inlet temperature exceeds 800 deg F). [District NSR Rule] Federally Enforceable Through Title V Permit
- 20. VOC emissions, including emissions from turbine and generator lube oil vents, shall not exceed 5.5 lbs/hr, except during periods of startup and shutdown. [District NSR Rule] Federally Enforceable Through Title V Permit
- 21. Emissions rate from turbine exhaust shall not exceed: 51.9 lbs PM10/day, 7.0 lbs SOx (as SO2)/day, 147.9 lbs NOx/day, 264 lbs CO/day and 130.8 lbs VOC/day. [District NSR Rule] Federally Enforceable Through Title V Permit
- 22. Emission concentration of oxides of nitrogen (as NO2) at turbine exhaust shall not exceed 3.75 ppmv dry calculated to 15% O2 averaged over a three hour period, except during periods of startup or shutdown. [District NSR Rule, 4703, 5.1, and 40 CFR 60.332(a)(1) & 60.332(a)(2)] Federally Enforceable Through Title V Permit
- 23. Emissions concentration of carbon monoxide at turbine exhaust shall not exceed 11 ppmv calculated to 15% O2 averaged over a three hour period, except during periods of startup or shutdown. [District NSR Rule, and 4703, 5.1] Federally Enforceable Through Title V Permit
- 24. Compliance with NOx (ppmv), CO (ppmv), VOC (ppmv), turbine exhaust VOC (hourly), ammonia (ppmv) emissions limits, and lube oil cooler/accumulating vent opacity shall be demonstrated by District witnessed sample collection and observation annually. [District NSR Rule and 4703] Federally Enforceable Through Title V Permit
- 25. Compliance with fuel gas sulfur content shall be demonstrated by fuel gas sample analysis at time of annual stack gas sampling. [District NSR Rule] Federally Enforceable Through Title V Permit
- 26. Any lube oil cooler/accumulating vent having visible emissions with an opacity of 5% or greater shall be tested to demonstrate compliance with VOC hourly emissions limit. Official test results/field data shall be submitted within 60 days of testing. [District Rule 1081] Federally Enforceable Through Title V Permit
- 27. A written record of the compliance demonstrations shall be maintained and made available for District inspection for a period of five years. [District NSR Rule and 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 28. McKittrick Limited shall keep accurate records of daily fuel consumption of gas turbine engine and shall make records readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
- 29. The owner or operator shall install, certify, maintain, operate and quality-assure a Continuous Emission Monitoring System (CEMS) which continuously measures and records the exhaust gas NOx and O2 concentrations. [40 CFR 60.334(b) and District Rule 4703, 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.

Facility Name: MCKITTRICK LIMITED

HEAVY OIL WESTERN, 4905 REWARD RD, MCKLEPRICK, CA 93251 Location:

1251-1-8 : Oct 8 2011 11:51AM - AIYABELI

- 30. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period or shall meet equivalent specifications established by mutual agreement of the District. the ARB and the EPA. [40 CFR 60.334(b)(2) and District Rule 1080, 6.4] Federally Enforceable Through Title V **Permit**
- 31. The NOx and O2 CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60, Appendix B Performance Specifications 2 and 3, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [40 CFR 60.334(b)(1) and, District Rule 1080, 6.3, 6.5, 6.6, & 7.2] Federally Enforceable Through Title V Permit
- 32. The CEMS shall be linked to a data logger which is compatible with the District's Data acquisition system. Upon notice by the District that the facility's CEM system is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEM data is sent to the District by a District-approved alternative method. [District Rule 1080, 7.1] Federally Enforceable Through Title V Permit
- 33. The owner or operator shall maintain CEMS records that contain the following: the occurrence and duration of any start-up, shutdown or malfunction, performance testing, evaluations, calibrations, checks, adjustments, maintenance, duration of any periods during which a continuous monitoring system or monitoring device is inoperative, and emission measurements. [40 CFR 60.7(b) and District Rule 1080, 7.3] Federally Enforceable Through Title V Permit
- 34. The owner or operator shall submit a written report of CEM operations for each calendar quarter to the APCO. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals. data and magnitude of excess NOx emissions, nature and the cause of excess (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEM was inoperative (monitor downtime), except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [40 CFR 60.334(j), (j)(5) and District Rule 1080, 8.0] Federally Enforceable Through Title V Permit
- 35. Excess emissions shall be defined as any operating hour in which 4-hour rolling average NOx concentration exceeds applicable emissions limit and a period of monitor downtime shall be any unit operating hour in which sufficient data are not obtained to validate the hour for either NOx or O2 (or both). [40 CFR 60.334(J)(1)(iii)] Federally Enforceable Through Title V Permit
- 36. APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the monitoring devices required by this rule to ensure that such devices are functioning properly. [District Rule 1080, 11.0] Federally Enforceable Through Title V Permit
- 37. {2264} Reduced Load Period shall be defined as the time during which a gas turbine is operated at less than rated capacity in order to change the exhaust gas diverter gate not exceeding one hour. [District Rule 4703, 3.19] Federally Enforceable Through Title V Permit
- 38. {2265} Thermal Stabilization Period shall be defined as the start up or shut down time during which the exhaust gas is not within the normal operating range, not to exceed two hours. [District Rule 4703, 3.25] Federally Enforceable Through Title V Permit
- 39. {2256} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
- 40. The sulfur content of each fuel source shall be: (i) documented in a valid purchase contract, a supplier certification, a tariff sheet or transportation contract or (ii) monitored weekly using ASTM Methods D4084, D5504, D6228, or Gas Processors Association Standard 2377. If H2S content is less than 0.25 gr/100 scf for 8 consecutive weeks, then the Monitoring frequency shall be every six (6) months. If any six (6) month monitoring show an exceedance, weekly monitoring shall resume. [40 CFR 60.334(h)(3) and District Rule 2520, 9.3.2] 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.

Facility Name: MCKITTRICK LIMITED

Location: HEAVY OIL WESTERN, 4905 REWARD RD, MCKITPRICK, CA 93251 5-1251-18. Oct 8 2011 11:51AM - AYABEU

- 41. Performance testing shall be conducted annually to measure NOx and CO emission concentrations using the following test methods: EPA Methods 7E or 20 for NOx emissions, EPA Methods 10 or 10B for CO emissions, EPA Methods 3, 3A, or 20 for Oxygen content of the exhaust gas. The 9-run tests shall be performed at highest physically achievable load of the gas turbine. [40 CFR 60.335(a), (b)(7) and District Rule 4703, 6.3.1, 6.4.1, 6.4.2, & 6.4.3] Federally Enforceable Through Title V Permit
- 42. The owner or operator shall be required to conform to the sampling facilities and testing procedures described in District Rule 1081, 3.0, & 6.0 (as amended 12/16/93). [District Rule 1081, 3.0 & 6.0] Federally Enforceable Through Title V Permit
- 43. The District must be notified 30 days prior to any performance testing and a test plan shall be submitted for District approval 15 days prior to such testing. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit
- 44. Performance testing shall be witnessed or authorized District personnel. Test results must be submitted to the District within 60 days of performance testing. [District Rule 1081, 7.2, 7.3] Federally Enforceable Through Title V Permit
- 45. The owner or operator of a stationary gas turbine system shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2 and 4703, 6.2.4] Federally Enforceable Through Title V Permit
- 46. Results of the CEM system shall be averaged over a three hour period, using consecutive 15-minute sampling periods in accordance with all applicable requirements of CFR 60.13. [40 CFR 60.13 and District Rule 4703, 5.1, 6.4] Federally Enforceable Through Title V Permit
- 47. Owner or operator shall maintain a stationary gas turbine system operating log that includes, on a daily basis, the actual local time start-up and stop time, length and reason for reduced load periods, total hours of operation, type and quantity of fuel used. [District Rule 4703, 6.2.6] Federally Enforceable Through Title V Permit
- 48. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Rules 404 (Madera), 406 (Fresno), and 407 (Kings, Merced, San Joaquin, Tulare, Kern, and Stanislaus). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
- 49. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: 40 CFR 60.332 (a)(1), (a)(2), 60.333 (b); 60.334(b) (b)(1), (b)(2), (h)(3), (j), (j)(1)(iii), and (j)(5), and 60.335(a), (b)(7), (b)(3), and District Rule 4703 (as amended 9/20/07), Sections 5.1.2.1, 5.2, 6.2.2, 6.2.6, 6.3, and 6.4. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
- 50. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: 40 CFR 60.7(b), 60.8, 60.13, and District Rules 1080 (as amended 12/17/92), Sections 6.3, 6.4, 6.5, 6.6, 7.1, 7.2, 7.3, 8.0, and 11.0; 1081(as amended 12/16/93), Sections 3.0, 6.0, 7.1, 7.2, and 7.3; and 4201 (as amended 12/17/92). 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: MCKITTRICK LIMITED

Location: HEAVY OIL WESTERN, 4905 REWARD RD, MC S-1251-1-8: Oct 0 2011 11:51AM - AIYABEU

# ATTACHMENT B

Previous Title V Operating Permit





# Permit to Operate

**FACILITY:** S-1251 **EXPIRATION DATE:** 03/31/2011

**LEGAL OWNER OR OPERATOR:** 

**MAILING ADDRESS:** 

MCKITTRICK LIMITED

34759 LENCIONI AVENUE

BAKERSFIELD, CA 93308

**FACILITY LOCATION:** 

HEAVY OIL WESTERN

4905 REWARD RD MCKITTRICK, CA 93251

**FACILITY DESCRIPTION:** 

**COGENERATION** 

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

**EXPIRATION DATE: 03/31/2011 FACILITY:** S-1251-0-2

## **FACILITY-WIDE REQUIREMENTS**

- 1. The owner or operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100, 6.1; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] Federally Enforceable Through Title V Permit
- 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
- 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
- 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
- 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
- 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
- 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
- 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
- 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: MCKITTRICK LIMITED

ocation: HEAVY OIL WESTERN,4905 REWARD RD,MCKITTRICK, CA 93251 1251-0-2: Aug 5 2011 4:24PM - AIYABEJ Location:

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

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

Facility Name: MCKITTRICK LIMITED

Location: HEAVY OIL WESTERN, 4905 REWARD RD, MCKITTRICK, CA 93251

S-1251-0-2 : Aug 5 2011 4:24PM - AIYABEU

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

- 36. The permittee shall submit certifications of compliance with the terms and standards contained in Title V permits. including emission limits, standards and work practices, to the District and the EPA annually (or more frequently as specified in an applicable requirement or as specified by the District). The certification shall include the identification of each permit term or condition, the compliance status, whether compliance was continuous or intermittent, the methods used for determining the compliance status, and any other facts required by the District to determine the compliance status of the source. [District Rule 2520, 9.16] Federally Enforceable Through Title V Permit
- 37. The permittee shall submit an application for Title V permit renewal to the District at least six months, but not greater than 18 months, prior to the permit expiration date. [District Rule 2520, 5.2] Federally Enforceable Through Title V Permit
- 38. When a term is not defined in a Title V permit condition, the definition in the rule cited as the origin and authority for the condition in a Title V permits shall apply. [District Rule 2520, 9.1.1] Federally Enforceable Through Title V Permit
- 39. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following outdated SIP requirements: Rule 401 (Madera, Fresno, Kern, Kings, San Joaquin, Stanislaus, Tulare and Merced), Rule 110 (Fresno, Stanislaus, San Joaquin), Rule 109 (Merced), Rule 113 (Madera), and Rule 111 (Kern, Tulare, Kings), A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
- 40. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rules 1100, sections 6.1 and 7.0 (12/17/92); 2010, sections 3.0 and 4.0 (12/17/92); 2031 (12/17/92); 2040 (12/17/92); 2070, section 7.0 (12/17/92); 2080 (12/17/92); 4101 (11/15/01); 4601, sections 5.1, 5.2, 5.3, 5.8 and 8.0 (10/31/01); 8021 (11/15/01); 8031 (11/15/01); 8041 (11/15/01); 8051 (11/15/01); 8061 (11/15/01); and 8071 (11/15/01). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
- 41. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- 42. When applicable to 40 CFR Part 68, a subject facility shall submit to the proper authority a Risk Management Plan when mandated by the regulation. [40 CFR Part 68] Federally Enforceable Through Title V Permit
- 43. The reporting periods for the Report of Required Monitoring and the Compliance Certification Report begin January 1 of every year, unless alternative dates are approved by the District Compliance Division. These reports are due within 30 days after the end of the reporting period. [District Rule 2520] Federally Enforceable Through Title V Permit

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-1251-1-7

**EXPIRATION DATE: 03/31/2011** 

SECTION: NE13 TOWNSHIP: 30S RANGE: 21E

#### **EQUIPMENT DESCRIPTION:**

48 MW COGENERATION SYSTEM WITH SCR INCLUDING STEWART & STEVENSON GE LM 5000 GAS-FIRED TURBINE, HEAT RECOVERY STEAM GENERATOR, AND INLET AIR ABSORPTION CHILLER AND HEAT **EXCHANGER** 

## PERMIT UNIT REQUIREMENTS

- Maximum heat input rating of General Electric LM 5000 gas-fired turbine engine shall not exceed 457.8 MM Btu/hr, and turbine shall be equipped with combustor steam injection and selective catalytic reduction, utilizing ammonia, for NOx control. [District NSR Rule] Federally Enforceable Through Title V Permit
- Turbine engine combustor steam injection system shall be equipped with continuously recording steam to fuel injection rate monitoring system accurate to within +/- 5%. [District NSR Rule] Federally Enforceable Through Title V Permit
- Unfired heat recovery steam generator shall not be designed for supplementary firing, and shall be equipped with continuously recording NOx emissions monitor located ahead of SCR catalyst and continuously recording NOx, CO and O2 monitors in exhaust stack. [District NSR Rule] Federally Enforceable Through Title V Permit
- Turbine engine shall be equipped with carbon monoxide reactor of sufficient catalyst volume to meet CO and VOC emissions limits. [District NSR Rule] Federally Enforceable Through Title V Permit
- Turbine lube oil reservoir shall be equipped with mist collectors with return line to the turbine lube oil reservoir. [District NSR Rule] Federally Enforceable Through Title V Permit
- Turbine air/oil separator shall be equipped with pre-separator, heat exchanger and air/oil final separator with return lines to turbine lube oil reservoir. [District NSR Rule] Federally Enforceable Through Title V Permit
- Generator lube oil reservoir shall be equipped with mist collector with return piping to generator lube oil reservoir. [District NSR Rule] Federally Enforceable Through Title V Permit
- Turbine shall be equipped with continuously recording fuel gas flowmeter and turbine shall utilize only natural gas a fuel. [District NSR Rule] Federally Enforceable Through Title V Permit
- Circular cross section exhaust stack (after SCR unit) shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and equipped with flow straightener, if necessary, to minimize turbulence. [District Rule 1081] Federally Enforceable Through Title V Permit
- 10. Ammonia injection grid shall be equipped with operational ammonia flowmeter and injection pressure indicator, and exhaust gas temperature at SCR catalyst inlet shall be monitored by operational temperature indicator. [District NSR Rule] Federally Enforceable Through Title V Permit
- 11. Turbine engine steam injection rate shall be maintained at a steam to fuel ratio expected to result in compliance with emissions limits, except during periods of startup and shutdown. [District NSR Rule] Federally Enforceable Through Title V Permit
- 12. All gas turbine engine exhaust shall flow through catalyst bed. [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: MCKITTRICK LIMITED

Location: HEAVY OIL WESTERN,4905 REWARD RD,MCKITTRICK, CA 93251 S-1251-17: Aug 5 2011 4:24PM - AIYABEU

- 13. Inlet gas temperature to catalyst bed shall be maintained within the range recommended by manufacturer except during periods of startup and shutdown. [District NSR Rule] Federally Enforceable Through Title V Permit
- 14. McKittrick Limited shall monitor and record exhaust gas temperature at oxidation catalyst inlet. [District NSR Rule] Federally Enforceable Through Title V Permit
- 15. Ammonia slip shall not exceed 20 ppmv and daily compliance with ammonia slip limit shall be demonstrated by means of the calculation procedure set forth below. [District Rule 4102]
- 16. Ammonia slip shall be calculated as: slip=(a-(bxc/1,000,00)) x 1,000,000/b, where a=ammonia injection rate(lb/hr)/17(lb/lb.mol), and b=dry exhaust gas flow rate (lb/hr)/29(lb/lb.mol), and c=change in measured NOx concentration ppmv at stack O2. [District Rule 4102]
- 17. Fuel gas sulfur content shall not exceed 0.25 gr H2S/100 scf. [District NSR Rule] Federally Enforceable Through Title V Permit
- 18. Steam produced at this facility for use in oil production operations shall affect only wells connected to well vent vapor recovery systems approved by District. [District NSR Rule] Federally Enforceable Through Title V Permit
- 19. Maximum VOC emission concentration (as CH4) at turbine exhaust shall not exceed 5.33 ppmv dry at 15% O2, except during periods of startup and shutdown. (BACT requirement, only if catalyst inlet temperature exceeds 800 deg F). [District NSR Rule] Federally Enforceable Through Title V Permit
- 20. VOC emissions, including emissions from turbine and generator lube oil vents, shall not exceed 5.5 lbs/hr, except during periods of startup and shutdown. [District NSR Rule] Federally Enforceable Through Title V Permit
- 21. Emissions rate from turbine exhaust shall not exceed: 51.9 lbs PM10/day, 7.0 lbs SOx (as SO2)/day, 147.9 lbs NOx/day, 264 lbs CO/day and 130.8 lbs VOC/day. [District NSR Rule] Federally Enforceable Through Title V Permit
- 22. Emission concentration of oxides of nitrogen (as NO2) at turbine exhaust shall not exceed 3.75 ppmv dry calculated to 15% O2 averaged over a three hour period, except during periods of startup or shutdown. [District NSR Rule, 4703, 5.1, and 40 CFR 60.332(a)(1) & 60.332(a)(2)] Federally Enforceable Through Title V Permit
- 23. Emissions concentration of carbon monoxide at turbine exhaust shall not exceed 11 ppmv calculated to 15% O2 averaged over a three hour period, except during periods of startup or shutdown. [District NSR Rule, and 4703, 5.1] Federally Enforceable Through Title V Permit
- 24. Compliance with NOx (ppmv), CO (ppmv), VOC (ppmv), turbine exhaust VOC (hourly), ammonia (ppmv) emissions limits, and lube oil cooler/accumulating vent opacity shall be demonstrated by District witnessed sample collection and observation annually. [District NSR Rule and 4703] Federally Enforceable Through Title V Permit
- 25. Compliance with fuel gas sulfur content shall be demonstrated by fuel gas sample analysis at time of annual stack gas sampling. [District NSR Rule] Federally Enforceable Through Title V Permit
- 26. Any lube oil cooler/accumulating vent having visible emissions with an opacity of 5% or greater shall be tested to demonstrate compliance with VOC hourly emissions limit. Official test results/field data shall be submitted within 60 days of testing. [District Rule 1081] Federally Enforceable Through Title V Permit
- 27. A written record of the compliance demonstrations shall be maintained and made available for District inspection for a period of five years. [District NSR Rule and 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 28. McKittrick Limited shall keep accurate records of daily fuel consumption of gas turbine engine and shall make records readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
- 29. The owner or operator shall install, certify, maintain, operate and quality-assure a Continuous Emission Monitoring System (CEMS) which continuously measures and records the exhaust gas NOx and O2 concentrations. [40 CFR 60.334(b) and District Rule 4703, 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.

S-1251-1-7 : Aug 5 2011 4:24PM - AIYABELI

- 30. The CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period or shall meet equivalent specifications established by mutual agreement of the District. the ARB and the EPA.. [40 CFR 60.334(b)(2) and District Rule 1080, 6.4] Federally Enforceable Through Title V **Permit**
- 31. The NOx and O2 CEMS shall meet the requirements in 40 CFR 60, Appendix F Procedure 1 and Part 60, Appendix B Performance Specifications 2 and 3, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [40 CFR 60.334(b)(1) and, District Rule 1080, 6.3, 6.5, 6.6, & 7.2] Federally Enforceable Through Title V Permit
- 32. The CEMS shall be linked to a data logger which is compatible with the District's Data acquisition system. Upon notice by the District that the facility's CEM system is not providing polling data, the facility may continue to operate without providing automated data for a maximum of 30 days per calendar year provided the CEM data is sent to the District by a District-approved alternative method. [District Rule 1080, 7.1] Federally Enforceable Through Title V **Permit**
- 33. The owner or operator shall maintain CEMS records that contain the following: the occurrence and duration of any start-up, shutdown or malfunction, performance testing, evaluations, calibrations, checks, adjustments, maintenance, duration of any periods during which a continuous monitoring system or monitoring device is inoperative, and emission measurements. [40 CFR 60.7(b) and District Rule 1080, 7.3] Federally Enforceable Through Title V Permit
- 34. The owner or operator shall submit a written report of CEM operations for each calendar quarter to the APCO. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess NOx emissions, nature and the cause of excess (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEM was inoperative (monitor downtime), except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [40 CFR 60.334(j), (j)(5) and District Rule 1080, 8.0] Federally Enforceable Through Title V Permit
- 35. Excess emissions shall be defined as any operating hour in which 4-hour rolling average NOx concentration exceeds applicable emissions limit and a period of monitor downtime shall be any unit operating hour in which sufficient data are not obtained to validate the hour for either NOx or O2 (or both). [40 CFR 60.334(J)(1)(iii)] Federally Enforceable Through Title V Permit
- 36. APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the monitoring devices required by this rule to ensure that such devices are functioning properly. [District Rule 1080, 11.0] Federally Enforceable Through Title V Permit
- 37. Reduced Load Period shall be defined as the time during which a gas turbine is operated at less than rated capacity in order to change the exhaust gas diverter gate not exceeding one hour. [District Rule 4703, 3.19] Federally Enforceable Through Title V Permit
- 38. Thermal Stabilization Period shall be defined as the start up or shut down time during which the exhaust gas is not within the normal operating range, not to exceed two hours. [District Rule 4703, 3.25] Federally Enforceable Through Title V Permit
- 39. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
- 40. The sulfur content of each fuel source shall be: (i) documented in a valid purchase contract, a supplier certification, a tariff sheet or transportation contract or (ii) monitored weekly using ASTM Methods D4084, D5504, D6228, or Gas Processors Association Standard 2377. If H2S content is less than 0.25 gr/100 scf for 8 consecutive weeks, then the Monitoring frequency shall be every six (6) months. If any six (6) month monitoring show an exceedance, weekly monitoring shall resume. [40 CFR 60.334(h)(3) and District Rule 2520, 9.3.2] 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.

Facility Name: MCKITTRICK LIMITED

HEAVY OIL WESTERN,4905 REWARD RD,MCKITTRICK, CA 93251 Location: S-1251-1-7 : Aug 5 2011 4:24PM - AIYABEIJ

- 41. Performance testing shall be conducted annually to measure NOx and CO emission concentrations using the following test methods: EPA Methods 7E or 20 for NOx emissions, EPA Methods 10 or 10B for CO emissions, EPA Methods 3, 3A, or 20 for Oxygen content of the exhaust gas. The 9-run tests shall be performed at highest physically achievable load of the gas turbine. [40 CFR 60.335(a), (b)(7) and District Rule 4703, 6.3.1, 6.4.1, 6.4.2, & 6.4.3] Federally Enforceable Through Title V Permit
- 42. The owner or operator shall be required to conform to the sampling facilities and testing procedures described in District Rule 1081, 3.0, & 6.0 (as amended 12/16/93). [District Rule 1081, 3.0 & 6.0] Federally Enforceable Through Title V Permit
- 43. The District must be notified 30 days prior to any performance testing and a test plan shall be submitted for District approval 15 days prior to such testing. [District Rule 1081, 7.1] Federally Enforceable Through Title V Permit
- 44. Performance testing shall be witnessed or authorized District personnel. Test results must be submitted to the District within 60 days of performance testing. [District Rule 1081, 7.2, 7.3] Federally Enforceable Through Title V Permit
- 45. The owner or operator of a stationary gas turbine system shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2 and 4703, 6.2.4] Federally Enforceable Through Title V Permit
- 46. Results of the CEM system shall be averaged over a three hour period, using consecutive 15-minute sampling periods in accordance with all applicable requirements of CFR 60.13. [40 CFR 60.13 and District Rule 4703, 5.1, 6.4] Federally Enforceable Through Title V Permit
- 47. Owner or operator shall maintain a stationary gas turbine system operating log that includes, on a daily basis, the actual local time start-up and stop time, length and reason for reduced load periods, total hours of operation, type and quantity of fuel used. [District Rule 4703, 6.2.6] Federally Enforceable Through Title V Permit
- 48. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Rules 404 (Madera), 406 (Fresno), and 407 (Kings, Merced, San Joaquin, Tulare, Kern, and Stanislaus). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
- 49. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: 40 CFR 60.332 (a)(1), (a)(2), 60.333 (b); 60.334(b) (b)(1), (b)(2), (h)(3), (j), (j)(1)(iii), and (j)(5), and 60.335(a), (b)(7), (b)(3), and District Rule 4703 (as amended 4/25/02), Sections 5.1.2.1, 5.2, 6.2.2, 6.2.6, 6.3, and 6.4. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
- 50. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: 40 CFR 60.7(b), 60.8, 60.13, and District Rules 1080 (as amended 12/17/92), Sections 6.3, 6.4, 6.5, 6.6, 7.1, 7.2, 7.3, 8.0, and 11.0; 1081(as amended 12/16/93), Sections 3.0, 6.0, 7.1, 7.2, and 7.3; and 4201 (as amended 12/17/92). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

S-1251-1-7 : Aug 5 2011 4:24PM - AIYABE

# ATTACHMENT C

**Detailed Facility List** 

SJVUAPCD SOUTHERN

S-1251-1-7

#### **Detailed Facility Report**

For Facility=1251

8/5/11 4:27 pm

Sorted by Facility Name and Permit Number

FEE

**TOTAL** 

10,215.00

**PERMIT** 

**STATUS** 

Α

MCKITTRICK LIMITED **HEAVY OIL WESTERN** 4905 REWARD RD

FAC# S 1251 STATUS:

TYPE: TOXIC ID:

TitleV 50150

EXPIRE ON: AREA: INSP. DATE: 03/31/2011 3/ 05/12

MCKITTRICK, CA 93251

PERMIT NUMBER FEE DESCRIPTION

48 MW

6613936885 TELEPHONE:

FEE

**AMOUNT** 

10,215.00

QTY

1

**FEE RULE** 

3020-08A G

48 MW COGENERATION SYSTEM WITH SCR INCLUDING STEWART & STEVENSON GE LM 5000 GAS-FIRED TURBINE, HEAT RECOVERY STEAM GENERATOR, AND INLET AIR ABSORPTION CHILLER AND

**HEAT EXCHANGER** 

**EQUIPMENT DESCRIPTION** 

Number of Facilities Reported: 1