DECEMBER 8, 2010

Mr. John Gruber
Chevron USA
PO Box 1392
Bakersfield, CA 93302

Re: Notice of Preliminary Decision - ATC / Certificate of Conformity
Facility # S-1141
Project # S-1104209

Dear Mr. Gruber:

Enclosed for your review and comment is the District's analysis of an application for Authorities to Construct for Chevron USA (Cymric Field) at Section 1, Township: 30S, Range: 21E (Sec 1Y) or Section 36, Township: 29S, Range: 21E (Sec 36W) in Kern County, CA. The project consists of adding a new scrubber serving three existing steam generators for Rule 4320 and other changes.

After addressing all comments made during the 30-day public notice and the 45-day EPA comment periods, the Authorities to Construct will be issued to the facility with Certificates of Conformity. Prior to operating with modifications authorized by the Authorities to Construct, the facility must submit an application to modify the Title V permit as an administrative amendment, in accordance with District Rule 2520, Section 11.5.

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

If you have any questions, please contact Mr. Leonard Scandura, Permit Services Manager, at (661) 392-5500.

Thank you for your cooperation in this matter.

Sincerely,

David Warner
Director of Permit Services

DW: SD/cm

Enclosures
DEC 08 2010

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

Re: Notice of Preliminary Decision - ATC / Certificate of Conformity
   Facility # S-1141
   Project # S-1104209

Dear Mr. Tollstrup:

Enclosed for your review and comment is the District's analysis of an application for Authorities to Construct for Chevron USA (Cymric Field) at Section 1, Township: 30S, Range: 21E (Sec 1Y) or Section 36, Township: 29S, Range: 21E (Sec 36W) in Kern County, CA. The project consists of adding a new scrubber serving three existing steam generators for Rule 4320 and other changes.

The public notice will be published approximately three days from the date of this letter. Please submit your written comments within the 30-day public 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, please contact Mr. Leonard Scandura, Permit Services Manager, at (661) 392-5500.

Thank you for your cooperation in this matter.

Sincerely,

David Warner
Director of Permit Services

DW: SD/cm

Enclosures
Dear Mr. Rios:

Enclosed for your review is the District’s engineering evaluation of an application for Authorities to Construct for Chevron USA (Cymric Field) at Section 1, Township: 30S, Range: 21E (Sec 1Y) or Section 36, Township: 29S, Range: 21E (Sec 36W) in Kern County, CA, which has been issued a Title V permit. Chevron USA is requesting that Certificates of Conformity, with the procedural requirements of 40 CFR Part 70, be issued with this project. The project consists of adding a new scrubber serving three existing steam generators for Rule 4320 and other changes.

Enclosed is the engineering evaluation of this application, along with the current Title V permit, and proposed Authorities to Construct # S-1141-26-35, '-26-36, '-31-36, '-31-37, '-515-12, '-515-13, & '-597-0 with Certificates of Conformity. After demonstrating compliance with the Authority to Construct, the conditions will be incorporated into the facility’s Title V permit through an administrative amendment.

Please submit your written comments on this project within the 45-day comment period that begins on the date you receive this letter. If you have any questions, please contact Mr. Leonard Scandura, Permit Services Manager, at (661) 392-5500.

Thank you for your cooperation in this matter.

Sincerely,

David Warner
Director of Permit Services

DW: SD/cm

Enclosures
NOTICE OF PRELIMINARY DECISION
FOR THE PROPOSED ISSUANCE OF
AUTHORITY TO CONSTRUCT

NOTICE IS HEREBY GIVEN that the San Joaquin Valley Air Pollution Control District solicits public comment on the proposed issuance of Authority To Construct to Chevron USA for its heavy oil facility (Cymric Field) at Section 1, Township: 30S, Range: 21E (Sec 1Y) or Section 36, Township: 29S, Range: 21E (Sec 36W) in Kern County, California. The project consists of adding a new scrubber serving three existing steam generators for Rule 4320 and other changes.

The analysis of the regulatory basis for these proposed actions, Project #S-1104209, is available for public inspection at http://www.valleyair.org/notices/public_notices_idx.htm and the District office at the address below. Written comments on the proposed initial permit must be submitted within 30 days of the publication date of this notice to DAVID WARNER, DIRECTOR OF PERMIT SERVICES, SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT, 1990 E. GETTYSBURG AVE, FRESNO, CA 93726-0244.
San Joaquin Valley Air Pollution Control District
Authority to Construct
Steam Generators for Rule 4320 Compliance

Facility Name: Chevron, USA
Mailing Address: P. O. Box 1392
Bakersfield, CA 93302
Contact Person: John Gruber
Telephone: 661-654-7144
Fax: 661-654-7606
Application #(s): S-1141-26-35/36, '-31-36/37, '-515-12/13, & '-597-0
Project #: S-1104209
Deemed Complete: September 2, 2010

I. PROPOSAL

Chevron, USA (CUSA) is requesting Authority to Construct (ATC) permits for the modification of three gas-fired steam generators and to create a "stand alone" permit for one previously approved H₂S scrubber at their Heavy Oil Western Stationary Source to comply with the applicable emission requirements of District Rule 4320, Advanced Emission Reductions Options for Boilers, Steam Generators, and Process Heaters Greater than 5.0 MMBtu/hr. CUSA is requesting ATCs for two options:

Option 1: Designate steam generators S-1141-26, '-31, and '-515 as non-compliant dormant emissions units (DEU) for Rule 4320 compliance.

Option 2: Transfer the location of units 1141-26, '-31, and '-515 and allow them to operate at the following additional locations: any quarter section of Section 1, Township: 30S, Range: 21E (Sec 1Y) or Section 36, Township: 29S, Range: 21E (Sec 36W).

Chevron proposes that steam generators 1141-26, '-31, and '-515 will be equipped with a SOₓ scrubber and a Brink Mist Eliminator (or equivalent). The scrubber will treat the exhaust vapors combusted by steam generators S-1141-26, '-31, and '-515 reducing the SOₓ emissions to 95% or to an outlet concentration not to exceed 9 ppmvd @ 3% O₂.

In order accommodate the scrubber, Chevron requests that the following upgrades may be performed on the steam generators:

- Upgrade or alter radiant and convection sections,
- Replace air/fuel mixer with "gatling gun" style air/fuel mixer,
- Replace/upgrade FGR piping and controls
• Install/replace air intake control valve and/or orifice plate restrictor
• Replace/upgrade fuel train components
• Replace blower motors with 200 hp motors

Chevron is also requesting to place specific limiting conditions (SLC) for PM_{10} and SO_{x} on the steam generator permits S-1141-26-36, '-31-37, and '-515-13. The requested limits of 110,983 lb-PM_{10}/year and 937,243 lb-SO_{x}/year is not required for any District regulation. However, the limits will be placed on the permit per Chevron's request to meet Federal Prevention of Significant Deterioration (PSD) requirements.

The H_{2}S scrubber currently listed on permits on permit S-1141-26 will remain at the current location and treat the gas prior to combustion in permit units S-1141-549, -550, -551, -552, -553, -555, -556, -557 and -558. Chevron has requested that the H_{2}S scrubber be issued its own Permit to Operate (S-1141-579).

The transfer of location within a stationary source is not a NSR modification per Rule 2201 Section 3.24.3; therefore, is District Rule 2201 does not apply to that portion of the proposal.

Issuing the existing H_{2}S scrubber a new permit is administrative and not a modification.

The installation of the scrubber and Brink Mist Eliminator is proposed solely to comply with District Rule 4320 emission requirements. Since there is a change to the method of operation of the steam generators, these changes are modifications pursuant to District Rule 2201.

CUSA received their Title V Permit on November 30, 2001. This modification can be classified as a Title V Minor Modification pursuant to Rule 2520, Section 3.20, and can be processed with a Certificate of Conformity (COC). Since the facility has specifically requested that this project be processed in that manner, the 45-day EPA comment period will be satisfied prior to the issuance of the Authority to Construct. CUSA must apply to administratively amend their Title V Operating Permit to include the requirements of the ATCs issued with this project.

Disposition of Outstanding ATCs

S-1141-26-34 will be implemented prior to or concurrently with ATC S-1141-26-36.
S-1141-31-35 will be implemented prior to or concurrently with ATC S-1141-31-37.
S-1141-511-11 will be implemented prior to or concurrently with ATC S-1141-511-13.

Appendix A – Current Permit to Operate (PTO) and un-implemented ATCs

II. APPLICABLE RULES

District Rule 2201 New and Modified Stationary Source Review Rule (12/18/08)
District Rule 2520 Federally Mandated Operating Permits (6/21/01)
District Rule 4001 New Source Performance Standards (4/14/99)
District Rule 4101 Visible Emissions (2/17/05)
District Rule 4102 Nuisance (12/17/92)
III. PROJECT LOCATION

The steam generators will be located within CUSA’s Heavy Oil Western stationary source at the Cymric Field at Section 1, Township: 30S, Range: 21E (Sec 1Y), NW/4 Section: 17, Township: 32S, Range: 23E or Section 36, Township: 29S, Range: 21E (Sec 36W). The steam generators will not be located within 1,000 feet of the outer boundary of a K-12 school. There is also no increase in emissions; therefore, the public notification requirement of California Health and Safety Code 42301.6 is not applicable to this project.

IV. PROCESS DESCRIPTION

CUSA operates permitted equipment at their Heavy Oil Central stationary source. In thermally enhanced oil recovery (TEOR), steam generators produce steam for injection into heavy crude oil bearing strata via injection wells to reduce the viscosity of the crude oil, thereby facilitating petroleum production.

Steam enhanced oil recovery requires control of air contaminants associated with produced gas (and steam). CUSA operates tank vapor and well casing gas collection and control systems for this purpose.

V. EQUIPMENT LISTING

Pre-Project Equipment Description (base for this project):

S-1141-26-34: 62.5 MMBTU/HR STRUTHERS THERMOFLOOD NATURAL GAS/TEOR GAS/TVC VAPORS-FIRED STEAM GENERATOR WITH A NORTH AMERICAN MODEL GLE 4231 ULTRA-LOW NOX BURNER, FGR, A THERMOX 02 CONTROLLER, VAPOR PIPING FROM TEOR SYSTEM, VAPOR PIPING FROM TVC SYSTEMS, AND A SULFA SCRUB HYDROGEN SULFIDE (H2S) SYSTEM (COMMON TO -31, -549, -550, -551, -552, -553, -555, -556, -557 AND -558) (#48, DIS #20660-81, NATIONAL BOARD #1041)

S-1141-31-35: 62.5 MMBTU/HR NATURAL GAS/TEOR/TVC GAS FIRED CE NATCO STEAM GENERATOR #59 (DIS# 20639-81, NATIONAL BOARD #1352),
WITH NORTH AMERICAN MAGNA-FLAME GLE ULTRA-LOW NOX BURNER, O2 CONTROLLER AND FGR

S-1141-515-11: 62.5 MMBTU/HR NATURAL GAS/TEOR GAS-FIRED SMITH MOON STEEL STEAM GENERATOR N.B. #826 WITH FGR AND O2 ANALYZER/CONTROLLER

Proposed Modification:

Option 1 (Designate as Dormant Emissions Unit)

S-1141-26-35, '31-36 and '51-12:

DESIGNATE AS DORMANT FOR RULE 4320 COMPLIANCE

Option 2 (Install SO₂ Scrubber)

S-1141-26-36, '31-37 and '51-13:

LIMIT FUEL GAS SULFUR CONTENT TO 5 GR-S/100 SCF OR REDUCE SOX BY 95% VIA AN EXHAUST SO2 SCRUBBER WITH A BRINK MIST ELIMINATOR (OR EQUIVALENT) SHARED BY UNITS S-1141-26, S-1141-31, AND S-1141-515, REPLACE/UPGRADE STEAM PIPING, REPLACE/UPGRADE BLOWER, FGR, AND AIR INTAKE COMPONENTS (IF NECESSARY), REPLACE/UPGRADE FUEL TRAIN COMPONENTS, ADD ADDITIONAL VARIOUS SPECIFIED OPERATING LOCATIONS, AND REMOVE REFERENCES AND CONDITIONS TO SULFA SCRUB H₂S SYSTEM.

Post Project Equipment Description:

Option 1 (Designate as Dormant Emissions Unit)

S-1141-26-35: 62.5 MMBTU/HR STRUTHERS THERMOFLOOD NATURAL GAS/TEOR GAS/TVC VAPORS-FIRED STEAM GENERATOR WITH A NORTH AMERICAN MODEL GLE 4231 ULTRA-LOW NOX BURNER, FGR, A THERMOX O2 CONTROLLER, VAPOR PIPING FROM TEOR SYSTEM, VAPOR PIPING FROM TVC SYSTEMS, AND AN EXHAUST SO₂ SCRUBBER WITH A BRINK MIST ELIMINATOR (OR EQUIVALENT) SHARED WITH UNITS S-1141-31, AND S-1141-515 (#48, DIS #20660-81, NATIONAL BOARD #1041)

S-1141-31-36: 62.5 MMBTU/HR NATURAL GAS/TEOR/TVC GAS FIRED CE NATCO STEAM GENERATOR #59 (DIS# 20639-81, NATIONAL BOARD #1352), WITH NORTH AMERICAN MAGNA-FLAME GLE ULTRA-LOW NOX BURNER, O2 CONTROLLER AND FGR
S-1141-515-12: 62.5 MMBTU/HR NATURAL GAS/TEOR GAS-FIRED SMITH MOON STEEL STEAM GENERATOR N.B. #826 WITH FGR, O2 ANALYZER/CONTROLLER AND SHARED EXHAUST SO2 SCRUBBER WITH A BRINK MIST ELIMINATOR (OR EQUIVALENT) LISTED ON PREMIT S-1141-26

**Option 2 (Install SO2 Scrubber)**

S-1141-26-36: 62.5 MMBTU/HR STRUTHERS THERMOFLOOD NATURAL GAS/TEOR GAS/TVC VAPORS-FIRED STEAM GENERATOR (#48, DIS #20660-81, NATIONAL BOARD #1041) WITH A NORTH AMERICAN MODEL GLE 4231 ULTRA-LOW NOX BURNER, FGR, A THERMOX O2 CONTROLLER, VAPOR PIPING FROM TEOR SYSTEM, AND VAPOR PIPING FROM TVC SYSTEMS, SERVED BY EXHAUST SO2 SCRUBBER WITH A BRINK MIST ELIMINATOR (OR EQUIVALENT) SHARED WITH STEAM GENERATORS S-1141-32 AND '-515

S-1141-31-37: 62.5 MMBTU/HR NATURAL GAS/TEOR/TVC GAS FIRED CE NATCO STEAM GENERATOR #59 (DIS# 20639-81, NATIONAL BOARD #1352), WITH NORTH AMERICAN MAGNA-FLAME GLE ULTRA-LOW NOX BURNER, AND O2 CONTROLLER, FGR SERVED BY SCRUBBER LISTED ON S-1141-26

S-1141-515-13: 62.5 MMBTU/HR NATURAL GAS/TEOR GAS-FIRED SMITH MOON STEEL STEAM GENERATOR N.B. #826 WITH FGR, AND O2 ANALYZER/CONTROLLER SERVED BY SCRUBBER LISTED ON S-1141-26

S-1141-597-0: SULFA SCRUB HYDROGEN SULFIDE (H2S) SYSTEM SERVING STEAM GENERATORS S-1141-549, -550, -551, -552, -553, -555, -556, -557 AND -558

**VI. EMISSION CONTROL TECHNOLOGY EVALUATION**

The combustion equipment in this project is capable of generating NOx, CO, VOC, PM10 and SOx emissions due to the combustion of natural gas/TEOR/TVC.

SOx emissions are reduced by 95% or limited to 9 ppmv @ 3% O2 with the use of a scrubber.

Low-NOx burners reduce NOx formation by producing lower flame temperatures (and longer flames) than conventional burners. Conventional burners thoroughly mix all the fuel and air in a single stage just prior to combustion, whereas low-NOx burners delay the mixing of fuel and air by introducing the fuel (or sometimes the air) in multiple stages. Generally, in the first combustion stage, the air-fuel mixture is fuel rich. In a fuel rich environment, all the oxygen will be consumed in reactions with the fuel, leaving no excess oxygen available to react with nitrogen to produce thermal NOx. In the secondary and tertiary stages, the combustion zone is maintained in a fuel-lean environment. The excess air in these stages helps to reduce the
flame temperature so that the reaction between the excess oxygen with nitrogen is minimized.

The use of FGR can reduce nitrogen oxides (NO$_x$) emissions by 60% to 70%. In an FGR system, a portion of the flue gas is re-circulated back to the inlet air. As flue gas is composed mainly of nitrogen and the products of combustion, it is much lower in oxygen than the inlet air and contains virtually no combustible hydrocarbons to burn. Thus, flue gas is practically inert. The addition of an inert mass of gas to the combustion reaction serves to absorb heat without producing heat, thereby lowering the flame temperature. Since thermal NO$_x$ is formed by high flame temperatures, the lower flame temperatures produced by FGR serve to reduce thermal NO$_x$.

An electronic O2 controller in connection with a programmable logic controller (PLC) monitors and precisely adjusts the amount of excess combustion air and recirculated flue gas necessary for a stable combustion flame.

VII. GENERAL CALCULATIONS

Option 1 (Designate as Dormant Emissions Unit)

This project does not meet the criteria for a Rule 2201 Modification, as defined in Section 3.26, and is therefore not subject to the requirements of Rule 2201. Therefore, formal calculations for Rule 2201 are not required.

As Rule 4320 has various compliance options, the Rule 4320 compliant potential to emit for this unit is not known at this time, i.e. it will be established when modifications are made to achieve compliance with the emission limits in Rule 4320. As such, the emissions from PAS for the existing unit will be entered into PAS for these ATCs.

Option 2 (Install SO$_2$ Scrubber):

Permit Unit S-1141-597-0:

As the VOC content of the vapors, associated with the scrubber, is less than 10% by weight, there are no fugitive emissions from the components. Therefore, this the scrubber is not being modified as defined in Section 3.25 of Rule 2201 and no emissions changes are quantified.

Assumptions

Permit Unit S-1141-26-36, '31-37, and '51-13:

- Steam generators operate 24 hours/day and 365 days/week.
- Steam generators are fired exclusively on gaseous fuels.
- There will be no change in current permitted emissions rates, daily and annual potential to emit for CO, VOC, or PM10.
- There will be no change in the NO$_x$ permitted emissions rates from ATCs S-1141-26-34, '31-35, and '511-11 (9 ppmv @ 3% O2).
- Fuel gas sulfur content limited to 5 gr/100 scf unless SOx emissions are reduced by 95% or 9 ppmv @3% O2 in the exhaust (from project 1094822: 1.644 lb/MMBtu to 1.94 lb/MMBtu)
- Annual emissions from S-1141-26-36, -31-37, and -515-13 will be limited to 110,983 lb-PM/ year and 937,243 lb-SOx/year.
- Higher start-up and shutdown emissions are allowed for NOx and CO
- Natural Gas Heating Value: 1,000 Btus/scf (District Practice)
- F-Factor for Natural Gas: 8,578 dscf/MMBtu corrected to 60°F (40 CFR 60, Appendix B)

B. Emission Factors

Option 2 (install SOx Scrubber)

Pre-Project Emission Factors (EF1) – from the base documents (existing ATCs)

<table>
<thead>
<tr>
<th></th>
<th>NOx</th>
<th>SOx</th>
<th>PM10</th>
<th>CO</th>
<th>VOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1141-26-34</td>
<td>NOx = 15 ppmv @ 3% O2 (0.0182 lb/MMBtu)</td>
<td></td>
<td></td>
<td>51 ppmv @ 3% O2 0.0375 lb/MMBtu</td>
<td>0.005 lb/MMBtu</td>
</tr>
<tr>
<td></td>
<td>During start-up/shutdown: NOx = 0.1 lb/MMBtu</td>
<td>1.94 lb/MMBtu</td>
<td>0.096 lb/MMBtu</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S-1141-31-35</td>
<td>NOx = 15 ppmv @ 3% O2 (0.0182 lb/MMBtu)</td>
<td></td>
<td></td>
<td>37 ppmv @ 3% O2 0.027 lb/MMBtu</td>
<td>0.006 lb/MMBtu</td>
</tr>
<tr>
<td></td>
<td>During start-up/shutdown: NOx = 0.1 lb/MMBtu</td>
<td>1.94 lb/MMBtu</td>
<td>0.096 lb/MMBtu</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S-1141-515-11</td>
<td>NOx = 15 ppmv @ 3% O2 (0.0182 lb/MMBtu)</td>
<td></td>
<td></td>
<td>51 ppmv @ 3% O2 0.0375 lb/MMBtu</td>
<td>0.005 lb/MMBtu</td>
</tr>
<tr>
<td></td>
<td>During start-up/shutdown: NOx = 0.1 lb/MMBtu</td>
<td>1.644 lb/MMBtu</td>
<td>0.096 lb/MMBtu</td>
<td></td>
<td></td>
</tr>
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Post-Project Emission Factors (EF2)

<table>
<thead>
<tr>
<th></th>
<th>NOx</th>
<th>SOx</th>
<th>PM10</th>
<th>CO</th>
<th>VOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1141-26-35</td>
<td>NOx = 15 ppmv @ 3% O2 (0.0182 lb/MMBtu)</td>
<td></td>
<td></td>
<td>51 ppmv @ 3% O2 0.0375 lb/MBtu</td>
<td>0.005 lb/MBtu</td>
</tr>
<tr>
<td></td>
<td>During start-up/shutdown: NOx = 0.1 lb/MBtu</td>
<td>1.94 lb/MBtu</td>
<td>0.096 lb/MBtu</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S-1141-31-36</td>
<td>NOx = 15 ppmv @ 3% O2 (0.0182 lb/MBtu)</td>
<td></td>
<td></td>
<td>37 ppmv @ 3% O2 0.027 lb/MBtu</td>
<td>0.006 lb/MBtu</td>
</tr>
<tr>
<td></td>
<td>During start-up/shutdown: NOx = 0.1 lb/MBtu</td>
<td>1.94 lb/MBtu</td>
<td>0.096 lb/MBtu</td>
<td>NOx = 15 ppmv @ 3% O2 (0.0182 lb/MBtu)</td>
<td></td>
</tr>
<tr>
<td>S-1141-515-12</td>
<td>NOx = 15 ppmv @ 3% O2 (0.0182 lb/MBtu)</td>
<td></td>
<td></td>
<td>51 ppmv @ 3% O2 0.0375 lb/MBtu</td>
<td>0.0056 lb/MBtu</td>
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<td></td>
<td>During start-up/shutdown: NOx = 0.1 lb/MBtu</td>
<td>1.644 lb/MBtu</td>
<td>0.096 lb/MBtu</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

C. Calculations

1. **Pre-Project Potential to Emit (PE1)**
   
   The PE1 for each pollutant is calculated using the following equation. The results are summarized in the table below:

   - \( \text{PE1} = \text{EF1} \times \text{Heat Input} \times \text{Op. Sched} \)

   \( \text{EF1} = \text{lb/MBtu} \times \text{MMBtu/hr} \times \text{hr/day or hr/year} \)
Daily PE1 (lb/day):

<table>
<thead>
<tr>
<th></th>
<th>NOx</th>
<th>SOx</th>
<th>PM10</th>
<th>CO</th>
<th>VOC</th>
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</thead>
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<tr>
<td>S-1141-26-34</td>
<td>54.0</td>
<td>2,910.0</td>
<td>144.0</td>
<td>56.3</td>
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<tr>
<td>S-1141-31-35</td>
<td>54.0</td>
<td>2,910.0</td>
<td>144.0</td>
<td>40.5</td>
<td>9.0</td>
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<tr>
<td>S-1141-515-11</td>
<td>32.7</td>
<td>2,466.0</td>
<td>144.0</td>
<td>41.0</td>
<td>8.4</td>
</tr>
</tbody>
</table>

1Start-up and Shutdown Emissions (lb/day)

Chevron is allowed greater start-up/shutdown NOx emissions than normal operating emissions (limited by permit condition).

Annual PE1 (lb/yr):

<table>
<thead>
<tr>
<th></th>
<th>NOx</th>
<th>SOx</th>
<th>PM10</th>
<th>CO</th>
<th>VOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1141-26-34</td>
<td>9965</td>
<td>1,062,150</td>
<td>52,560</td>
<td>20,531</td>
<td>2,738</td>
</tr>
<tr>
<td>S-1141-31-35</td>
<td>9965</td>
<td>1,062,150</td>
<td>52,560</td>
<td>9,966</td>
<td>3,285</td>
</tr>
<tr>
<td>S-1141-515-11</td>
<td>9965</td>
<td>900,090</td>
<td>52,560</td>
<td>20,531</td>
<td>3,066</td>
</tr>
<tr>
<td>Total</td>
<td>29,895</td>
<td>3,024,390</td>
<td>157,680</td>
<td>51,028</td>
<td>9,089</td>
</tr>
</tbody>
</table>

2. Post-Project Potential to Emit (PE2)

Chevron has opted to comply with the PM_{10} of Rule 4320 by controlling the SOX emissions by 95%. Because the SOX emissions may vary the current SOX emissions will remain on the ATC to ensure that there is not an increase in emission; therefore, PE2 = PE1 for all criteria pollutants.

The start-up/shutdown emissions for NOx will be the same as the existing ATCs and will be retained in the new ATCs.

However, the applicant has requested the units will have a SLC of 110,983 lb-PM_{10}/year and 937,243 lb-SOX/year to satisfy Federal PSD requirements.

3. Pre-Project Stationary Source Potential to Emit (SSPE1)

SSPE1 calculations are necessary to aid the following determinations:

- If the facility is becoming a new Major Source,
- An offset threshold will be surpassed, or
- A Stationary Source Increase in Permitted Emissions (SSIPE) public notice is triggered

Pursuant to Section 4.9 of District Rule 2201, the Pre-Project Stationary Source Potential to Emit (SSPE1) is the Potential to Emit (PE) from all units with valid
Authorities to Construct (ATC) or Permits to Operate (PTO) at the Stationary Source and the quantity of emission reduction credits (ERC) which have been banked since September 19, 1991 for Actual Emissions Reductions that have occurred at the source, and which have not been used on-site.

Facility emissions are already above the Offset and Major Source Thresholds for all the criteria pollutants. There is no increase in potential emissions for any of the units, for any pollutant in this project; therefore, SSPE1 calculations are not necessary.

4. Post-Project Stationary Source Potential to Emit (SSPE2)

SSPE2 calculations are necessary to aid the following determinations:

- If the facility is becoming a new Major Source,
- An offset threshold will be surpassed, or
- An SSPE public notice is triggered

Pursuant to Section 4.10 of District Rule 2201, the Post-Project Stationary Source Potential to Emit (SSPE2) is the Potential to Emit (PE) from all units with valid Authorities to Construct (ATC) or Permits to Operate (PTO) at the Stationary Source and the quantity of emission reduction credits (ERC) which have been banked since September 19, 1991 for Actual Emissions Reductions that have occurred at the source, and which have not been used on-site.

Facility emissions are already above the Offset and Major Source Thresholds for all the criteria pollutants. There is no increase in potential emissions for any of the units, for any pollutant in this project. The potential to emit NOx will decrease in accordance with District Rule 4320. Therefore, SSPE2 calculations are not necessary.

5. Major Source Determination

Pursuant to Section 3.24 of District Rule 2201, a major source is a stationary source with a Post-Project Stationary Source Potential to Emit (SSPE2), equal to or exceeding one or more of the Major Source threshold values (excluding ERCs banked onsite that have not been used onsite).

This source is an existing Major Source for all the criteria pollutants and will remain so. No change in Major Source status is proposed or expected as a result of this project.

6. Baseline Emissions (BE)

The BE calculation (in lbs/year) is performed pollutant-by-pollutant for each unit within the project, to calculate the QNEC and if applicable, to determine the amount of offsets required. This project is exempt from offset requirements; therefore, for QNEC calculations, BE = PE1.
7. SB 288 Major Modification

An SB 288 Major Modification is a Major Modification as defined in 40 CFR Part 51.165 (in effect on 12-19-2002) as "any physical change in or change in the method of operation of a major stationary source that would result in a significant net emissions increase of any pollutant subject to regulation under the Act."

Significant is defined under Part 51.165(x) as a net emissions increase in the potential of a source to emit any affected pollutant equal to or exceeding any applicable thresholds. For existing major sources in the San Joaquin Valley Air Basin, which is non-attainment for Ozone and PM10, a major modification occurs if the Net Emissions Increases (NEI) is equal to or greater than one or more of the following threshold values when calculated on actual to PE basis:

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Project PE (lb/year)</th>
<th>Threshold (lb/year)</th>
<th>Major Modification?</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOx</td>
<td>&gt;50,000</td>
<td>50,000</td>
<td>Yes</td>
</tr>
<tr>
<td>SOx</td>
<td>&gt;80,000</td>
<td>80,000</td>
<td>Yes</td>
</tr>
<tr>
<td>PM10</td>
<td>&gt;30,000</td>
<td>30,000</td>
<td>Yes</td>
</tr>
<tr>
<td>VOC</td>
<td>&gt;50,000</td>
<td>50,000</td>
<td>Yes</td>
</tr>
</tbody>
</table>

8. Federal Major Modification

Pursuant to Rule 2201 Section 3.17, to determine if a project is a Federal major modification, the calculation procedure in 40 CFR 51.165(a)(2)(ii) shall be used.

The steam generators associated with this District (project S-1104209) are part of a larger project resulting in Chevron's steam generators coming in compliance with Rule 4320.

This calculation procedure outline in Draft District Policy, Implementation of Rule 2201 (as amended on 12/18/08 and effective on 6/10/10) for SB288 Major Modifications and Federal Major Modifications, states "that an SB 288 Major Modification is not a Federal Major Modification if the emission increase for the project or the net emission increase for the facility (calculated pursuant to 40 CFR 51.165 (a)(2)(ii)(B) through (D) and (F)) does not result in a significant emission increase" per Rule 2201 Table 3-1.

The proposed modification in Chevron's steam generators for Rule 4320 compliance does not result in an increase in design capacity, an increase in potential to emit, and it does not impact the ability of the emission unit to operate at

---

1 Due to the large number of affected units proposed by CUSA for facilities S-1127, S-1131 and S-1141 for Rule 4320 compliance, this project in conjunction with others (and considering that boilers and steam generators typically have actual emissions below their permitted emission levels) is presumed to cross one or more major modification thresholds.
a higher utilization rate. Therefore, the unused baseline capacity emissions can also be excluded from the emission increase (EI) and the emission increase is calculated as follows:

Emission increase = PAE – BAE – unused baseline capacity emissions

However, the proposed modifications do not result in an increase in design capacity or potential to emit, and they do not impact the ability of the emission unit to operate at a higher utilization rate (and there are no existing physical or legal limitations on the unit’s ability to operate at a higher utilization rate); therefore, the emission increase is presumed to be 0 and no detailed calculations are required.

For the reasons stated above, this rule compliance project will not result in a significant emission increase and therefore is not a Federal major modification.

9. Quarterly Net Emissions Change (QNEC)

The QNEC is used to complete the emission profile for the District’s PAS database. The QNEC for each unit is calculated as the difference between the quarterly PE2 and the quarterly BE, which in this project is the PE1, as discussed in VII (C)(6) above.

\[
\text{QNEC (lb/qtr)} = \frac{\text{PE2 (lb/yr)} - \text{PE1 (lb/yr)}}{4}
\]

There is no change in emissions for the criteria pollutants for both options; therefore, only the QNEC for NOx is calculated.

<table>
<thead>
<tr>
<th>SOx</th>
<th>PE2 (lb/yr)</th>
<th>PE1 (lb/yr)</th>
<th>QNEC (lb/qtr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1141-26-36/37</td>
<td>1,062,150</td>
<td>1,062,150</td>
<td>0</td>
</tr>
<tr>
<td>S-1141-31-37/28</td>
<td>1,062,150</td>
<td>1,062,150</td>
<td>0</td>
</tr>
<tr>
<td>S-1141-515-12/13</td>
<td>900,090</td>
<td>900,090</td>
<td>0</td>
</tr>
<tr>
<td>S-1141-597-0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

VIII. COMPLIANCE

District Rule 2201 New and Modified Stationary Source Review Rule

Option 1 (Designate as Dormant Emissions Unit)

Designating emissions units as dormant does not meet the following criteria for a Modification, as defined in Section 3.26, and is therefore not subject to this rule.

- 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.
- 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.
• 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.
• Addition of any new emissions unit which is subject to District permitting requirements.
• 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.

Option 2 (Install SO₂ Scrubber)

A. Best Available Control Technology (BACT)

1. BACT Applicability

BACT requirements are triggered on a pollutant-by-pollutant basis and on an emissions unit-by-emissions unit basis for the following*:

a. Any new emissions unit with a potential to emit exceeding two pounds per day,  
b. The relocation from one Stationary Source to another of an existing emissions unit with a potential to emit exceeding two pounds per day,  
c. Modifications to an existing emissions unit with a valid Permit to Operate resulting in an AlPE exceeding two pounds per day, and/or  
d. Any new or modified emissions unit, in a stationary source project, which results in a Major Modification.

*Except for CO emissions from a new or modified emissions unit at a Stationary Source with an SSPE2 of less than 200,000 pounds per year of CO.

However, BACT shall not be required for the following:

4.2.3 For existing facilities, the installation or modification of an emission control technique performed solely for the purpose of compliance with the requirements of District, State or Federal air pollution control laws, regulations, or orders, as approved by the APCO, shall be exempt from Best Available Control Technology for all air pollutants, provided all of the following conditions are met:

4.2.3.1 There shall be no increase in the physical or operational design of the existing facility, except for those changes to the design needed for the installation or modification of the emission control technique itself;
4.2.3.2 There shall be no increase in the permitted rating or permitted operating schedule of the permitted unit;
4.2.3.3 There shall be no increase in emissions from the stationary source that will cause or contribute to any violation of a National Ambient Air Quality Standard, Prevention of Significant Deterioration increment, or Air Quality Related Value in Class I areas; and
4.2.3.4 The project shall not result in an increase in permitted emissions or potential to emit of more than 25 tons per year of NOₓ, or 25 tons per year of VOC, or 15 tons per year of SOₓ, or 15 tons per year of PM10, or 50 tons per year of CO.
Since each of the above-listed criteria are met, BACT is not triggered for any pollutant.

2. BACT Guideline and Top-Down Analysis

Since BACT is not triggered, the proposed operation is not subject to any BACT guideline or top-down analysis. No further discussion is required.

B. Offsets

1. Offset Applicability

The proposed modifications are solely for compliance with Rule 4320, and are exempt from offsets if the following criteria are satisfied. Rule 2201, Section 4.6.8 provides the following exemption from offsets.

Emission offsets shall not be required for the following:

4.6.8 For existing facilities, the installation or modification of an emission control technique performed solely for the purpose of compliance with the requirements of District, State or Federal air pollution control laws, regulations, or orders, as approved by the APCO, shall be exempt from offset requirements for all air pollutants provided all of the following conditions are met:

4.6.8.1 There shall be no increase in the physical or operational design of the existing facility, except for those changes to the design needed for the installation or modification of the emission control technique itself;

4.6.8.2 There shall be no increase in the permitted rating or permitted operating schedule of the permitted unit;

4.6.8.3 There shall be no increase in emissions from the stationary source that will cause or contribute to any violation of a National Ambient Air Quality Standard, Prevention of Significant Deterioration increment, or Air Quality Related Value in Class I areas; and

4.6.8.4 The project shall not result in an increase in permitted emissions or potential to emit of more than 25 tons per year of NOx, or 25 tons per year of VOC, or 15 tons per year of SOx, or 15 tons per year of PM-10, or 50 tons per year of CO.

Since the above-listed criteria are met, offsets are not required for any pollutant.

2. Quantity of Offsets Required

As seen above, the project meets the exemption requirements of section 4.6.8 of District Rule 2201; therefore, offset calculations are not necessary and offsets are not required for this project.
C. Public Notification

1. Applicability

Public noticing is required for:

a. Any new Major Source, which is a new facility that is also a Major Source,
b. Federal Major Modifications and SB 288 Major Modifications
c. Any new emissions unit with a Potential to Emit greater than 100 pounds during any one day for any one pollutant,
d. Any project which results in the offset thresholds being surpassed, and/or
e. Any project with an SSPE of greater than 20,000 lb/year for any pollutant.

a. New Major Source

As demonstrated in section VII.C.5 above, the facility is not becoming a Major Source as a result of this project.

b. Federal Major Modifications and SB 288 Major Modifications

As demonstrated in VII.C.7, this project constitutes a SB 288 Major Modification; therefore, public noticing for Major Modification purposes is required.

As demonstrated in VII.C.8, this project does not constitute a Federal Major Modification; therefore, public noticing for Major Modification purposes is not required.

c. PE > 100 lb/day

Applications which include a new emissions unit with a PE greater than 100 pounds during any one day for any pollutant will trigger public noticing requirements. There are no new emissions units associated with this project; therefore, public noticing is not required for this project for Potential to Emit exceeding the 100 lb/day limit.

d. Offset Threshold

Public notification is required if the Pre-Project Stationary Source Potential to Emit (SSPE1) is increased from a level below the offset threshold to a level exceeding the emissions offset threshold, for any pollutant.

There is no increase in permitted emissions as a result of this project. Therefore, the SSPE is not increasing with this project and an offset threshold cannot be surpassed as a result of this project. A public notice will not be required for offset threshold purposes.

e. SSPE > 20,000 lb/year

An SSPE exceeding 20,000 pounds per year for any one pollutant triggers public notice, where \( SSPE = SSPE2 - SSPE1 \).
There is no increase in permitted emissions as a result of this project. Therefore, the SSIPPE is zero for all pollutants and public notice will not be required for SSIPPE purposes.

2. Public Notice Action

As discussed above, public notice will be required for this project for Major Modification purposes.

D. Daily Emission Limits (DELs)

Daily Emissions Limitations (DELs) and other enforceable conditions are required by Section 3.15 to restrict a unit’s maximum daily emissions, to a level at or below the emissions associated with the maximum design capacity. Per Sections 3.15.1 and 3.15.2, the DEL must be contained in the latest ATC and contained in or enforced by the latest PTO and enforceable, in a practicable manner, on a daily basis. DELs are also required to enforce the applicability of BACT.

The DELs for the steam generators (s-1141-26, '-31, and '-515) units are stated in the form of emission factors as shown:

- Emissions from the steam generator shall not exceed any of the following limits: X.XX lb-SOx/MBtu, 0.096 lb-PM10/MBtu, or X.XXX lb-VOC/MBtu. [District Rules 2201 and 4320] Y

- Except during start-up and shutdown periods emissions from the steam generator shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.0182 lb-NOx/MBtu or X ppmvd CO @ 3% O2 or X.XXXX lb-CO/MBtu. [District Rules 2201, 4301, 5.2, 4305, 5.1, 4306, 5.1 and 4320] Y

- During start-up and shutdown periods, emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MBtu or 0.084 lb-CO/MBtu. [District Rule 2201] Y

- Maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: XX.X lb-NOx/day, 9,965 lb-NOx/yr, XX.X lb-CO/day, and X.XXX lb-CO/yr. [District Rule 2201] Y

- Fuel gas sulfur content shall not exceed 5 gr S/100 dscf unless SOx emissions are reduced by 95% or to 9 ppmv SOx @ 3% O2 in the exhaust with scrubber. [District Rule 4320] N

E. Compliance Assurance

1. Source Testing

The units are subject to District Rule 4305, Boilers, Steam Generators and Process Heaters, Phase II, and District Rule 4306, Phase III and District Rule 4320, Advanced
Emission Reduction Options for Boilers, Steam Generators, and Process Heaters greater than 5 MMBtu/hr. Source testing requirements, in accordance with District Rules 4305, 4306, and 4320 will be discussed in Section VIII, District Rules 4305, 4306 and 4320 of this evaluation.

2. Monitoring

As required by District Rules 4305, 4306 and 4320, the units are subject to monitoring requirements. Monitoring requirements, in accordance with District Rules will be discussed in the compliance review section of this evaluation.

3. Recordkeeping

As required by District Rules 4305, 4306 and 4320, the units are subject to recordkeeping requirements. Recordkeeping requirements, in accordance with District Rules will be discussed in the compliance review of this evaluation.

The following permit condition will be listed on permit as follows:

- 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 1070, 4305, 4306 and 4320]

4. Reporting

No reporting is required to demonstrate compliance with Rule 2201.

District Rule 2520 Federally Mandated Operating Permits

CUSA has a Title V permit. The changes authorized by these ATCs constitute a minor modification of their Title V permit. The facility has requested that the ATCs be issued with a Certificate of Conformity (COC). Therefore, prior to issuance, the ATCs will undergo a 45 day EPA review. Prior to initial operation under these ATCs, the applicant must submit a Title V application for an administrative amendment, and permit conditions will be listed as follows:

- {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201]

- {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4]

District Rule 4001 New Source Performance Standards

40 CFR Part 60, Subpart Dc applies to Small Industrial-Commercial-Industrial Steam Generators between 10 MMBtu/hr and 100 MMBtu/hr (post-6/9/89 construction, modification or, reconstruction).
40 CFR Part 60, Subpart A, section 14, defines the meaning of modification to which the standards are applicable. §60.14, paragraph (e)(5) states that the following will not be considered as a modification: "the addition or use of any system or device whose primary function is the reduction of air pollutants, except when an emission control system is removed or replaced by a system which the Administrator determines to be less environmentally beneficial".

No newly constructed or reconstructed units are proposed in this project, nor is the unit being modified (as defined above); therefore, the requirements of this section do not apply to the subject units.

District Rule 4101 Visible Emissions

District Rule 4101, Section 5.0, indicates that 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 dark or darker than Ringlemann 1 or equivalent to 20% opacity. Continued compliance with the opacity limit is expected.

District Rule 4102 Nuisance

Section 4.0 prohibits discharge of air contaminants, which could cause injury, detriment, nuisance or annoyance to the public. Public nuisance conditions are not expected as a result of these operations, provided the equipment is well maintained. Therefore, compliance with this rule is expected.

California Health & Safety Code 41700 (Health Risk Assessment)

District Policy APR 1905 – Risk Management Policy for Permitting New and Modified Sources specifies that for an increase in emissions associated with a proposed new source or modification, the District perform an analysis to determine the possible impact to the nearest resident or worksite.

An HRA is not required for a project with a total facility prioritization score of less than one. According to the Technical Services Memo for this project (Appendix F), the total facility prioritization score including this project was greater than one. Therefore, a health risk assessment was required to determine the short-term acute and long-term chronic exposure from this project.

The cancer risk for this project is shown below:

<table>
<thead>
<tr>
<th>Unit</th>
<th>Cancer Risk</th>
<th>T-BACT Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1141-26, '-31, '-'515, '-'597</td>
<td>0.03 per million</td>
<td>No</td>
</tr>
</tbody>
</table>
Discussion of T-BACT

BACT for toxic emission control (T-BACT) is required if the cancer risk exceeds one in one million. As demonstrated above, T-BACT is not required for this project because the HRA indicates that the risk is not above the District’s thresholds for triggering T-BACT requirements; therefore, compliance with the District’s Risk Management Policy is expected.

District policy APR 1905 also specifies that the increase in emissions associated with a proposed new source or modification not have acute or chronic indices, or a cancer risk greater than the District’s significance levels (i.e. acute and/or chronic indices greater than 1 and a cancer risk greater than 10 in a million). As outlined by the HRA Summary in Appendix F of this report, the emissions increases for this project was determined to be less than significant.

District Rule 4201 Particulate Matter Concentration

Section 3.1 prohibits discharge of dust, fumes, or total particulate matter into the atmosphere from any single source operation in excess of 0.1 grain per dry standard cubic foot. As natural gas-fired combustion equipment emits negligible amounts of particulate matter, compliance with this rule is expected.

District Rule 4301 Fuel Burning Equipment

This rule specifies maximum emission rates in lb/hr for SO₂, NO₂, and combustion contaminants (defined as total PM in Rule 1020). This rule also limits combustion contaminants to ≤ 0.1 gr/scf. According to AP 42 (Table 1.4-2, footnote c), all PM emissions from natural gas combustion are less than 1 μm in diameter.

The maximum emission rates in lb/hr for each of the steam generator in this project are as follows:

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>NO₂</th>
<th>Total PM</th>
<th>SO₂</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATC S-1141-26</td>
<td>2.25</td>
<td>6.0</td>
<td>121.3</td>
</tr>
<tr>
<td>ATC S-1141-31</td>
<td>2.25</td>
<td>6.0</td>
<td>121.3</td>
</tr>
<tr>
<td>ATC S-1141-515</td>
<td>1.36</td>
<td>6.0</td>
<td>102.8</td>
</tr>
<tr>
<td>Rule Limit (lb/hr)</td>
<td>140</td>
<td>10</td>
<td>200</td>
</tr>
</tbody>
</table>

The above table indicates compliance with the maximum lb/hr emissions in this rule; therefore, continued compliance is expected.

District Rule 4305 Boilers, Steam Generators and Process Heaters – Phase 2

This rule limits NOx and CO emissions from boilers, steam generators, and process heaters rated greater than 5 MMBtu/hr. The subject units are currently in compliance with the applicable provisions of this rule. Source testing, monitoring and recordkeeping requirements
of Rule 4320 are equal to or more stringent than the requirements of this rule; therefore, continued compliance is expected.

District Rule 4306  Boilers, Steam Generators and Process Heaters – Phase 3

This rule limits NOx and CO emissions from boilers, steam generators, and process heaters rated greater than 5 MMBtu/hr. The subject units are currently in compliance with the applicable provisions of this rule. Source testing, monitoring and recordkeeping requirements of Rule 4320 are equal to or more stringent than the requirements of this rule; therefore, continued compliance is expected.

District Rule 4320  Advance Emission Reduction Options for Boilers, Steam Generators and Process Heaters Greater than 5 MMBtu/hr

This rule limits NOx, CO, SO2 and PM10 emissions from boilers, steam generators and process heaters rated greater than 5 MMBtu/hr. This rule also provides a compliance option of payment of fees in proportion to the actual amount of NOx emitted over the previous year.

The units in this project are all rated at greater than 5 MMBtu/hr heat input and are subject to this rule.

Option 2 (Designate as Dormant Emissions Unit)

The emission limits, monitoring provisions, and testing requirements of this rule will be satisfied when the facility applies for ATC(s) to operate in compliance with this rule. The following conditions will be incorporated into the permits S-1141-26-36, ’-31-37 and ’-515-13 to enforce the dormant emission unit status pursuant to District Policy SSP 1705. The conditions below will be placed ahead of the existing permit conditions:

- No modification to this unit shall be performed without an Authority to Construct for such modification(s), except for changes specified in conditions below. [District Rule 2010]

- The fuel supply line shall be physically disconnected from this unit. [District Rule 4320] or
The hour-meter shall not exceed a reading of XXX hours. [District Rule 4320] or
Other APCO approved method to ensure the unit is not operated. [District Rule 4320].

- This equipment shall not be operated for any reason until an Authority to Construct permit is issued approving all necessary retrofits required to comply with the applicable requirements of District Rule 4306 and all other applicable District regulations. [District Rule 4320]

Option 1 (install Scrubber)

Section 5.1 NOx Emission Limits

NOx Emissions limits were addressed in the previous ATC; therefore, compliance is expected and no discussion is required.
Section 5.4 Particulate Matter Control Requirements

Section 5.4.1 states that to limit particulate matter emissions, an operator shall comply with one of the options listed in the rule.

Section 5.4.1.1 provides option for the operator to comply with the rule by firing the unit exclusively on PUC-quality gas, commercial propane, butane, or liquefied petroleum gas, or a combination of such gases;

Section 5.4.1.2 provides option for the operator to comply with the rule by limiting the fuel sulfur content to no more than five (5) grains of total sulfur per hundred (100) standard cubic feet.

Section 5.4.1.3 provides option for the operator to comply with the rule by installing and properly operating an emissions control system that reduces SO2 emissions by at least 95% by weight; or limit exhaust SO2 to less than or equal to 9 ppmv corrected to 3 % O2.

The steam generators are approved to incinerate TEOR and TVR gas. For units S-1141-26, 31, and 5158, CUSA is proposing to apply a sulfur limit of 5 gr S/100 scf unless the SOX is reduced by 95% or 9 ppmv @ 3% O2 with a scrubber. The ATCs will have the following to ensure compliance with this section of the rule:

- Fuel gas sulfur content shall not exceed 5 gr S/100 dscf unless SOX emissions are reduced by 95% or to 9 ppmv SOX @ 3% O2 in the exhaust with scrubber. [District Rule 4320] Y

- Upon the conclusion of an initial 60 day shakedown period, the SOX scrubber's control efficiency shall not be less than 95% by weight sulfur compounds, or the SO2 concentration at the stack gas outlet shall not exceed 9 ppmvd corrected to 3.0% O2. [District Rule 2201 and 4320] Y

Section 5.7.6 requires monitoring SOX emissions. CUSA has elected to comply with Sections 5.4.1.2 and 5.4.1.3 as discussed above.

Operators complying with Section 5.4.1.2 shall shall provide an annual fuel analysis to the District unless a more frequent sampling and reporting period is included in the Permit to Operate. Therefore the following conditions will be placed on the ATC:

- PUC quality natural gas is any gaseous fuel where the sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet, no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet, and at least 80% methane by volume. [District Rule 4320]

- Fuel H2S, total sulfur, and methane content shall be determined semi-annually using the following test methods H2S: ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, double GC for H2S and mercaptans or ASTM D6228; and methane content: ASTM D1945. [District Rule 4320] N
Each fuel source shall be tested semi-annually for sulfur content and higher heating value. If a fuel content test fails to show compliance, weekly testing is required until compliance is demonstrated for 8 consecutive weeks, after which semi-annual testing may resume. [District Rules 2520, 9.3.2 and 4320, 5.7.6] Y

If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value. [District Rules 2520, 9.3.2 and 4320] Y

If the unit is not fired on PUC-regulated natural gas and compliance is achieved through fuel sulfur content limitations, then the sulfur content of the fuel shall be determined by testing sulfur content at a location after all fuel sources are combined prior to incineration, or by performing mass balance calculations based on monitoring the sulfur content and volume of each fuel source. The sulfur content of the fuel shall be determined using the test methods referenced in this permit. [District Rules 2520, 9.3.2 and 4320, 5.7.6] Y

If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by: ASTM D 1826 or D1945 in conjunction with ASTM D.

Operators complying with Section 5.4.1.3 shall perform an annual source test unless a more frequent sampling and reporting period is included in the Permit to Operate. Therefore the following conditions will be placed on the ATC:

- Source testing to demonstrate compliance with the SOx control efficiency of this permit and the SOx emissions limit (lb/MMBtu) of this permit shall be conducted 60 days after initial operation of the scrubber with the unit(s) firing or TEOR/TVC gas and at least once every 12 months thereafter. If the emission unit(s) are not firing on TEOR/TVC gas when the annual source test is due, the source test may be delayed until operation on TEOR/TVC gas recommences. Source testing to demonstrate compliance with the SOX control efficiency requirements of this permit and the SOX emissions limit (lb/MMBtu) of this permit shall be conducted within 60 days or recommencing firing on TEOR/TVC gas and at least every 12 months thereafter. [District Rule 2201 and 4320] Y

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

Section 5.8 Compliance Determination

Section 5.4.1.3 requires that the operator of any unit have the option by properly operating an emission control system that reduces SO2 emissions by at least 95% by weight; or limiting the exhaust SO2 to less than or equal to 9 ppmv corrected to 3.0% O2. The emission limits selected to demonstrate compliance shall be specified in the source test proposal pursuant
to Rule 1081 (Source Sampling). Therefore, the following condition will be retained or listed on the ATCs as follows:

- (2976) The source plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306 and 4320]

Section 5.8.2 requires that all emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate, no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0. Therefore, the following permit condition will be listed on the ATCs as follows:

- (2972) All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate, no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 4305, 4306 and 4320]

Section 5.8.4 requires that for emissions monitoring pursuant to Sections 5.7.1 and 6.3.1 using a portable NOX analyzer as part of an APCO approved Alternate Emissions Monitoring System, emission readings 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. Therefore, the following previously listed permit condition will be on the ATCs as follows:

- (2937) 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 4305, 4306 and 4320]

Section 5.8.5 requires that for emissions source testing performed pursuant to Section 6.3.1 for the purpose of determining compliance with an applicable standard or numerical limitation of this rule, the arithmetic average of three (3) 30-consecutive-minute test runs shall apply. If two (2) of three (3) runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. Therefore, the following permit condition will be listed on the permit as follows:

- (2980) 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. [District Rules 4305, 4306 and 4320]
Section 6.1 Recordkeeping

Section 6.1 requires that the records required by Sections 6.1.1 through 6.1.5 shall be maintained for five calendar years and shall be made available to the APCO and EPA upon request. Failure to maintain records or information contained in the records that demonstrate noncompliance with the applicable requirements of this rule shall constitute a violation of this rule.

The condition on start-up and shutdown record keeping conditions shall be retained in the ATCs to ensure CUSA's compliance with this section of the rule.

Section 6.2, Test Methods

Section 6.2 identifies test methods to be used when determining compliance with the rule. The following existing permit conditions will be retained on the ATCs:

- {109} 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]

- The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19; CO (ppmv) - EPA Method 10 or ARB Method 100; Stack gas oxygen (O2) - EPA Method 3 or 3A or ARB Method 100; stack gas velocities - EPA Method 2; Stack gas moisture content – EPA Method 4; SOx - EPA Method 6C or 8 or ARB Method 100; fuel gas sulfur as H2S content – EPA Method 11 or 15; and fuel hhv (MMBtu) – ASTM D 1826 or D 1945 in conjunction with ASTM D 3588. [District Rules 4305, 4306 and 4320]

Section 6.3, Compliance Testing

Section 6.3.1 requires that each unit subject to the requirements in Section 5.2 shall be source tested at least once every 12 months, except if two consecutive annual source tests demonstrate compliance, source testing may be performed every 36 months. If such a source test demonstrates non-compliance, source testing shall revert to every 12 months. The following conditions will be included in the appropriate ATCs:

- A source test to demonstrate compliance with NOx and CO emission limits shall be performed within 60 days of startup of this unit. The NOx limit in effect at the time of the startup source testing will be determined based on the volume and type of fuel combusted (greater than or equal to 50% PUC quality or < 50% PUC quality gas) and shall be identified in the source test protocol. Whenever the fuel type is switched from the fuel type combusted during the initial startup of this unit, compliance source testing for NOx and CO shall be conducted within 90 days of the date the fuel type is switched. [District Rules 2201 and 4320]

- Source testing is required at least once every twelve (12) months from the initial source test date of each fuel type (greater than or equal to 50% PUC quality gas or < 50% PUC
quality gas). After an initial compliance demonstration with the NOx and CO emission limits for each fuel type on two (2) consecutive source tests, the unit shall be tested not less than once every thirty-six (36) months from the last test date for that fuel type. Testing shall not be required for any fuel type not in use during the 36 month period until such time the fuel type is switched, after which testing shall be performed within 90 days of switching fuel types. [District Rules 2201 and 4320]

- Source testing to measure NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306 and 4320]

- Compliance with SOx emission limits shall be demonstrated within 60 days of initial operation under this ATC. [District Rules 2201 and 4320]

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

Section 6.3.1.1 specifies tune-up requirements. CUSA will use pre-approved Alternate Monitoring Scheme “A” using a portable analyzer. Therefore the tune-up requirements listed in Section 6.3.1.1 are not applicable. This section also requires, that during the 36-month source testing interval, the owner/operator shall monitor monthly the operational characteristics recommended by the unit manufacturer. Since the pre-approved alternate monitoring requires monthly monitoring of NOx, CO and O2 exhaust emission concentrations using a portable analyzer, the operational characteristics monitoring requirements is satisfied.

Section 6.4 Emission Control Plan (ECP)

Section 6.4 requires the operator of any unit to submit to APCO for approval an Emissions Control Plan no later than January 1, 2010. CUSA has submitted their ECP for these units; therefore, is in compliance with this requirement.

Section 7.0, Compliance Schedule

Section 7.0 identifies the dates by which the operator shall submit an application for an ATC and the date by which the owner shall demonstrate compliance with this rule. Compliance with this requirement of the rule is expected.

Conclusion

Conditions will be incorporated into the ATCs in order to ensure compliance with each section of this rule, see attached draft ATCs. Therefore, compliance with District Rule 4320 requirements is expected.
District Rule 4351  Boilers, Steam Generators and Process Heaters – Phase 1

This rule applies to boilers, steam generators, and process heaters at NOx Major Sources that are not located west of Interstate 5 in Fresno, Kings, or Kern counties. The steam generators are located within the Heavy Oil Western stationary source. The units in this project are located west of I-5; therefore, the provisions of this rule do not apply.

District Rule 4801  Sulfur Compounds

A person shall not discharge into the atmosphere sulfur compounds, which would exist as a liquid or gas at standard conditions, exceeding in concentration at the point of discharge: 0.2 % by volume calculated as SO2, on a dry basis averaged over 15 consecutive minutes.

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

\[
\text{Volume } \text{SO}_2 = \frac{nRT}{P}
\]

With:

\[
N = \text{moles } \text{SO}_2
\]

\[
T \text{ (Standard Temperature)} = 60^\circ\text{F} = 520^\circ\text{R}
\]

\[
P \text{ (Standard Pressure)} = 14.7 \text{ psi}
\]

\[
R \text{ (Universal Gas Constant)} = \frac{10.73 \text{ psi} \cdot \text{ft}^3}{\text{lb} \cdot \text{mol} \cdot ^\circ\text{R}}
\]

\[
\frac{1.94 \text{ lb- } \text{SOX}}{\text{MMBtu}} \times \frac{\text{MMBtu}}{8,578 \text{ dscf}} \times \frac{1 \text{ lb-mol}}{64 \text{ lb}} \times \frac{10.73 \text{ psi} \cdot \text{ft}^3}{\text{lb-mol} \cdot ^\circ\text{R}} \times \frac{520^\circ\text{R}}{14.7 \text{ psi}} \times \frac{1,000,000 \cdot \text{parts}}{1 \text{ million}} = 1,341 \text{ parts} \frac{\text{parts}}{\text{million}}
\]

\[
\text{Sulfur Concentration} = 1,341 \text{ parts} \frac{\text{parts}}{\text{million}} < 2,000 \text{ ppmv} \text{ (or } 0.2\%\text{)}
\]

Therefore, compliance with District Rule 4801 requirements is expected.

California Health & Safety Code 42301.6  (School Notice)

The District has verified that this site is not located within 1,000 feet of a school. Therefore, pursuant to California Health and Safety Code 42301.6, a school notice is not required.

California Environmental Quality Act (CEQA)

The California Environmental Quality Act (CEQA) requires each public agency to adopt objectives, criteria, and specific procedures consistent with CEQA Statutes and the CEQA Guidelines for administering its responsibilities under CEQA, including the orderly evaluation of projects and preparation of environmental documents. The San Joaquin Valley Unified Air Pollution Control District (District) adopted its Environmental Review Guidelines (ERG) in 2001. The basic purposes of CEQA are to:

- Inform governmental decision-makers and the public about the potential, significant environmental effects of proposed activities.

26
Identify the ways that environmental damage can be avoided or significantly reduced.

Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible.

Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

Greenhouse Gas (GHG) Significance Determination

It is determined that no other agency has or will prepare an environmental review document for the project. Thus the District is the Lead Agency for this project.

The District’s engineering evaluation (this document) demonstrates that the project would not result in an increase in project specific greenhouse gas emissions. The District therefore concludes that the project would have a less than cumulatively significant impact on global climate change

District CEQA Findings

The District is the Lead Agency for this project because there is no other agency with broader statutory authority over this project. The District performed an Engineering Evaluation (this document) for the proposed project and determined that the activity will occur at an existing facility and the project involves negligible expansion of the existing use. Furthermore, the District determined that the activity will not have a significant effect on the environment. The District finds that the activity is categorically exempt from the provisions of CEQA pursuant to CEQA Guideline § 15031 (Existing Facilities), and finds that the project is exempt per the general rule that CEQA applies only to projects which have the potential for causing a significant effect on the environment (CEQA Guidelines §15061(b)(3)).

IX. RECOMMENDATION

Make the following non-NSR changes per Chevron request:

Permit S-1141-26-36

- Steam generator shall be equipped with the following operational instrumentation: fuel gas volume flowmeter, TEOR/TVC gas flowmeter, or a flowmeter that measures the combined volume of all fuels combusted, and a flue gas oxygen monitor. [District Rule 22011]

- Combined SOx emissions from Permit units S-1141-26, S-1141-31, and S-1141-515 shall not exceed 937,243 lb/calendar year. [District Rule 22011]

- Combined PM10 emissions from Permit units S-1141-26, S-1141-31, and S-1141-515 shall not exceed 110,893 lb/calendar year. [District Rule 22011]
- Permittee shall maintain a record of the cumulative annual combined PM10 and SOx emissions for units S-1141-26, S-1141-31 and S-1141-515. [District Rule 2201] Y

- ATCs S-1141-26-36, '-31-37, and '515-13 shall be implemented concurrently. [District Rule 2201] Y

Compliance with all applicable rules and regulations is expected. Issue the ATCs listed below subject to the permit conditions on the attached draft Authorities to Construct in Appendix C.

X. BILLING INFORMATION

<table>
<thead>
<tr>
<th>Permit Number</th>
<th>Fee Schedule</th>
<th>Fee Description</th>
<th>Annual Fee</th>
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<tr>
<td>S-1141-26</td>
<td>3020-02-H</td>
<td>62.5 MMBtu/hr</td>
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<td>3020-06</td>
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APPENDICES

Appendix A: Current ATCs (based documents)
Appendix B: Draft Authority to Construct (ATCs): Option 1
Appendix C: Draft Authority to Construct (ATCs): Option 2
Appendix D: Emissions Profile(s)
Appendix E: Title V Compliance Certification
Appendix E: Health Risk Assessment
APPENDIX A

Current PTOs
&
Current ATCs
(based documents)
PERMIT UNIT REQUIREMENTS

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

2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] 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. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [County Rules 404 (Madera), 406 (Fresno), and 407 (Kings, Merced, San Joaquin, Tulare, Kern, and Stanislaus)] Federally Enforceable Through Title V Permit

5. Steam generator shall be equipped with the following operational instrumentation: fuel gas volume flowmeter, TEOR gas volume flowmeter, TVC gas flowmeter, and flue gas oxygen monitor. [District Rule 2201] Federally Enforceable Through Title V Permit

6. The VOC content of the fluid stream handled by the Sulfa-Scrub system shall be less than ten (10) percent by weight, as determined by ASTM Methods E-260-73, E-168-67, or E-169-63. Test samples shall be taken from sampling ports immediately upstream and downstream of the Sulfa-Scrub system. VOC content shall be determined quarterly, and if compliance with the VOC content limit is demonstrated for eight consecutive quarters, the testing frequency may be changed to annual. Testing frequency shall revert to quarterly if an annual test is failed. [District Rule 2201] Federally Enforceable Through Title V Permit

7. All piping, fittings, and valves shall be inspected annually in accordance with EPA Method 21, with an instrument calibrated with methane. Components located in unsafe areas shall be inspected and repaired at the next process turnaround (the shutdown of a unit for maintenance and repair work). [District Rule 2201] Federally Enforceable Through Title V Permit

8. Except for components that are part of a critical process unit as defined in this permit, leaking components (having a gas leak >10,000 ppmv measured as methane) shall be repaired to a leak-free condition within 15 days of discovery. [District Rule 2201] Federally Enforceable Through Title V Permit
9. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2201] Federally Enforceable Through Title V Permit

10. Flue gas recirculation system may be designed such that ambient air may be drawn into flue gas recirculation piping. [District Rule 2201] Federally Enforceable Through Title V Permit

11. When combustion air orifice and flue gas recirculation orifice have been used to demonstrate compliance they shall not be changed without a District-witnessed compliance demonstration. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Total sulfur content of natural gas combusted shall not exceed 0.75 grain/100 scf. [District NSR Rule] Federally Enforceable Through Title V Permit

13. For each steam generator site downstream of H2S scavenger vessel, permittee shall monitor sulfur content of the gas prior to incineration in affected steam generators on a weekly basis utilizing gas detection tubes calibrated for existing sulfur species or other District approved fuel sulfur detection method(s) or device(s). [District Rule 1070] Federally Enforceable Through Title V Permit

14. Compliance with fuel sulfur limit(s) can be demonstrated either by monitoring sulfur content at locations(s) after all fuel sources are combined prior to incineration, or by monitoring the sulfur content and volume of each fuel source and performing mass balance calculations. Records of monitoring locations, detected sulfur concentrations, and mass balance calculations, if necessary, shall be maintained and kept on-site and made readily available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

15. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

16. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8 or ARB Method 1-100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

17. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by: ASTM D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2 and 4305, 6.2.1] Federally Enforceable Through Title V Permit

18. Sulfur emissions shall not exceed 0.11 lb of sulfur per million BTU of heat input, averaged over 3 - one hour periods. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; multiplying the reported sulfur content of each fuel in lb/MBtu by the maximum heat input rating of the unit; or by a combination of source testing for sulfur compounds and fuel analysis. Compliance may be demonstrated for this unit individually, or by showing that the total emissions of sulfur compounds from all steam generators located at the stationary source with ATC or PTO issued prior to September 12, 1979 does not exceed the emissions that would result if each unit was operating in compliance with the specified limit. [Kern County Rule 424 and District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

19. Emissions from the steam generator shall not exceed any of the following limits: 1.94 lb-SOx/MBtu, 0.096 lb-PM10/MBtu, or 0.005 lb-VOC/MBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Except during start-up and shutdown periods emissions from the steam generator shall not exceed any of the following limits: 15 ppmvd NO$_x$ @ 3% O$_2$ or 0.0182 lb-NO$_x$/MMBtu or 51 ppmvd CO @ 3% O$_2$ or 0.0375 lb-CO/MMBtu. [District Rules 2201, 4301, 5.2, 4305, 5.1, and 4306, 5.1] Federally Enforceable Through Title V Permit

21. During start-up and shutdown periods emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NO$_x$/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

22. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 5.5.6 and 4306, 5.3] Federally Enforceable Through Title V Permit

23. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4306, 3.25 and 3.22] Federally Enforceable Through Title V Permit

24. Maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 54.0 lb-NO$_x$/day, 9,965 lb-NO$_x$/yr, 56.3 lb-CO/day, and 20,531 lb-CO/yr. [District Rule 2201] Federally Enforceable Through Title V Permit

25. Source testing to measure NO$_x$ and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3.1 and 4306, 6.3.1] Federally Enforceable Through Title V Permit

26. 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

27. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

28. If the steam generator is not fired on PUC-regulated natural gas, then the sulfur content of the fuel gas being fired in the steam generator shall be determined using ASTM D 1072, D 3031, D 4084, D 3246, double GC for H$_2$S and mercaptans, or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

29. If the steam generator is not fired on 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

30. The permittee shall monitor and record the stack concentration of NO$_x$, CO, and O$_2$ 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 unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit
31. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, 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 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

32. 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 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

33. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

34. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

35. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

36. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1 and 4306, 5.5.1] Federally Enforceable Through Title V Permit

37. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

38. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5.2 and 4306, 5.5.2] Federally Enforceable Through Title V Permit

39. 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. [District Rules 4305, 5.5.5 and 4306, 5.5.5] Federally Enforceable Through Title V Permit

40. 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

41. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx or CO emissions limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 2520, 9.3.2, 4305, 6.3.2, and 4306, 6.3.2] Federally Enforceable Through Title V Permit
42. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2, 4305, 6.3.2, and 4306, 6.3.2] Federally Enforceable Through Title V Permit

43. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). Records shall be maintained for each unit of the group including all preventative and corrective maintenance work done. [District Rules 2520, 9.3.2, 4305, 6.3.2, and 4306, 6.3.2] Federally Enforceable Through Title V Permit

44. All units in a group for which representative units are source tested to for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2, 4305, 6.3.2, and 4306, 6.3.2] Federally Enforceable Through Title V Permit

45. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rules 2520, 9.3.2, 4305, 6.3.2, and 4306, 6.3.2] Federally Enforceable Through Title V Permit

46. 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 3% 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 Rules 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

47. Permittee shall measure and record, at least monthly, the sulfur content and BTU content of the TEOR/TVC gas incinerated in this unit. [District NSR Rule and 4406] Federally Enforceable Through Title V Permit

48. Permittee shall measure and record the fuel gas sulfur content and BTU content at the time of NOx testing, except for natural gas purchased from a PUC regulated utility. [District NSR Rule and 4406] Federally Enforceable Through Title V Permit

49. Permittee shall maintain with the permit a current listing of all TEOR and TVC gas systems providing vapors to this steam generator and shall make such listing readily available for District inspection upon request [District NSR Rule] Federally Enforceable Through Title V Permit

50. Permittee shall maintain daily records of volume of fuel gas burned, TEOR and TVC gas incinerated, and permit number(s) of systems providing gas for incineration. [District NSR Rule] Federally Enforceable Through Title V Permit

51. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any non-certified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

52. 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 1070, 4305, 6.1, and 4306, 6.1] Federally Enforceable Through Title V Permit

53. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

54. The requirements of SJVUAPCD Rule 4351(Amended October 19, 1995) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

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

1. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

2. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

3. The operator 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, 9.5.2] Federally Enforceable Through Title V Permit

4. Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit

5. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rule 2520, 9.4.2 and District Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit

6. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limit has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

7. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8 or ARB Method 1-100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
8. If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

9. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by: ASTM D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2, 4305, 6.2.1 and 4306] Federally Enforceable Through Title V Permit

10. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. To demonstrate compliance with this requirement the operator shall do one of the following: fire the unit only on PUC or FERC regulated natural gas or test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels; or determine that the concentration of sulfur compounds in the exhaust does not exceed the concentration limit by a combination of source testing and fuel analysis. [District Rule 2520, 9.4.2 and County Rules 404 (Madera), 406 (Fresno), and 407 (Kern, Kings, Merced, San Joaquin, Stanislaus, and Tulare)] Federally Enforceable Through Title V Permit

11. Sulfur emissions shall not exceed 0.11 lb of sulfur per million BTU of heat input, averaged over 3 - one hour periods. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; multiplying the reported sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by a combination of source testing for sulfur compounds and fuel analysis. Compliance may be demonstrated for this unit individually, or by showing that the total emissions of sulfur compounds from all steam generators located at the stationary source with ATC or PTO issued prior to September 12, 1979 does not exceed the emissions that would result if each unit was operating in compliance with the specified limit. [Kern County Rule 424 and District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

12. Nitrogen oxide (NOx) emissions shall not exceed 140 lb/hr, calculated as NO2. [District Rules 4301, 5.2.2 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

13. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

14. The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source because this permit unit has not been modified per 40 CFR 60. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

15. The requirements of SJVUAPCD Rule 4351 (Amended October 19, 1995) do not apply to this source because this permit unit is located west of Interstate Highway 5. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

16. Steam generator shall be equipped with the following operational instrumentation: fuel gas volume flowmeter, TEOR/TVC gas volume flowmeter, and flue gas oxygen monitor. [District NSR Rule, 4305 and 4306] Federally Enforceable Through Title V Permit

17. Exhaust gas stack shall be equipped with adequate provisions facilitating the collection of gas samples consistent with EPA Test Methods. [District NSR Rule and 1081] Federally Enforceable Through Title V Permit

18. Flue gas recirculation system may be designed such that ambient air may be drawn into flue gas recirculation piping. [District Rule 2201] Federally Enforceable Through Title V Permit

19. Duration of start-up and shutdown shall not exceed 2 hours each per occurrence. [District Rule 4306] Federally Enforceable Through Title V Permit

20. Permittee shall maintain records of duration of each start-up and shutdown, for a period of five years and make such records readily available for District inspection upon request. [District Rule 4306] Federally Enforceable Through Title V Permit
21. Emission rates shall not exceed: PM10: 144.0 lb/day or 52,560 lb/year, SOx: 2910 lb/day or 1,062,150 lb/year, NOx (as NO2): 54.0 lb/day or 9855 lb/year, VOC: 9.0 lb/day or 3285 lb/year, CO: 40.5 lb/day or 14,783 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit

22. Emission rates, except during startup and shutdown, shall not exceed any of the following: PM10: 0.096 lb/MMBtu, SOx (as SO2): 1.94 lb/MMBtu, NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, VOC: 0.006 lb/MMBtu or CO: 37 ppmv @ 3% O2. [District Rule 2201, 4305, 4306 and 4406] Federally Enforceable Through Title V Permit

23. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

24. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

25. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

26. Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit

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

28. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

29. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, PM10 - EPA Method 5, and gas sulfur content - ASTM D3246 or double GC for H2S and mercaptans. [District Rules 1081, 4305 and 4306] Federally Enforceable Through Title V Permit

30. Permittee shall measure and record, at least monthly, the sulfur content and BTU content of the TEOR gas and TVC gas incinerated in this unit. [District NSR Rule and 4406] Federally Enforceable Through Title V Permit

31. Permittee shall measure and record the natural gas sulfur content and BTU content at the time of NOx testing, except for natural gas purchased from a PUC regulated utility. [District NSR Rule and 4406] Federally Enforceable Through Title V Permit

32. 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 unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
33. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, 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 4305 and 4306] Federally Enforceable Through Title V Permit

34. 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 4305 and 4306] Federally Enforceable Through Title V Permit

35. 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 3% 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 Rules 4305 and 4306] Federally Enforceable Through Title V Permit

36. Permittee shall maintain with the permit a current listing of all TEOR and TVC gas systems providing vapors to this steam generator and shall make such listing readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit

37. Permittee shall maintain daily records of volume of natural gas burned, TEOR and TVC gas incinerated, and permit number(s) of systems providing gas for incineration. [District NSR Rule] Federally Enforceable Through Title V Permit

38. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 2520, 9.4.2, 4305, 6.3.2 and 4306] Federally Enforceable Through Title V Permit

39. The following conditions must be met for representative unit(s) to be used to test for NOx limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.4.2, 4305, 6.3.2 and 4306] Federally Enforceable Through Title V Permit

40. All units in a group for which representative units are source for NOx emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). These tune-up procedures shall be completed according to District Rule 4304 (Adopted October 19, 1995) and tune-up test results shall show comparable results for each unit in the group. Records shall be maintained for each unit of the group including all preventative and corrective maintenance work done. [District Rule 2520, 9.4.2, 4305, 6.3.2 and 4306] Federally Enforceable Through Title V Permit
41. All units in a group for which representative units are source tested for NOx emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g. from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.4.2, 4305, 6.3.2 and 4306] Federally Enforceable Through Title V Permit

42. The number of representative units source tested for NOx emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

43. 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. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

44. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, and 4306] 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: S-1141-515-4
EXPIRATION DATE: 02/28/2006
SECTION: NW21  TOWNSHIP: 31S  RANGE: 22E

EQUIPMENT DESCRIPTION:
62.5 MMBTU/HR NATURAL GAS FIRED SMITH MOON STEEL STEAM GENERATOR WITH A NORTH AMERICAN MODEL #GLE MAGNA-FLAME WITH FGR AND O2 ANALYZER/CONTROLLER (N.B. #826)

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] 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. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [County Rules 404 (Madera), 406 (Fresno), and 407 (Kings, Merced, San Joaquin, Tulare, Kern, and Stanislaus)] Federally Enforceable Through Title V Permit
5. Compliance with fuel sulfur limit(s) can be demonstrated either by monitoring sulfur content at locations(s) after all fuel sources are combined prior to incineration, or by monitoring the sulfur content and volume of each fuel source and performing mass balance calculations. Records of monitoring locations, detected sulfur concentrations, and mass balance calculations, if necessary, shall be maintained and kept onsite and made readily available for District inspection upon request. [District Rule 1070]
6. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
7. When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8 or ARB Method 1-100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
8. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by: ASTM D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.4.2 and 4305, 6.2.1] Federally Enforceable Through Title V Permit

Facility Name: CHEVRON USA INC
Location: HEAVY OIL WESTERN STATIONARY SOURCE,CA

These terms and conditions are part of the Facility-wide Permit to Operate.
9. Sulfur emissions shall not exceed 0.11 lb of sulfur per million BTU of heat input, averaged over 3-one hour periods. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; multiplying the reported sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by a combination of source testing for sulfur compounds and fuel analysis. Compliance may be demonstrated for this unit individually, or by showing that the total emissions of sulfur compounds from all steam generators located at the stationary source with ATC or PTO issued prior to September 12, 1979 does not exceed the emissions that would result if each unit was operating in compliance with the specified limit. [Kern County Rule 424 and District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

10. Total sulfur content of natural gas combusted shall not exceed 0.75 grain/100 scf. [District NSR Rule] Federally Enforceable Through Title V Permit

11. Emissions from the steam generator shall not exceed any of the following limits: 1.644 lb-SOx/MMBtu, 0.096 lb-PM10/MMBtu, or 0.0056 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Except during start-up and shutdown periods emissions from the steam generator shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.0182 lb-NOx/MMBtu or 51 ppmvd CO @ 3% O2 or 0.0375 lb-CO/MMBtu. [District Rules 2201, 4301, 5.2, 4305, 5.1, and 4306, 5.1] Federally Enforceable Through Title V Permit

13. During start-up and shutdown periods emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

14. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 5.5.6 and 4306, 5.3] Federally Enforceable Through Title V Permit

15. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4306, 3.25 and 3.22] Federally Enforceable Through Title V Permit

16. Maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 32.7 lb-NOx/day, 9,965 lb-NOx/yr, 41.0 lb-CO/day, and 20,531 lb-CO/yr. [District Rule 2201] Federally Enforceable Through Title V Permit

17. Source testing to measure NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3.1, and 4306, 6.3.1] Federally Enforceable Through Title V Permit

18. 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

19. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

20. If the steam generator is not fired on PUC-regulated natural gas, then the sulfur content of the fuel gas being fired in the steam generator shall be determined using ASTM D 1072, D 3031, D 4084, D 3246, double GC for H2S and mercaptans, or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
21. If the steam generator is not fired on 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 1081, 9.3.2] Federally Enforceable Through Title V Permit

22. 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 unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

23. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, 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 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

24. 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 4305, 5.4 and 4306, 5.4] Federally Enforceable Through Title V Permit

25. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

26. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

27. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit

28. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1 and 4306, 5.5.1] Federally Enforceable Through Title V Permit

29. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

30. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5.2 and 4306, 5.5.2] Federally Enforceable Through Title V Permit

31. 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. [District Rules 4305, 5.5.5 and 4306, 5.5.5] 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.
32. 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

33. Annual test results submitted to the District from unit(s) representing a group of units may be used to measure NOx and CO emissions of this permit for that group, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx or CO emissions limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. (This requirement shall not supersede a more stringent NSR or PSD permit testing requirement.) [District Rules 2520, 9.3.2, 4305, 6.3.2, and 4306, 6.3.2] Federally Enforceable Through Title V Permit

34. The following conditions must be met for representative unit(s) to be used to test for NOx and CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2, 4305, 6.3.2, and 4306, 6.3.2] Federally Enforceable Through Title V Permit

35. All units in a group for which representative units are source tested for NOx and CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). Records shall be maintained for each unit of the group including all preventative and corrective maintenance work done. [District Rules 2520, 9.3.2, 4305, 6.3.2, and 4306, 6.3.2] Federally Enforceable Through Title V Permit

36. All units in a group for which representative units are source tested to for NOx and CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2, 4305, 6.3.2, and 4306, 6.3.2] Federally Enforceable Through Title V Permit

37. The number of representative units source tested for NOx and CO emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rules 2520, 9.3.2, 4305, 6.3.2, and 4306, 6.3.2] Federally Enforceable Through Title V Permit

38. 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 3% 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 Rules 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

39. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any non-certified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

40. Permittee shall measure and record, at least monthly, the sulfur content of the TEOR gas introduced into this unit whenever TEOR gas is being combusted, and shall make records available for District inspection, upon request, for a period of five years. [District NSR Rule and 4406] Federally Enforceable Through Title V Permit

41. Permittee shall measure and record the fuel gas sulfur content and BTU content at the time of NOx testing, except for natural gas purchased from a PUC regulated utility. [District NSR Rule and 4406] Federally Enforceable Through Title V Permit

42. Permittee shall keep a record of the daily volumes of TEOR gas and fuel gas combusted in this unit, and shall make records available for District inspection, upon request, for a period of five years. [District NSR Rule and 4406] 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.
43. 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 1070, 4305, 6.1, and 4306, 6.1] Federally Enforceable Through Title V Permit
AUTHORITY TO CONSTRUCT

PERMIT NO: S-1141-26-34
LEGAL OWNER OR OPERATOR: CHEVRON USA INC
MAILING ADDRESS: PO BOX 1392
                    BAKERSFIELD, CA 93302
LOCATION: HEAVY OIL WESTERN STATIONARY SOURCE
          CA
SECTION: NW17  TOWNSHIP: 32S  RANGE: 23E

EQUIPMENT DESCRIPTION:
MODIFICATION OF 62.5 MMBTU/HR STRUTHERS THERMOFLOOD NATURAL GAS/TEOR GAS/TVC VAPORS-FIRED
STEAM GENERATOR WITH A NORTH AMERICAN MODEL GLE 4231 ULTRA-LOW NOX BURNER, FGR, A THERMOX
O2 CONTROLLER, VAPOR PIPING FROM TEOR SYSTEM, VAPOR PIPING FROM TVC SYSTEMS, AND A SULFA
SCRUB HYDROGEN SULFIDE (H2S) SYSTEM (COMMON TO -31, -549, -550, -551, -552, -553, -555, -556, -557 AND -
558) (#48, DIS #20860-81, NATIONAL BOARD #1041): LIMIT FUEL GAS SULFUR CONTENT TO 5 GR-S/100 SCF OR
REDUCE SOX BY 95% VIA SCRUBBING OR TO AN OUTLET CONCENTRATION NOT EXCEEDING 9 PPMV @ 3%
O2 FOR RULE 4320 COMPLIANCE

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR
   70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District NSR Rule] Federally Enforceable
   Through Title V Permit

2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application
to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4.
[District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit

3. This Authority to Construct shall be implemented according to the date proposed in the District-approved Rule 4320
   Emission Control Plan. [District Rule 4320]

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

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED
AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO
CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made
after an inspection to verify that the equipment has been constructed in accordance with the approved plans,
specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance
with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has
commenced pursuant to Rule 2060, this Authority to Construct shall expire and application shall be cancelled two years
from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other
governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services
S-1141-26-34  Jul 22 2010  SIGNED - Obtained - AIR Permit NOT Recorded
Southern Regional Office • 34946 Flyover Court • Bakersfield, CA 93306 • (661) 392-5500 • Fax (661) 392-5585
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] Federally Enforceable Through Title V Permit

6. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit

7. Steam generator shall be equipped with the following operational instrumentation: fuel gas volume flowmeter, TEOR gas volume flowmeter, TVC gas flowmeter, and flue gas oxygen monitor. [District Rule 2201] Federally Enforceable Through Title V Permit

8. The VOC content of the fluid stream handled by the Sulfa-Scrub system shall be less than ten (10) percent by weight, as determined by ASTM Methods E-260-73, E-168-67, or E-169-63. Test samples shall be taken from sampling ports immediately upstream and downstream of the Sulfa-Scrub system. VOC content shall be determined quarterly, and if compliance with the VOC content limit is demonstrated for eight consecutive quarters, the testing frequency may be changed to annual. Testing frequency shall revert to quarterly if an annual test is failed. [District Rule 2201] Federally Enforceable Through Title V Permit

9. All piping, fittings, and valves shall be inspected annually in accordance with EPA Method 21, with an instrument calibrated with methane. Components located in unsafe areas shall be inspected and repaired at the next process turnaround (the shutdown of a unit for maintenance and repair work). [District Rule 2201] Federally Enforceable Through Title V Permit

10. Except for components that are part of a critical process unit as defined in this permit, leaking components (having a gas leak >10,000 ppmv measured as methane) shall be repaired to a leak-free condition within 15 days of discovery. [District Rule 2201] Federally Enforceable Through Title V Permit

11. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Flue gas recirculation system may be designed such that ambient air may be drawn into flue gas recirculation piping. [District Rule 2201] Federally Enforceable Through Title V Permit

13. When combustion air orifice and flue gas recirculation orifice have been used to demonstrate compliance they shall not be changed without a District-witnessed compliance demonstration. [District Rule 2201] Federally Enforceable Through Title V Permit

14. For each steam generator site downstream of H2S scavenger vessel, permittee shall monitor sulfur content of the gas prior to incineration in affected steam generators on a weekly basis utilizing gas detection tubes calibrated for existing sulfur species or other District approved fuel sulfur detection method(s) or device(s). [District Rule 1070] Federally Enforceable Through Title V Permit

15. Fuel H2S, total sulfur, and methane content shall be determined semi-annually using the following test methods H2S: ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, double GC for H2S and mercaptans or ASTM D6228; and methane content: ASTM D1945. [District Rule 4320]

16. Each fuel source shall be tested semi-annually for sulfur content and higher heating value. If a fuel content test fails to show compliance, weekly testing is required until compliance is demonstrated for 8 consecutive weeks, after which semi-annual testing may resume. [District Rules 2520, 9.3.2 and 4320, 5.7.6] Federally Enforceable Through Title V Permit

17. If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value. [District Rules 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE
18. If the unit is not fired on PUC-regulated natural gas and compliance is achieved through fuel sulfur content limitations, then the sulfur content of the fuel shall be determined by testing sulfur content at a location after all fuel sources are combined prior to incineration, or by performing mass balance calculations based on monitoring the sulfur content and volume of each fuel source. The sulfur content of the fuel shall be determined using the test methods referenced in this permit. [District Rules 2520, 9.3.2 and 4320, 5.7.6] Federally Enforceable Through Title V Permit

19. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by: ASTM D 1826 or D1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 2520, 9.4.2, 4305, 6.2.1 and 4320] Federally Enforceable Through Title V Permit

20. Emissions from the steam generator shall not exceed any of the following limits: 1.94 lb-SOx/ MMBtu, 0.096 lb-PM10/MMBtu, or 0.005 lb-VOC/MMBtu. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

21. Except during start-up and shutdown periods emissions from the steam generator shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.0182 lb-NOx/MMBtu or 51 ppmvd CO @ 3% O2 or 0.0375 lb-CO/MMBtu. [District Rules 2201, 4301, 5.2, 4305, 5.1, 4306, 5.1 and 4320] Federally Enforceable Through Title V Permit

22. During start-up and shutdown periods, emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

23. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 5.5.6, 4306, 5.3 and 4320] Federally Enforceable Through Title V Permit

24. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken completely turned off. [District Rule 4306, 3.25 and 3.22] Federally Enforceable Through Title V Permit

25. Maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 54.0 lb-NOx/day, 9,965 lb-NOx/yr, 56.3 lb-CO/yr, and 20,531 lb-CO/yr. [District Rule 2201] Federally Enforceable Through Title V Permit

26. Fuel gas sulfur content shall not exceed 5 gr S/100 dscf unless SOx emissions are reduced by 95% or to 9 ppmv SOx @ 3% O2 in the exhaust with scrubber. [District Rule 4320]

27. Source testing to measure NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3.1, 4306, 6.3.1 and 4320] Federally Enforceable Through Title V Permit

28. Compliance with SOx emission limits shall be demonstrated within 60 days of initial operation under this ATC. [District Rules 2201 and 4320]

29. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

30. The 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 unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4, 4306, 5.4 and 4320] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE
31. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, 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 performing the notification and testing required by this condition. [District Rules 4305, 5.4, 4306, 5.4 and 4320] Federally Enforceable Through Title V Permit

32. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

33. The source test plan shall identify which basis (ppmv or Ib/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1, 4306, 5.5.1 and 4320] Federally Enforceable Through Title V Permit

34. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (Ib/MMBtu) - EPA Method 19; CO (ppmv) - EPA Method 10 or ARB Method 100; Stack gas oxygen (O2) - EPA Method 3 or 3A or ARB Method 100; stack gas velocities - EPA Method 2; and Stack gas moisture content - EPA Method 4. [District Rules 1081, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

35. All required source testing 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 4305, 5.4, 4306, 5.4 and 4320] Federally Enforceable Through Title V Permit

36. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 4305, 5.5.2, 4306, 5.5.2 and 4320] Federally Enforceable Through Title V Permit

37. The source test plan shall identify which basis (ppmv or Ib/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1, 4306, 5.5.1 and 4320] Federally Enforceable Through Title V Permit

38. The requirements of SJVUAPCD Rule 4351 (Amended October 19, 1995) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

Conditions continue on next page
43. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320]

44. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such 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 1070 and Rule 4320]

45. 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 1070, 4305, 6.1, 4306, 6.1 and 4320] Federally Enforceable Through Title V Permit
AUTHORITY TO CONSTRUCT

PERMIT NO: S-1141-31-35
ISSUANCE DATE: 07/21/2010

LEGAL OWNER OR OPERATOR: CHEVRON USA INC
MAILING ADDRESS: PO BOX 1392
BAKERSFIELD, CA 93302

LOCATION: HEAVY OIL WESTERN STATIONARY SOURCE
CA

SECTION: NW17 TOWNSHIP: 32S RANGE: 23E

EQUIPMENT DESCRIPTION:
MODIFICATION OF 62.5 MMBTU/HR NATURAL GAS/TEOR/TVC GAS FIRED CE NATCO STEAM GENERATOR #59
(DIS# 20639-81, NATIONAL BOARD #1352), WITH NORTH AMERICAN MAGNA-FLAME GLE ULTRA-LOW NOX
BURNER, O2 CONTROLLER AND FGR PERMITTED TO OPERATE WITH EITHER AN AIR-FUEL MIXING ROD OR A
MULTI-PORT (AKA GATLING GUN) PRIMARY MIXER: LIMIT FUEL GAS SULFUR CONTENT TO 5 GR-S/1100 SCF OR
REDUCE SOX BY 95% VIA SCRUBBING OR TO AN OUTLET CONCENTRATION NOT EXCEEDING 9 PPMVD @ 3%
O2 FOR RULE 4320 COMPLIANCE

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR
70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District NSR Rule] Federally Enforceable
Through Title V Permit

2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application
to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4.
[District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit

3. This Authority to Construct shall be implemented according to the date proposed in the District-approved Rule 4320
Emission Control Plan. [District Rule 4320]

4. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last
Amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San
Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO
OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This IS NOT A PERMIT TO OPERATE.
Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the
approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all
Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this
Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all
laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services
Soulhem Regional Office • 34946 Flyover Court • Bakersfield, CA 93308 • (661) 392-5500 • Fax (661) 392-5585
5. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

6. The operator 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, 9.5.2] Federally Enforceable Through Title V Permit

7. Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit

8. Fuel H2S, total sulfur, and methane content shall be determined semi-annually using the following test methods H2S: ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, double GC for H2S and mercaptans or ASTM D6228; and methane content: ASTM D1945. [District Rule 4320]

9. Each fuel source shall be tested semi-annually for sulfur content and higher heating value. If a fuel content test fails to show compliance, weekly testing is required until compliance is demonstrated for 8 consecutive weeks, after which semi-annual testing may resume. [District Rules 2520, 9.3.2 and 4320, 5.7.6] Federally Enforceable Through Title V Permit

10. If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value. [District Rules 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit

11. If the unit is not fired on PUC-regulated natural gas and compliance is achieved through fuel sulfur content limitations, then the sulfur content of the fuel shall be determined by testing sulfur content at a location after all fuel sources are combined prior to incineration, or by performing mass balance calculations based on monitoring the sulfur content and volume of each fuel source. The sulfur content of the fuel shall be determined using the test methods referenced in this permit. [District Rules 2520, 9.3.2 and 4320, 5.7.6] Federally Enforceable Through Title V Permit

12. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by: ASTM D 1826 or D1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 2520, 9.4.2, 4305, 6.2.1 and 4320] Federally Enforceable Through Title V Permit

13. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

14. The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source because this permit unit has not been modified per 40 CFR 60. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

15. The requirements of SJVUAPCD Rule 4351 (Amended October 19, 1995) do not apply to this source because this permit unit is located west of Interstate Highway 5. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

16. Steam generator shall be equipped with the following operational instrumentation: fuel gas volume flowmeter, TEOR/TVC gas volume flowmeter, and flue gas oxygen monitor. [District NSR Rule, 4305 and 4306] Federally Enforceable Through Title V Permit

17. Exhaust gas stack shall be equipped with adequate provisions facilitating the collection of gas samples consistent with EPA Test Methods. [District NSR Rule and 1081] Federally Enforceable Through Title V Permit

18. Flue gas recirculation system may be designed such that ambient air may be drawn into flue gas recirculation piping. [District Rule 2201] Federally Enforceable Through Title V Permit

19. Duration of start-up and shutdown shall not exceed 2 hours per occurrence. During a start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. [District Rule 4306] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE
20. Permittee shall maintain daily records of the duration of each start-up and shutdown, for a period of five years and make such records readily available for District inspection upon request. [District Rule 4306] Federally Enforceable Through Title V Permit

21. During start-up and shutdown periods, emissions from the steam generator shall not exceed the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

22. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit’s emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status as the period of time during which the unit is completely turned off. [District Rule 4306, 3.25 and 3.22] Federally Enforceable Through Title V Permit

23. Emission rates shall not exceed: PM10: 144.0 lb/day or 52,560 lb/year, SOx: 2910 lb/day or 1,062,150 lb/year, NOx (as NO2): 54.0 lb/day or 1985 lb/year, VOC: 9.0 lb/day or 3285 lb/year, CO: 40.5 lb/day or 14,783 lb/year. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

24. Emission rates shall not exceed any of the following: PM10: 0.096 lb/MMBtu, SOx (as SO2): 1.94 lb/MMBtu, or VOC: 0.006 lb/MMBtu. [District Rules 2201, 4305, 4306, 4406 and 4320] Federally Enforceable Through Title V Permit

25. Emission rates, except during startup and shutdown, shall not exceed any of the following: NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 37 ppmv @ 3% O2. [District Rules 2201, 4305, 4306, 4406 and 4320] Federally Enforceable Through Title V Permit

26. Fuel gas sulfur content shall not exceed 5 gr/S100 dscf unless SOx emissions are reduced by 95% or to 9 ppmv SOx @ 3% O2 in the exhaust with scrubber. [District Rule 4320]

27. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

28. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

29. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

30. Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit

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

32. Compliance with SOx emission limits shall be demonstrated within 60 days of initial operation under this ATC. [District Rules 2201 and 4320]

33. 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

34. The following test methods shall be used: NOX (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19; CO (ppmv) - EPA Method 10 or ARB Method 100; Stack gas oxygen (O2) - EPA Method 3 or 3A or ARB Method 100; stack gas velocities - EPA Method 2; Stack gas moisture content - EPA Method 4; and Stack gas moisture content - EPA Method 4. [District Rules 1081, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE
35. 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 unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

36. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, 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 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

37. 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 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

38. 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 3% 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 Rules 4305 and 4306] Federally Enforceable Through Title V Permit

39. Permittee shall maintain with the permit a current listing of all TEOR and TVC gas systems providing vapors to this steam generator and shall make such listing readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit

40. 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. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

41. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320]

42. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such 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 1070 and Rule 4320]

43. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
AUTHORITY TO CONSTRUCT

PERMIT NO: S-1141-515-11

ISSUANCE DATE: 07/21/2010

LEGAL OWNER OR OPERATOR: CHEVRON USA INC

MAILING ADDRESS: PO BOX 1392

BAKERSFIELD, CA 93302

LOCATION: HEAVY OIL WESTERN STATIONARY SOURCE

CA

SECTION: NW17 TOWNSHIP: 32S RANGE: 23E

EQUIPMENT DESCRIPTION:
MODIFICATION OF 62.5 MMBTU/HR NATURAL GAS/TEOR GAS-FIRED SMITH MOON STEEL STEAM GENERATOR
WITH A NORTH AMERICAN MODEL #GLE MAGNA-FLAME WITH FGR AND O2 ANALYZER/CONTROLLER (N.B. #626): LIMIT FUEL GAS SULFUR CONTENT TO 5 GR-S/100 SCF OR REDUCE SOX BY 85% VIA SCRUBBING OR TO
AN OUTLET CONCENTRATION NOT EXCEEDING 9 PPMVD @ 3% O2 FOR RULE 4320 COMPLIANCE

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District NSR Rule] Federally Enforceable Through Title V Permit

2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit

3. This Authority to Construct shall be implemented according to the date proposed in the District-approved Rule 4320 Emission Control Plan. [District Rule 4320]

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

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] Federally Enforceable Through Title V Permit

6. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO
7. Fuel H2S, total sulfur, and methane content shall be determined semi-annually using the following test methods H2S: ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, double GC for H2S and mercaptans or ASTM D6228; and methane content: ASTM D1945. [District Rule 4320]

8. Each fuel source shall be tested semi-annually for sulfur content and higher heating value. If a fuel content test fails to show compliance, weekly testing is required until compliance is demonstrated for 8 consecutive weeks, after which semi-annually testing may resume. [District Rules 2520, 9.3.2 and 4320, 5.7.6] Federally Enforceable Through Title V Permit

9. If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value. [District Rules 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit

10. If the unit is not fired on PUC-regulated natural gas and compliance is achieved through fuel sulfur content limitations, then the sulfur content of the fuel shall be determined by testing sulfur content at a location after all fuel sources are combined prior to incineration, or by performing mass balance calculations based on monitoring the sulfur content and volume of each fuel source. The sulfur content of the fuel shall be determined using the test methods referenced in this permit. [District Rules 2520, 9.3.2 and 4320, 5.7.6] Federally Enforceable Through Title V Permit

11. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by: ASTM D 1826 or D1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 2520, 9.4.2, 4305, 6.2.1 and 4320] Federally Enforceable Through Title V Permit

12. Emissions from the steam generator shall not exceed any of the following limits: 1.644 lb-SOx/MMBtu, 0.096 lb-PM10/MMBtu, or 0.0056 lb-VOC/MMBtu. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

13. Except during start-up and shutdown periods emissions from the steam generator shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.0182 lb-NOx/MMBtu or 51 ppmvd CO @ 3% O2 or 0.0375 lb-CO/MMBtu. [District Rules 2201, 4301, 5.2, 4305, 5.1, 4306, 5.1, and 4320] Federally Enforceable Through Title V Permit

14. Fuel gas sulfur content shall not exceed 5 gr S/100 dscf unless SOx emissions are reduced by 95% or to 9 ppmv SOx @ 3% O2 in the exhaust with scrubber. [District Rule 4320]

15. During start-up and shutdown periods, emissions from the steam generator shall not exceed the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

16. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 5.5.6 and 4306, 5.3] Federally Enforceable Through Title V Permit

17. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4303, 3.25 and 3.22] Federally Enforceable Through Title V Permit

18. Maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 32.7 lb-NOx/day, 9,965 lb-NOx/yr, 41.0 lb-CO/day, and 20,531 lb-CO/yr. [District Rule 2201] Federally Enforceable Through Title V Permit

19. Source testing to measure NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3.1, 4306, 6.3.1 and 4320] Federally Enforceable Through Title V Permit

20. Compliance with SOx emission limits shall be demonstrated within 60 days of initial operation under this ATC. [District Rule 4320]
21. 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

22. 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 unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4, 4306, 5.4 and 4320] Federally Enforceable Through Title V Permit

23. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, 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 4305, 5.4, 4306, 5.4 and 4320] Federally Enforceable Through Title V Permit

24. 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 4305, 5.4, 4306, 5.4 and 4320] Federally Enforceable Through Title V Permit

25. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19; CO (ppmv) - EPA Method 10 or ARB Method 100; Stack gas oxygen (O2) - EPA Method 3 or 3A or ARB Method 100; stack gas velocities - EPA Method 2; Stack gas moisture content - EPA Method 4; SOx - EPA Method 6C or 8 or ARB Method 100; fuel gas sulfur as H2S content - EPA Method 11 or 15; and fuel hhv (MMBtu) - ASTM D 1826 or D 1945 in conjunction with ASTM D 3588. [District Rules 1081, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

26. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

27. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 4305, 5.5.2, 4306, 5.5.2 and 4320] Federally Enforceable Through Title V Permit

28. 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. [District Rules 4305, 5.5.5, 4306, 5.5.5 and 4320] Federally Enforceable Through Title V Permit

29. 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

30. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1, 4306, 5.5.1 and 4320] Federally Enforceable Through Title V Permit

31. 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 3% 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 Rules 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE
32. Permittee shall maintain with the permit a current listing of all TEOR and TVC gas systems providing vapors to this steam generator and shall make such listing readily available for District inspection upon request [District NSR Rule] Federally Enforceable Through Title V Permit

33. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320]

34. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such 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 1070 and Rule 4320]

35. 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 1070, 4305, 6.1, 4306, 6.1 and 4320] Federally Enforceable Through Title V Permit
APPENDIX B

Draft Authorities to Construct (ATCs): Option 1
San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: S-1141-26-35

LEGAL OWNER OR OPERATOR: CHEVRON USA INC
MAILING ADDRESS: PO BOX 1392
BAKERSFIELD, CA 93302

LOCATION: HEAVY OIL WESTERN STATIONARY SOURCE
CA

SECTION: 17 TOWNSHIP: 32S RANGE: 23E

EQUIPMENT DESCRIPTION:
MODIFICATION OF 62.5 MMBTU/HR STRATHERS THERMOFLOOD NATURAL GAS/TEOR GAS/TVC VAPORS-FIRED STEAM GENERATOR WITH A NORTH AMERICAN MODEL GLE 4231 ULTRA-LOW NOX BURNER, FGR, A THERMOX O2 CONTROLLER, VAPOR PIPING FROM TEOR SYSTEM, VAPOR PIPING FROM TVC SYSTEMS, AND A SULFA SCRUB HYDROGEN SULFIDE (H2S) SYSTEM (COMMON TO -31, -548, -550, -551, -552, -553, -555, -556, -557 AND -558) (#48, DIS #20660-81, NATIONAL BOARD #1041): DESIGNATE AS DORMANT FOR RULE 4320 COMPLIANCE CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District NSR Rule] Federally Enforceable Through Title V Permit

2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit

3. No modification to this unit shall be performed without an Authority to Construct for such modification(s), except for changes specified in conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit

4. The fuel supply line shall be physically disconnected from this unit. [District Rule 4320] Federally Enforceable Through Title V Permit

5. When designated as a dormant emissions unit, the permittee shall not be required to perform source testing or monitoring requirements otherwise required by this permit. [District Rule 4320] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadrelin, Executive Director APCO

DAVID WARNER, Director of Permit Services
8-1141-26-35, Apr 09 2010 11:15AM - DAVIDSON - Joint Inspection NOT Required
Southern Regional Office • 34946 Flyover Court • Bakersfield, CA 93308 • (661) 392-5500 • Fax (661) 392-5585
6. This equipment shall not be operated for any reason until an Authority to Construct permit is issued approving all necessary permit changes and/or retrofits required to comply with the applicable requirements of District Rule 4306 and all other applicable District regulations. [District Rule 4320] Federally Enforceable Through Title V Permit

7. This Authority to Construct shall be implemented according to the date proposed in the District-approved Rule 4320 Emission Control Plan. [District Rule 4320]

8. (98) No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

9. 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

10. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit

11. Steam generator shall be equipped with the following operational instrumentation: fuel gas volume flowmeter, TEOR gas volume flowmeter, TVC gas flowmeter, and flue gas oxygen monitor. [District Rule 2201] Federally Enforceable Through Title V Permit

12. The VOC content of the fluid stream handled by the Sulfu-Scrub system shall be less than ten (10) percent by weight, as determined by ASTM Methods E-260-73, E-168-67, or E-169-63. Test samples shall be taken from sampling ports immediately upstream and downstream of the Sulfu-Scrub system. VOC content shall be determined quarterly, and if compliance with the VOC content limit is demonstrated for eight consecutive quarters, the testing frequency may be changed to annual. Testing frequency shall revert to quarterly if an annual test is failed. [District Rule 2201] Federally Enforceable Through Title V Permit

13. All piping, fittings, and valves shall be inspected annually in accordance with EPA Method 21, with an instrument calibrated with methane. Components located in unsafe areas shall be inspected and repaired at the next process turnaround (the shutdown of a unit for maintenance and repair work). [District Rule 2201] Federally Enforceable Through Title V Permit

14. Except for components that are part of a critical process unit as defined in this permit, leaking components (having a gas leak $>10,000$ ppmv measured as methane) shall be repaired to a leak-free condition within 15 days of discovery. [District Rule 2201] Federally Enforceable Through Title V Permit

15. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2201] Federally Enforceable Through Title V Permit

16. Flue gas recirculation system may be designed such that ambient air may be drawn into flue gas recirculation piping. [District Rule 2201] Federally Enforceable Through Title V Permit

17. When combustion air orifice and flue gas recirculation orifice have been used to demonstrate compliance they shall not be changed without a District-witnessed compliance demonstration. [District Rule 2201] Federally Enforceable Through Title V Permit

18. For each steam generator site downstream of H2S scavenger vessel, permittee shall monitor sulfur content of the gas prior to incineration in affected steam generators on a weekly basis utilizing gas detection tubes calibrated for existing sulfur species or other District approved fuel sulfur detection method(s) or device(s). [District Rule 1070] Federally Enforceable Through Title V Permit

19. Fuel H2S, total sulfur, and methane content shall be determined semi-annually using the following test methods H2S: ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, double GC for H2S and mercaptans or ASTM D6228; and methane content: ASTM D1945. [District Rule 4320]
20. Each fuel source shall be tested semi-annually for sulfur content and higher heating value. If a fuel content test fails to show compliance, weekly testing is required until compliance is demonstrated for 8 consecutive weeks, after which semi-annual testing may resume. [District Rules 2520, 9.3.2 and 4320, 5.7.6] Federally Enforceable Through Title V Permit

21. If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value. [District Rules 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit

22. If the unit is not fired on PUC-regulated natural gas and compliance is achieved through fuel sulfur content limitations, then the sulfur content of the fuel shall be determined by testing sulfur content at a location after all fuel sources are combined prior to incineration, or by performing mass balance calculations based on monitoring the sulfur content and volume of each fuel source. The sulfur content of the fuel shall be determined using the test methods referenced in this permit. [District Rules 2520, 9.3.2 and 4320, 5.7.6] Federally Enforceable Through Title V Permit

23. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by: ASTM D 1826 or D1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 2520, 9.4.2, 4305, 6.2.1 and 4320] Federally Enforceable Through Title V Permit

24. Emissions from the steam generator shall not exceed any of the following limits: 1.94 lb-SOx/MMBtu, 0.096 lb-PM10/MMBtu, or 0.005 lb-VOC/MMBtu. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

25. Except during start-up and shutdown periods emissions from the steam generator shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.0182 lb-NOx/MMBtu or 51 ppmvd CO @ 3% O2 or 0.0375 lb-CO/MMBtu. [District Rules 2201, 4301, 5.2, 4305, 5.1, 4306, 5.1 and 4320] Federally Enforceable Through Title V Permit

26. During start-up and shutdown periods, emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

27. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 5.5.6, 4306, 5.3 and 4320] Federally Enforceable Through Title V Permit

28. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4306, 3.25 and 3.22] Federally Enforceable Through Title V Permit

29. Maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 54.0 lb-NOx/day, 9,965 lb-NOx/yr, 56.3 lb-CO/day, and 20,531 lb-CO/yr. [District Rule 2201] Federally Enforceable Through Title V Permit

30. Fuel gas sulfur content shall not exceed 5 gr/S/100 dscf unless SOx emissions are reduced by 95% or to 9 ppmv SOx @ 3% O2 in the exhaust with scrubber. [District Rule 4320]

31. Source testing to measure NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3.1, 4306, 6.3.1 and 4320] Federally Enforceable Through Title V Permit

32. Compliance with SOx emission limits shall be demonstrated within 60 days of initial operation under this ATC. [District Rules 2201 and 4320]

33. 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

Conditions continue on next page
34. 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 unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4, 4306, 5.4 and 4320] Federally Enforceable Through Title V Permit

35. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, 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 4305, 5.4, 4306, 5.4 and 4320] Federally Enforceable Through Title V Permit

36. 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 4305, 5.4, 4306, 5.4 and 4320] Federally Enforceable Through Title V Permit

37. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19; CO (ppmv) - EPA Method 10 or ARB Method 100; Stack gas oxygen (O2) - EPA Method 3 or 3A or ARB Method 100; stack gas velocities - EPA Method 2; and Stack gas moisture content - EPA Method 4. [District Rules 1081, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

38. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1, 4306, 5.5.1 and 4320] Federally Enforceable Through Title V Permit

39. (518) All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

40. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 4305, 5.5.2, 4306, 5.5.2 and 4320] Federally Enforceable Through Title V Permit

41. 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. [District Rules 4305, 5.5.5, 4306, 5.5.5 and 4320] Federally Enforceable Through Title V Permit

42. 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

43. 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 3% 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 Rules 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

44. Permittee shall maintain with the permit a current listing of all TEOR and TVC gas systems providing vapors to this steam generator and shall make such listing readily available for District inspection upon request [District NSR Rule] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE
45. {533} Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

46. {535} The requirements of SJVUAPCD Rule 4351 (Amended October 19, 1995) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

47. {4194} Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320]

48. {4253} Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such 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 1070, 4305, 6.1, 4306, 6.1 and 4320] Federally Enforceable Through Title V Permit

49. 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 1070, 4305, 6.1, 4306, 6.1 and 4320] Federally Enforceable Through Title V Permit
San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: S-1141-31-36

LEGAL OWNER OR OPERATOR: CHEVRON USA INC
MAILING ADDRESS: PO BOX 1392
BAKERSFIELD, CA 93302

LOCATION: HEAVY OIL WESTERN STATIONARY SOURCE
CA

SECTION: NW17  TOWNSHIP: 32S  RANGE: 23E

EQUIPMENT DESCRIPTION:
MODIFICATION OF 62.5 MMBTU/HR NATURAL GAS/TEOR/TVC GAS FIRED CE NATCO STEAM GENERATOR #59 (DIS# 20639-81, NATIONAL BOARD #1352), WITH NORTH AMERICAN MAGNA-FLAME GLE ULTRA-LOW NOX BURNER, O2 CONTROLLER AND FGR PERMITTED TO OPERATE WITH EITHER AN AIR-FUEL MIXING ROD OR A MULTI-PORT (AKA GATLING GUN) PRIMARY MIXER: DESIGNATE AS DORMANT EMISSIONS UNIT FOR RULE 4320 COMPLIANCE

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District NSR Rule] Federally Enforceable Through Title V Permit

2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit

3. No modification to this unit shall be performed without an Authority to Construct for such modification(s), except for changes specified in conditions below. [District Rule 2020] Federally Enforceable Through Title V Permit

4. The fuel supply line shall be physically disconnected from this unit. [District Rule 4320] Federally Enforceable Through Title V Permit

5. When designated as a dormant emissions unit, the permittee shall not be required to perform source testing or monitoring requirements otherwise required by this permit. [District Rule 4320] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director APCD

DAVID WARNER, Director of Permit Services
S-1141-31-36 - Nov 20 2010 9:11AM - DRAFT - Joint Inspection NOT Required
Southern Regional Office • 34946 Flyover Court • Bakersfield, CA 93308 • (661) 392-5500 • Fax (661) 392-5585
6. This equipment shall not be operated for any reason until an Authority to Construct permit is issued approving all necessary permit changes and/or retrofits required to comply with the applicable requirements of District Rule 4306 and all other applicable District regulations. [District Rule 4320] Federally Enforceable Through Title V Permit

7. This Authority to Construct shall be implemented according to the date proposed in the District-approved Rule 4320 Emission Control Plan. [District Rule 4320] Federally Enforceable Through Title V Permit

8. (518) All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

9. (519) Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

10. (520) The operator 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, 9.5.2] Federally Enforceable Through Title V Permit

11. (521) Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit

12. Fuel H2S, total sulfur, and methane content shall be determined semi-annually using the following test methods H2S: ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, double GC for H2S and mercaptans or ASTM D6228; and methane content: ASTM D1945. [District Rule 4320]

13. Each fuel source shall be tested semi-annually for sulfur content and higher heating value. If a fuel content test fails to show compliance, weekly testing is required until compliance is demonstrated for 8 consecutive weeks, after which semi-annual testing may resume. [District Rules 2520, 9.3.2 and 4320, 5.7.6] Federally Enforceable Through Title V Permit

14. If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value. [District Rules 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit

15. If the unit is not fired on PUC-regulated natural gas and compliance is achieved through fuel sulfur content limitations, then the sulfur content of the fuel shall be determined by testing sulfur content at a location after all fuel sources are combined prior to incineration, or by performing mass balance calculations based on monitoring the sulfur content and volume of each fuel source. The sulfur content of the fuel shall be determined using the test methods referenced in this permit. [District Rules 2520, 9.3.2 and 4320, 5.7.6] Federally Enforceable Through Title V Permit

16. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by: ASTM D 1826 or D1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 2520, 9.4.2, 4305, 6.2.1 and 4320] Federally Enforceable Through Title V Permit

17. (533) Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

18. The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source because this permit unit has not been modified per 40 CFR 60. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

19. The requirements of SJVUAPCD Rule 4361(Amended October 19, 1995) do not apply to this source because this permit unit is located west of Interstate Highway 5. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
20. Steam generator shall be equipped with the following operational instrumentation: fuel gas volume flowmeter, TEOR/TVC gas volume flowmeter, and flue gas oxygen monitor. [District NSR Rule, 4305 and 4306] Federally Enforceable Through Title V Permit.


22. Flue gas recirculation system may be designed such that ambient air may be drawn into flue gas recirculation piping. [District Rule 2201] Federally Enforceable Through Title V Permit.

23. Duration of start-up and shutdown shall not exceed 2 hours each per occurrence. During a start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. [District Rule 4306] Federally Enforceable Through Title V Permit.

24. Permittee shall maintain daily records of the duration of each start-up and shutdown, for a period of five years and make such records readily available for District inspection upon request. [District Rule 4306] Federally Enforceable Through Title V Permit.

25. During start-up and shutdown periods, emissions from the steam generator shall not exceed the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit.

26. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rules 4306, 3.25 and 3.22] Federally Enforceable Through Title V Permit.

27. Emission rates shall not exceed: PM10: 144.0 lb/day or 52,560 lb/year, SOx: 2910 lb/day or 1,062,150 lb/year, NOx (as NO2): 54.0 lb/day or 1985 lb/year, VOC: 9.0 lb/day or 3285 lb/year, CO: 40.5 lb/day or 14,783 lb/year. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit.

28. Emission rates shall not exceed any of the following: PM10: 0.096 lb/MMBtu, SOx (as SO2): 1.94 lb/MMBtu, or VOC: 0.006 lb/MMBtu. [District Rule 2201, 4305, 4306, 4406 and 4320] Federally Enforceable Through Title V Permit.

29. Emission rates, except during startup and shutdown, shall not exceed any of the following: NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 37 ppmv @ 3% O2. [District Rule 2201, 4305, 4306, 4406 and 4320] Federally Enforceable Through Title V Permit.

30. Fuel gas sulfur content shall not exceed 5 gr S/100 dscf unless SOx emissions are reduced by 95% or to 9 ppmv SOx @ 3% O2 in the exhaust with scrubber. [District Rule 4320]

31. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit.

32. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit.

33. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit.

34. Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit.

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

CONDITIONS CONTINUE ON NEXT PAGE
36. Compliance with SOx emission limits shall be demonstrated within 60 days of initial operation under this ATC. [District Rules 2201 and 4320]

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

38. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19; CO (ppmv) - EPA Method 10 or ARB Method 100; Stack gas oxygen (O2) - EPA Method 3 or 3A or ARB Method 100; stack gas velocities - EPA Method 2; Stack gas moisture content - EPA Method 4; and Stack gas moisture content - EPA Method 4. [District Rules 1081, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

39. 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 unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

40. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, 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 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

41. 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 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

42. 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 3% 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 Rules 4305 and 4306] Federally Enforceable Through Title V Permit

43. Permittee shall maintain with the permit a current listing of all TEOR and TVC gas systems providing vapors to this steam generator and shall make such listing readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit

44. 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. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

45. (4194) Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320]

46. (4253) Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such 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 1050 and Rule 4320] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE
47. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
AUTHORITY TO CONSTRUCT

PERMIT NO: S-1141-515-12
LEGAL OWNER OR OPERATOR: CHEVRON USA INC
MAILING ADDRESS: PO BOX 1392
BAKERSFIELD, CA 93302
LOCATION: HEAVY OIL WESTERN STATIONARY SOURCE
CA
SECTION: NW21  TOWNSHIP: 31S  RANGE: 22E

EQUIPMENT DESCRIPTION:
MODIFICATION OF 62.5 MMBTU/HR NATURAL GAS/TEOR GAS-FIRED SMITH MOON STEEL STEAM GENERATOR
WITH A NORTH AMERICAN MODEL #GLE MAGNA-FRAME WITH FGR AND O2 ANALYZER/CONTROLLER (N.B.
#826): DESIGNATE AS DORMANT EMISSIONS UNIT FOR RULE 4320 COMPLIANCE

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40
CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District NSR Rule] Federally
Enforceable Through Title V Permit

2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an
application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520
Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit

3. No modification to this unit shall be performed without an Authority to Construct for such modification(s), except for
changes specified in conditions below. [District Rule 2010] Federally Enforceable Through Title V Permit

4. This equipment shall not be operated for any reason until an Authority to Construct permit is issued approving all
necessary permit changes and/or retrofits required to comply with the applicable requirements of District Rule 4306
and all other applicable District regulations. [District Rule 4320] Federally Enforceable Through Title V Permit

5. This Authority to Construct shall be implemented according to the date proposed in the District-approved Rule 4320
Emission Control Plan. [District Rule 4320] Federally Enforceable Through Title V Permit

6. The fuel supply line shall be physically disconnected from this unit. [District Rule 4320] Federally Enforceable
Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO
OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE.
Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the
approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all
Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this
Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with
all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director APCO

DAVID WARNER, Director of Permit Services
S-1141-515-12 - Nov 29 2013 9:11AM - DAV/CSOS - Joint Inspection NOT Required
Southern Regional Office  •  34946 Flyover Court  •  Bakersfield, CA 93308  •  (661) 392-5500  •  Fax (661) 392-5585
7. When designated as a dormant emissions unit, the permittee shall not be required to perform source testing or monitoring requirements otherwise required by this permit. [District Rule 4320]

8. (98) No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

9. 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

10. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit

11. Fuel H2S, total sulfur, and methane content shall be determined semi-annually using the following test methods H2S: ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, double GC for H2S and mercaptans or ASTM D6228; and methane content: ASTM D1945. [District Rule 4320]

12. Each fuel source shall be tested semi-annually for sulfur content and higher heating value. If a fuel content test fails to show compliance, weekly testing is required until compliance is demonstrated for 8 consecutive weeks, after which semi-annually testing may resume. [District Rules 2520, 9.3.2 and 4320, 5.7.6] Federally Enforceable Through Title V Permit

13. If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value. [District Rules 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit

14. If the unit is not fired on PUC-regulated natural gas and compliance is achieved through fuel sulfur content limitations, then the sulfur content of the fuel shall be determined by testing sulfur content at a location after all fuel sources are combined prior to incineration, or by performing mass balance calculations based on monitoring the sulfur content and volume of each fuel source. The sulfur content of the fuel shall be determined using the test methods referenced in this permit. [District Rules 2520, 9.3.2 and 4320, 5.7.6] Federally Enforceable Through Title V Permit

15. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by: ASTM D 1826 or D1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 2520, 9.4.2, 4305, 6.2.1 and 4320] Federally Enforceable Through Title V Permit

16. Emissions from the steam generator shall not exceed any of the following limits: 1.644 lb-SOx/MMBtu, 0.096 lb-PM10/MMBtu, or 0.0056 lb-VOC/MMBtu. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

17. Except during start-up and shutdown periods emissions from the steam generator shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.0182 lb-Nox/MMBtu or 51 ppmvd CO @ 3% O2 or 0.0375 lb-CO/MMBtu. [District Rules 2201, 4301, 5.2, 4305, 5.1, 4306, 5.1, and 4320] Federally Enforceable Through Title V Permit

18. Fuel gas sulfur content shall not exceed 5 gr/100 dscf unless SOx emissions are reduced by 95% or to 9 ppmv SOx @ 3% O2 in the exhaust with scrubber. [District Rule 4320]

19. During start-up and shutdown periods, emissions from the steam generator shall not exceed the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

20. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 5.5.6 and 4306, 5.3] Federally Enforceable Through Title V Permit

21. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4306, 3.25 and 3.27] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE
22. Maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 32.7 lb-NOx/day, 9,965 lb-NOx/yr, 41.0 lb-CO/day, and 20,531 lb-CO/yr. [District Rule 2201] Federally Enforceable Through Title V Permit

23. Source testing to measure NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3.1, 4306, 6.3.1 and 4320] Federally Enforceable Through Title V Permit

24. Compliance with SOx emission limits shall be demonstrated within 60 days of initial operation under this ATC. [District Rule 4320]

25. 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

26. 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 unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4, 4306, 5.4 and 4320] Federally Enforceable Through Title V Permit

27. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, 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 4305, 5.4, 4306, 5.4 and 4320] Federally Enforceable Through Title V Permit

28. 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 4305, 5.4, 4306, 5.4 and 4320] Federally Enforceable Through Title V Permit

29. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19; CO (ppmv) - EPA Method 10 or ARB Method 100; Stack gas oxygen (O2) - EPA Method 3 or 3A or ARB Method 100; stack gas velocities - EPA Method 2, Stack gas moisture content - EPA Method 4; SOx - EPA Method 6C or 8 or ARB Method 100; fuel gas sulfur as H2S content - EPA Method 11 or 15; and fuel hhv (MMBtu) - ASTM D 1826 or D 1945 in conjunction with ASTM D 3588. [District Rules 1081, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

30. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

31. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 4305, 5.5.2, 4306, 5.5.2 and 4320] Federally Enforceable Through Title V Permit

32. 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. [District Rules 4305, 5.5.5, 4306, 5.5.5 and 4320] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE
33. 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 108] Federally Enforceable Through Title V Permit

34. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1, 4306, 5.5.1 and 4320] Federally Enforceable Through Title V Permit

35. 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 3% 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 Rules 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

36. Permittee shall maintain with the permit a current listing of all TEOR and TVC gas systems providing vapors to this steam generator and shall make such listing readily available for District inspection upon request [District NSR Rule] Federally Enforceable Through Title V Permit

37. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320]

38. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such 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 1070 and Rule 4320]

39. 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 1070, 4305, 6.1, 4306, 6.1 and 4320] Federally Enforceable Through Title V Permit
APPENDIX C

Draft Authorities to Construct (ATCs): Option 2
San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: S-1141-26-36
LEGAL OWNER OR OPERATOR: CHEVRON USA INC
MAILING ADDRESS: PO BOX 1392
BAKERSFIELD, CA 93302

LOCATION:
HEAVY OIL WESTERN STATIONARY SOURCE
CA

SECTION: 17  TOWNSHIP: 32S  RANGE: 23E

EQUIPMENT DESCRIPTION:
MODIFICATION OF 62.5 MMBTU/HR STRUTHERS THERMOFLOOD NATURAL GAS/TEOR GAS/TVC VAPORS-FIRED STEAM GENERATOR WITH A NORTH AMERICAN MODEL GLE 4231 ULTRA-LOW NOX BURNER, FGR, A THERMOX O2 CONTROLLER, VAPOR PIPING FROM TEOR SYSTEM, VAPOR PIPING FROM TVC SYSTEMS, AND A SULFA SCRUB HYDROGEN SULFIDE (H2S) SYSTEM (COMMON TO -31, -549, -550, -551, -552, -553, -555, -556, -557 AND -558) (#48, DIS #20660-81, NATIONAL BOARD #1041): LIMIT FUEL GAS SULFUR CONTENT TO 5 GR-S/100 SCF OR REDUCE SOX BY 95% VIA AN EXHAUST SO2 SCRUBBER WITH A BRINK MIST ELIMINATOR (OR EQUIVALENT) SHARED BY UNITS S-1141-26, S-1141-31, AND S-1141-515, REPLACE/UPGRADE STEAM PIPING, REPLACE/UPGRADE BLOWER, FGR, AND AIR INTAKE COMPONENTS (IF NECESSARY), REPLACE/UPGRADE FUEL TRAIN COMPONENTS, ADD ADDITIONAL VARIOUS SPECIFIED OPERATING LOCATIONS, AND REMOVE REFERENCES AND CONDITIONS TO SULFA SCRUB H2S SYSTEM.

CONDITIONS

1. (1830) This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District NSR Rule] Federally Enforceable Through Title V Permit

2. (1831) Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit

3. This steam generator is approved to operate at the following locations: Section 1, Township: 30S, Range: 21E (Sec 1Y), NW/4 Section: 17, Township: 32S, Range: 23E or Section 36, Township: 29S, Range: 21E (Sec 36W). [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director APDCO

DAVID WARNER – Director of Permit Services
S-1141-26-36  Nov 30 2010 13:12PM – DAVD00S – Joint Inspection NOT Required

Southern Regional Office • 34946 Flyover Court • Bakersfield, CA 93308 • (661) 392-5500 • Fax (661) 392-5585
4. The permittee shall notify the District Compliance Division of each location which the operation is located in excess of 24 hours. Such notification shall be made not later than 48 hours after starting operating at the location. [District Rule 2201] Federally Enforceable Through Title V Permit

5. (98) No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102] Federally Enforceable Through Title V Permit

6. 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

7. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit

8. Steam generator shall be equipped with the following operational instrumentation: fuel gas volume flowmeter, TEOR/TVC gas flowmeter, or a flowmeter that measures the combined volume of all fuels combusted. [District Rule 2201] Federally Enforceable Through Title V Permit


10. Each fuel source, or the combined fuel stream, shall be tested monthly for sulfur content and higher heating value. If a fuel content test fails to show compliance, weekly testing is required until compliance is demonstrated for 8 consecutive weeks, after which monthly testing may resume. [District Rules 2520, 9.3.2 and 4320, 5.7.6] Federally Enforceable Through Title V Permit

11. If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value. [District Rules 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit

12. If the unit is not fired on PUC-regulated natural gas and compliance is achieved through fuel sulfur content limitations, then the sulfur content of the fuel shall be determined by testing sulfur content at a location after all fuel sources are combined prior to incineration, or by performing mass balance calculations based on monitoring the sulfur content and volume of each fuel source. The sulfur content of the fuel shall be determined using the test methods referenced in this permit. [District Rules 2520, 9.3.2 and 4320, 5.7.6] Federally Enforceable Through Title V Permit

13. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by: ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 2520, 9.4.2, 4305, 6.2.1 and 4320] Federally Enforceable Through Title V Permit

14. Emissions from the steam generator shall not exceed any of the following limits: 1.94 lb-SOx/MMBtu, 0.096 lb-PM10/MMBtu, or 0.005 lb-VOC/MMBtu. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

15. Except during start-up and shutdown periods emissions from the steam generator shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.0182 lb-NOx/MMBtu or 51 ppmvd CO @ 3% O2 or 0.0375 lb-CO/MMBtu. [District Rules 2201, 4301, 5.2, 4305, 5.1, 4306, 5.1 and 4320] Federally Enforceable Through Title V Permit

16. During start-up and shutdown periods, emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

17. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 5.5.6, 4306, 5.3 and 4320] Federally Enforceable Through Title V Permit
18. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4306, 3.25 and 3.22] Federally Enforceable Through Title V Permit

19. Maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 54.0 lb-NOx/day, 9,965 lb-NOx/yr, 56.3 lb-CO/day, and 20,531 lb-CO/yr. [District Rule 2201] Federally Enforceable Through Title V Permit

20. Source testing to measure NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3.1, 4306, 6.3.1 and 4320] Federally Enforceable Through Title V Permit

21. Exhaust from the steam generator shall be directed to the SOx scrubber listed on this permit, except when the steam generator is combusting natural gas with a sulfur content less than or equal to 5.0 gr-S/100scf. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

22. Upon the conclusion of an initial 60-day shakedown period, the SOx scrubber's control efficiency shall not be less than 95% by weight sulfur compounds, or the SO2 concentration at the stack gas outlet shall not exceed 9 ppmvd corrected to 3.0% O2. [District Rule 2201 and 4320] Federally Enforceable Through Title V Permit

23. Combined SOx emissions from Permit units S-1141-26, S-1141-31, and S-1141-515 shall not exceed 937,243 lb/calender year. [District Rule 2201] Federally Enforceable Through Title V Permit


25. Scrubber recirculation pH shall be maintained only by the addition of caustic unless prior approval for an alternative pH maintenance method is received from the District. [District Rule 2201] Federally Enforceable Through Title V Permit

26. Daily average pH of the scrubber liquor (calculated from hourly averages) shall be maintained at or above 6, and shall be continuously monitored. [District Rule 2201] Federally Enforceable Through Title V Permit

27. SO2 scrubber exhaust shall be vented to an operational Brinks mist eliminator prior to being exhausted to the atmosphere when the H2S load exceeds 1.24 lb/min for an aggregate of three or more minutes in any one-hour period. H2S concentration of the TEOR/TVC gas shall be determined and entered into the generator fuel throughput processor weekly using gas detection tubes to determine H2S concentration. The H2S load shall be calculated using the generator actual fuel volumetric flow rate and H2S concentration of the TEOR/TVC and fuel gas. [District Rule 2201] Federally Enforceable Through Title V Permit

28. Scrubber mist eliminator shall be properly cleaned and maintained. [District Rule 2201] Federally Enforceable Through Title V Permit

29. Source testing to demonstrate compliance with the SOx control efficiency of this permit and the SOx emissions limit (lb/MMBtu) of this permit shall be conducted 60 days after initial operation of the scrubber with the unit(s) firing on TEOR/TVC gas and at least annually thereafter. If the emission unit(s) are not firing on TEOR/TVC gas when the annual source test is due, the source test may be delayed until operation on TEOR/TVC gas recommences. Source testing to demonstrate compliance with the SOx control efficiency requirements of this permit and the SOx emissions limit (lb/MMBtu) of this permit shall be conducted within 60 days of recommencing firing on TEOR/TVC gas and at least annually thereafter. [District Rule 2201] Federally Enforceable Through Title V Permit

30. During a SOx scrubber shakedown period not to exceed 60 calendar days from initial operation of the modifications authorized by this ATC, SOx emissions from the steam generator shall not exceed 1.94 lb/MMBtu or 2,910 lb/day. [District Rule 2201]

31. 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

CONDITIONS CONTINUE ON NEXT PAGE
32. 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 unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4, 4306, 5.4 and 4320] Federally Enforceable Through Title V Permit

33. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, 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 4305, 5.4, 4306, 5.4 and 4320] Federally Enforceable Through Title V Permit

34. 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 4305, 5.4, 4306, 5.4 and 4320] Federally Enforceable Through Title V Permit

35. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19; CO (ppmv) - EPA Method 10 or ARB Method 100; Stack gas oxygen (O2) - EPA Method 3 or 3A or ARB Method 100; stack gas velocities - EPA Method 2; and Stack gas moisture content - EPA Method 4. [District Rules 1081, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

36. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1, 4306, 5.5.1 and 4320] Federally Enforceable Through Title V Permit

37. (518) All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

38. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 4305, 5.5.2, 4306, 5.5.2 and 4320] Federally Enforceable Through Title V Permit

39. 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. [District Rules 4305, 5.5.5, 4306, 5.5.5 and 4320] Federally Enforceable Through Title V Permit

40. 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

41. 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 3% 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 Rules 4305, 6.1 and 4306, 6.1] Federally Enforceable Through Title V Permit

42. Permittee shall maintain a record of the cumulative annual combined PM10 and SOx emissions for units S-1141-26, S-1141-31 and S-1141-515. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE
43. Permittee shall maintain daily records of the volume of the fuel gas burned, TEOR and TVC gas incinerated, and the permit number(s) of systems providing gas for incineration [District Rule 22011]

44. Permittee shall maintain with the permit a current listing of all TEOR and TVC gas systems providing vapors to this steam generator and shall make such listing readily available for District inspection upon request [District NSR Rule] Federally Enforceable Through Title V Permit

45. (533) Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

46. (535) The requirements of SJVUAPCD Rule 4351 (Amended October 19, 1995) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

47. (4194) Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320]

48. (4253) Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such 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 1070 and Rule 4320]

49. 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 1070, 4305, 6.1, 4306, 6.1 and 4320] Federally Enforceable Through Title V Permit

50. ATCs S-1141-26-36, '-31-37, '-515-13, and '-597-0 shall be implemented concurrently. [District Rule 2201] Federally Enforceable Through Title V Permit
AUTHORITY TO CONSTRUCT

PERMIT NO: S-1141-31-37

LEGAL OWNER OR OPERATOR: CHEVRON USA INC
MAILING ADDRESS: PO BOX 1392
BAKERSFIELD, CA 93302

LOCATION: HEAVY OIL WESTERN STATIONARY SOURCE
CA

SECTION: NW17  TOWNSHIP: 32S  RANGE: 23E

EQUIPMENT DESCRIPTION:
MODIFICATION OF 62.5 MMBTU/HR NATURAL GAS/TEOR/TVC GAS FIRED CE NATCO STEAM GENERATOR #59 (DIS# 20639-81, NATIONAL BOARD #1352), WITH NORTH AMERICAN MAGNA-FAME GLE ULTRA-LOW NOX BURNER, O2 CONTROLLER AND FGR PERMITTED TO OPERATE WITH EITHER AN AIR-FUEL MIXING ROD OR A MULTI-PORT (AKA GATLING GUN) PRIMARY MIXER: LIMIT FUEL GAS SULFUR CONTENT TO 5 GR-S/100 SCF OR REDUCE SOX BY 95% VIA AN EXHAUST SO2 SCRUBBER WITH BRINK MIST ELIMINATOR (OR EQUIVALENT) SHARED BY UNITS S-1141-26, S-1141-31 AND S-1141-515, REPLACE/UPGRADE STEAM PIPING, REPLACE/UPGRADE BLOWER, FGR, AND AIR INTAKE COMPONENTS (IF NECESSARY), REPLACE/UPGRADE FUEL TRAIN COMPONENTS, ADD ADDITIONAL VARIOUS SPECIFIED OPERATING LOCATIONS

CONDITIONS

1. (1830) This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District NSR Rule] Federally Enforceable Through Title V Permit

2. (1831) Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit

3. This steam generator is approved to operate at the following locations: Section 1, Township: 30S, Range: 21E (Sec 1Y), NW/4 Section: 17, Township: 32S, Range: 23E or Section 36, Township: 29S, Range: 21E (Sec 36W). [District Rule 2201] Federally Enforceable Through Title V Permit

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2055, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadreolin, Executive Director APCD

DAVID WARNER, Director of Permit Services
Southern Regional Office • 34946 Flyover Court • Bakersfield, CA 93308 • (661) 392-5500 • Fax (661) 392-5585
4. The permittee shall notify the District Compliance Division of each location which the operation is located in excess of 24 hours. Such notification shall be made not later than 48 hours after starting operating at the location. [District Rule 2201] Federally Enforceable Through Title V Permit

5. (518) All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

6. (519) Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

7. (520) The operator 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, 9.5.2] Federally Enforceable Through Title V Permit

8. (521) Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO₂, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit

9. Fuel H₂S, total sulfur, and methane content shall be determined using the following test methods H₂S: ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, double GC for H₂S and mercaptans or ASTM D6228; and methane content: ASTM D1945. [District Rule 4320] Federally Enforceable Through Title V Permit

10. Each fuel source, or the combined fuel stream, shall be tested monthly for sulfur content and higher heating value. If a fuel content test fails to show compliance, weekly testing is required until compliance is demonstrated for 8 consecutive weeks, after which monthly testing may resume. [District Rules 2520, 9.3.2 and 4320, 5.7.6] Federally Enforceable Through Title V Permit

11. If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value. [District Rules 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit

12. If the unit is not fired on PUC-regulated natural gas and compliance is achieved through fuel sulfur content limitations, then the sulfur content of the fuel shall be determined by testing sulfur content at a location after all fuel sources are combined prior to incineration, or by performing mass balance calculations based on monitoring the sulfur content and volume of each fuel source. The sulfur content of the fuel shall be determined using the test methods referenced in this permit. [District Rules 2520, 9.3.2 and 4320, 5.7.6] Federally Enforceable Through Title V Permit

13. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by: ASTM D 1826 or D1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 2520, 9.4.2, 4305, 6.2.1 and 4320] Federally Enforceable Through Title V Permit

14. (533) Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

15. The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source because this permit unit has not been modified per 40 CFR 60. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

16. The requirements of SJVUAPCD Rule 4351(Amended October 19, 1995) do not apply to this source because this permit unit is located west of Interstate Highway 5. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

17. Steam generator shall be equipped with the following operational instrumentation: fuel gas volume flowmeter, TEOR/TVC gas volume flowmeter, or a flow meter that measures combined volume of all fuels combusted. [District NSR Rule, 4305 and 4306] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE
18. Exhaust gas stack shall be equipped with adequate provisions facilitating the collection of gas samples consistent with EPA Test Methods. [District NSR Rule and 1081] Federally Enforceable Through Title V Permit

19. Flue gas recirculation system may be designed such that ambient air may be drawn into flue gas recirculation piping. [District Rule 2201] Federally Enforceable Through Title V Permit

20. Duration of start-up and shutdown shall not exceed 2 hours each per occurrence. During a start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. [District Rule 4306] Federally Enforceable Through Title V Permit

21. Permittee shall maintain daily records of the duration of each start-up and shutdown, for a period of five years and make such records readily available for District inspection upon request. [District Rule 4306] Federally Enforceable Through Title V Permit

22. During start-up and shutdown periods, emissions from the steam generator shall not exceed the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

23. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4306, 3.25 and 3.22] Federally Enforceable Through Title V Permit

24. Emission rates shall not exceed: PM10: 144.0 lb/day, SOx: 2910 lb/day, NOx (as NO2): 54.0 lb/day or 9855 lb/year, VOC: 9.0 lb/day or 3285 lb/year, CO: 40.5 lb/day or 14,783 lb/year. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

25. Emission rates shall not exceed any of the following: PM10: 0.096 lb/MMBtu, SOx (as SO2): 1.94 lb/MMBtu, or VOC: 0.006 lb/MMBtu. [District Rule 2201, 4305, 4306, 4406 and 4320] Federally Enforceable Through Title V Permit

26. Emission rates, except during startup and shutdown, shall not exceed any of the following: NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.0273 lb/MMBtu or 37 ppmv @ 3% O2. [District Rule 2201, 4305, 4306, 4406 and 4320] Federally Enforceable Through Title V Permit

27. Upon the conclusion of an initial 60 day shakedown period, the SOx scrubber's control efficiency shall not be less than 95% by weight sulfur compounds, or the SO2 concentration at the stack gas outlet shall not exceed 9 ppmvd corrected to 3.0% O2. [District Rule 2201 and 4320] Federally Enforceable Through Title V Permit

28. Exhaust from the steam generator shall be directed to the SOx scrubber listed on this permit, except when the steam generator is combusting natural gas with a sulfur content less than or equal to 5.0 gr-S/100scf. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

29. Combined SOx emissions from Permit units S-1141-26, S-1141-31, and S-1141-515 shall not exceed 937,243 lb/calender year. [District Rule 2201] Federally Enforceable Through Title V Permit


31. Scrubber recirculation pH shall be maintained only by the addition of caustic unless prior approval for an alternative pH maintenance method is received from the District. [District Rule 2201] Federally Enforceable Through Title V Permit

32. Daily average pH of the scrubber liquor (calculated from hourly averages) shall be maintained at or above 6, and shall be continuously monitored. [District Rule 2201] Federally Enforceable Through Title V Permit

33. SO2 scrubber exhaust shall be vented to an operational Brinks mist eliminator prior to being exhausted to the atmosphere when the H2S load exceeds 1.24 lb/min for an aggregate of three or more minutes in any one-hour period. H2S concentration of the TEOR/TVC gas shall be determined and entered into the generator fuel throughput processor weekly using gas detection tubes to determine H2S concentration. The H2S load shall be calculated using the generator actual fuel volumetric flow rate and H2S concentration of the TEOR/TVC and fuel gas. [District Rule 2201] Federally Enforceable Through Title V Permit

 CONDITIONS CONTINUE ON NEXT PAGE
34. Scrubber mist eliminator shall be properly cleaned and maintained. [District Rule 2201] Federally Enforceable Through Title V Permit

35. If the steam generator is not fired on PUC-regulated natural gas and compliance is achieved through fuel sulfur content limitations, then the sulfur content of the fuel shall be determined by testing sulfur content at a location after all fuel sources are combined prior to incineration, or by performing mass balance calculations based on monitoring the sulfur content and volume of each fuel source. The sulfur content of the fuel shall be determined using the test methods referenced in this permit. [District Rule 4320] Federally Enforceable Through Title V Permit

36. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

37. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

38. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

39. Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit

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

41. Source testing to demonstrate compliance with the SOx control efficiency of this permit and the SOx emissions limit (lb/MMBtu) of this permit shall be conducted 60 days after initial operation of the scrubber with the unit(s) firing on TEOR/TVC gas and at least annually thereafter. If the emission unit(s) are not firing on TEOR/TVC gas when the annual source test is due, the source test may be delayed until operation on TEOR/TVC gas recommences. Source testing to demonstrate compliance with the SOx control efficiency requirements of this permit and the SOx emissions limit (lb/MMBtu) of this permit shall be conducted within 60 days of recommencing firing on TEOR/TVC gas and at annually thereafter. [District Rules 2201 and 4320]

42. 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

43. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19; CO (ppmv) - EPA Method 10 or ARB Method 100; Stack gas oxygen (O2) - EPA Method 3 or 3A or ARB Method 100; stack gas velocities - EPA Method 2; Stack gas moisture content - EPA Method 4; and Stack gas moisture content - EPA Method 4. [District Rules 1081, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

44. 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 unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
45. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, 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 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

46. 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 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

47. 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 3% 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 Rules 4305 and 4306] Federally Enforceable Through Title V Permit

48. Permittee shall maintain with the permit a current listing of all TEOR and TVC gas systems providing vapors to this steam generator and shall make such listing readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit

49. 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. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

50. (4194) Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320]

51. (4253) Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such 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 1070 and Rule 4320]

52. Permittee shall maintain a record of the cumulative annual combined PM10 and SOx emissions for units S-1141-26, S-1141-31 and S-1141-515. [District Rule 2201] Federally Enforceable Through Title V Permit

53. Permittee shall maintain daily records of the volume of the fuel gas burned, TEOR and TVC gas incinerated, and the permit number(s) of systems providing gas for incineration [District Rule 2201]

54. Permittee shall maintain with the permit a current listing of all TEOR and TVC gas systems providing vapors to this steam generator and shall make such listing readily available for District inspection upon request [District NSR Rule] Federally Enforceable Through Title V Permit

55. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

56. ATCs S-1141-26-36, '31-37, and '515-13 shall be implemented concurrently. [District Rule 2201] Federally Enforceable Through Title V Permit
San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: S-1141-515-13
LEGAL OWNER OR OPERATOR: CHEVRON USA INC
MAILING ADDRESS: PO BOX 1392 BAKERSFIELD, CA 93302
LOCATION: HEAVY OIL WESTERN STATIONARY SOURCE CA
SECTION: NW21 TOWNSHIP: 31S RANGE: 22E

EQUIPMENT DESCRIPTION:
MODIFICATION OF 62.5 MMBTU/HR NATURAL GAS/TEOR GAS-FIRED SMITH MOON STEEL STEAM GENERATOR WITH A NORTH AMERICAN MODEL #GLE MAGNA-FLAME WITH FGR AND O2 ANALYZER/CONTROLLER (N.B. #826): LIMIT FUEL GAS SULFUR CONTENT TO 5 GR-S/100 SCF OR REDUCE SOX BY 95% VIA AN EXHAUST SO2 SCRUBBER WITH BRINK MIST ELIMINATOR (OR EQUIVALENT) SHARED BY UNITS S-1141-26, S-1141-31 AND S-1141-515, REPLACE/UPGRADE STEAM PIPING, REPLACE/UPGRADE BLOWER, FGR, AND AIR INTAKE COMPONENTS (IF NECESSARY), REPLACE/UPGRADE FUEL TRAIN COMPONENTS, ADD ADDITIONAL VARIOUS SPECIFIED OPERATING LOCATIONS

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District NSR Rule] Federally Enforceable Through Title V Permit

2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit

3. This steam generator is approved to operate at the following locations: Section 1, Township: 30S, Range: 21E (Sec 1Y), NW/4 Section: 17, Township: 32S, Range: 23E or Section 36, Township: 29S, Range: 21E (Sec 36W). [District Rule 2201] Federally Enforceable Through Title V Permit

4. The permittee shall notify the District Compliance Division of each location which the operation is located in excess of 24 hours. Such notification shall be made not later than 48 hours after starting operating at the location. [District Rule 2201] Federally Enforceable Through Title V Permit

CONSIDATIONS CONTINUE ON NEXT PAGE

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Seyed Sadredin, Executive Director APCO

DAVID WARNER—Director of Permit Services
S-1141-515-13: Nov 30 2010 12:15PM — DAVIDGSO: Joint Inspection NOT Required
Southern Regional Office • 34946 Flyover Court • Bakersfield, CA 93308 • (661) 392-5500 • Fax (661) 392-5585
5. (518) All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

6. (519) Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

7. (520) The operator 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, 9.5.2] Federally Enforceable Through Title V Permit

8. (521) Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO2, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit


10. Each fuel source, or the combined fuel stream, shall be tested monthly for sulfur content and higher heating value. If a fuel content test fails to show compliance, weekly testing is required until compliance is demonstrated for 8 consecutive weeks, after which monthly testing may resume. [District Rules 2520, 9.3.2 and 4320, 5.7.6] Federally Enforceable Through Title V Permit

11. If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value. [District Rules 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit

12. If the unit is not fired on PUC-regulated natural gas and compliance is achieved through fuel sulfur content limitations, then the sulfur content of the fuel shall be determined by testing sulfur content at a location after all fuel sources are combined prior to incineration, or by performing mass balance calculations based on monitoring the sulfur content and volume of each fuel source. The sulfur content of the fuel shall be determined using the test methods referenced in this permit. [District Rules 2520, 9.3.2 and 4320, 5.7.6] Federally Enforceable Through Title V Permit

13. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by: ASTM D 1826 or D1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 2520, 9.4.2, 4305, 6.2.1 and 4320] Federally Enforceable Through Title V Permit

14. (533) Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

15. The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source because this permit unit has not been modified per 40 CFR 60. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

16. The requirements of SJVUAPCD Rule 4351(Amended October 19, 1995) do not apply to this source because this permit unit is located west of Interstate Highway 5. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

17. Steam generator shall be equipped with the following operational instrumentation: fuel gas volume flowmeter, TEOR/TVC gas volume flowmeter, or a flowmeter that measures the combined volume of all fuels combusted. [District NSR Rule, 4305 and 4306] Federally Enforceable Through Title V Permit

18. Exhaust gas stack shall be equipped with adequate provisions facilitating the collection of gas samples consistent with EPA Test Methods. [District NSR Rule and 1081] Federally Enforceable Through Title V Permit

19. Flue gas recirculation system may be designed such that ambient air may be drawn into flue gas recirculation piping. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE
20. Duration of start-up and shutdown shall not exceed 2 hours each per occurrence. During a start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. [District Rule 4306] Federally Enforceable Through Title V Permit

21. Permittee shall maintain daily records of the duration of each start-up and shutdown, for a period of five years and make such records readily available for District inspection upon request. [District Rule 4306] Federally Enforceable Through Title V Permit

22. During start-up and shutdown periods, emissions from the steam generator shall not exceed the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

23. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4306, 3.25 and 3.22] Federally Enforceable Through Title V Permit

24. Emission rates shall not exceed: PM10: 144.0 lb/day, SOx: 2910 lb/day, NOx (as NO2): 54.0 lb/day or 9855 lb/year, VOC: 9.0 lb/day or 3285 lb/year, CO: 40.5 lb/day or 14,783 lb/year. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

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26. Emission rates, except during startup and shutdown, shall not exceed any of the following: NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 0.0273 lb/MMBtu or 37 ppmv @ 3% O2. [District Rule 2201, 4305, 4306, 4406 and 4320] Federally Enforceable Through Title V Permit

27. Exhaust from the steam generator shall be directed to the SOx scrubber except when the steam generator is combusting natural gas with a sulfur content less than or equal to 5.0 gr/1000scf. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

28. Upon the conclusion of an initial 60 day shakedown period, the SOx scrubber's control efficiency shall not be less than 95% by weight sulfur compounds, or the SO2 concentration at the stack gas outlet shall not exceed 9 ppmvd corrected to 3.0% O2. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

29. Combined SOx emissions from Permit units S-1141-26, S-1141-31, and S-1141-515 shall not exceed 937,243 lb/calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit

30. Combined PM10 emissions from Permit units S-1141-26, S-1141-31, and S-1141-515 shall not exceed 110,893 lb/calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit

31. Scrubber recirculation pH shall be maintained only by the addition of caustic unless prior approval for an alternative pH maintenance method is received from the District. [District Rule 2201] Federally Enforceable Through Title V Permit

32. Daily average pH of the scrubber liquor (calculated from hourly averages) shall be maintained at or above 6, and shall be continuously monitored. [District Rule 2201] Federally Enforceable Through Title V Permit

33. SO2 scrubber exhaust shall be vented to an operational Brinks mist eliminator prior to being exhausted to the atmosphere when the H2S load exceeds 1.24 lb/min for an aggregate of three or more minutes in any one-hour period. H2S concentration of the TEOR/TVC gas shall be determined and entered into the generator fuel throughput processor weekly using gas detection tubes to determine H2S concentration. The H2S load shall be calculated using the generator actual fuel volumetric flow rate and H2S concentration of the TEOR/TVC and fuel gas. [District Rule 2201] Federally Enforceable Through Title V Permit

34. Scrubber mist eliminator shall be properly cleaned and maintained. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITI ON NEXT PAGE
35. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

36. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

37. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

38. Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 108] Federally Enforceable Through Title V Permit

39. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 108] Federally Enforceable Through Title V Permit

40. Source testing to demonstrate compliance with the SOX control efficiency of this permit and the SOX emissions limit (lb/MMBtu) of this permit shall be conducted 60 days after initial operation of the scrubber with the unit(s) firing on TEOR/TV VC gas and at least annually thereafter. If the emission unit(s) are not firing on TEOR/TV VC gas when the annual source test is due, the source test may be delayed until operation on TEOR/TV VC gas recommences. Source testing to demonstrate compliance with the SOX control efficiency requirements of this permit and the SOX emissions limit (lb/MMBtu) of this permit shall be conducted within 60 days of recommencing firing on TEOR/TV VC gas and at annually thereafter. [District Rules 2201 and 4320]

41. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 108] Federally Enforceable Through Title V Permit

42. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19; CO (ppmv) - EPA Method 10 or ARB Method 100; Stack gas oxygen (O2) - EPA Method 3 or 3A or ARB Method 100; stack gas velocities - EPA Method 2; Stack gas moisture content - EPA Method 4; and Stack gas moisture content - EPA Method 4. [District Rules 1081, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

43. 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 unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

44. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, 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 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
45. 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 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

46. 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 3% 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 Rules 4305 and 4306] Federally Enforceable Through Title V Permit

47. Permittee shall maintain with the permit a current listing of all TEOR and TVC gas systems providing vapors to this steam generator and shall make such listing readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit

48. 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. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

49. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320]

50. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such 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 1070 and Rule 4320]

51. Permittee shall maintain a record of the cumulative annual combined PM10 and SOx emissions for units S-1141-26, S-1141-31 and S-1141-515. [District Rule 2201] Federally Enforceable Through Title V Permit

52. Permittee shall maintain daily records of the volume of the fuel gas burned, TEOR and TVC gas incinerated, and the permit number(s) of systems providing gas for incineration [District Rule 2201]

53. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

54. ATCs S-1141-26-36, '31-37, and '515-13 shall be implemented concurrently. [District Rule 2201]
San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: S-1141-597-0
LEGAL OWNER OR OPERATOR: CHEVRON USA INC
MAILING ADDRESS: PO BOX 1392
BAKERSFIELD, CA 93302
LOCATION: HEAVY OIL WESTERN STATIONARY SOURCE
CA
SECTION: NW17 TOWNSHIP: 32S RANGE: 23E
EQUIPMENT DESCRIPTION:
SULFA SCRUB HYDROGEN SULFIDE (H2S) SYSTEM SERVING STEAM GENERATORS S-1141-549, -550, -551, -552, -553, -555, -556, -557 AND -558

CONDITIONS

1. (1830) This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District NSR Rule] Federally Enforceable Through Title V Permit

2. (1831) Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit

3. (98) No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

4. The VOC content of the fluid stream handled by the Sulfa-Scrub system shall be less than ten (10) percent by weight, as determined by ASTM Methods E-260-73, E-168-67, or E-169-63. Test samples shall be taken from sampling ports immediately upstream and downstream of the Sulfa-Scrub system. VOC content shall be determined quarterly, and if compliance with the VOC content limit is demonstrated for eight consecutive quarters, the testing frequency may be changed to annual. Testing frequency shall revert to quarterly if an annual test is failed. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be canceled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadreddin, Executive Director APCO

DAVID WARNER, Director of Permit Services
S-1141-597-0  | Nov 26 2010  9:11AM — DAVID508  | Joint Inspection NOT Required
Southern Regional Office  •  34946 Flyover Court  •  Bakersfield, CA 93308  •  (661) 392-5500  •  Fax (661) 392-5585
5. All piping, fittings, and valves shall be inspected annually in accordance with EPA Method 21, with an instrument calibrated with methane. Components located in unsafe areas shall be inspected and repaired at the next process turnaround (the shutdown of a unit for maintenance and repair work). [District Rule 2201] Federally Enforceable Through Title V Permit

6. Except for components that are part of a critical process unit as defined in this permit, leaking components (having a gas leak >10,000 ppmv measured as methane) shall be repaired to a leak-free condition within 15 days of discovery. [District Rule 2201] Federally Enforceable Through Title V Permit

7. If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2201] Federally Enforceable Through Title V Permit

8. ATCs S-1141-26-36 and this ATC shall be implemented concurrently. [District Rule 2201] Federally Enforceable Through Title V Permit
APPENDIX D

Emission Profile(s)
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### Application Emissions

**Permit #:** S-1141-515-12  **Last Updated**
**Facility:** CHEVRON USA  **09/18/2010**  DAVIDSOS INC

**Equipment Pre-Baselined:** NO

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| Daily Emis. Limit (lb/Day) | 32.7 | 2446.0 | 144.0 | 41.0 | 8.4 |

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Permit #: S-1141-515-13  Last Updated
Facility: CHEVRON USA  11/01/2010  DAVIDSON

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<th>NOX</th>
<th>SOX</th>
<th>PM10</th>
<th>CO</th>
<th>VOC</th>
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<tbody>
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<td>Offset Ratio</td>
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<td>Quarterly Offset Amounts (lb/Qttr)</td>
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<tr>
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Permit #: S-1141-597-0  Last Updated
Facility: CHEVRON USA  11/01/2010  DAVIDSOS

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<th>Equipment Pre-Baselined: NO</th>
<th>NOX</th>
<th>SOX</th>
<th>PM10</th>
<th>CO</th>
<th>VOC</th>
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<td>Daily Emis. Limit (lb/Day)</td>
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<td>Quarterly Net Emissions Change (lb/Qtr)</td>
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<td></td>
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<td>Q1:</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
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<td>0.0</td>
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<td>Q2:</td>
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<td>Q4:</td>
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<td>0.0</td>
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</tbody>
</table>

Check if offsets are triggered but exemption applies

| Check if offsets are triggered but exemption applies | N | N | N | N | N |

Offset Ratio

<table>
<thead>
<tr>
<th>Quarterly Offset Amounts (lb/Qtr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1:</td>
</tr>
<tr>
<td>Q2:</td>
</tr>
<tr>
<td>Q3:</td>
</tr>
<tr>
<td>Q4:</td>
</tr>
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Appendix E

Title V Compliance Certification
San Joaquin Valley
Unified Air Pollution Control District

TITLE V MODIFICATION - COMPLIANCE CERTIFICATION FORM

I. TYPE OF PERMIT ACTION (Check appropriate box)

[ ] SIGNIFICANT PERMIT MODIFICATION    [ ] ADMINISTRATIVE
[X] MINOR PERMIT MODIFICATION    [ ] AMENDMENT

COMPANY NAME: Chevron U.S.A. Inc. (CUSA)    FACILITY ID: S-1141

1. Type of Organization: [X] Corporation    [ ] Sole Ownership    [ ] Government    [ ] Partnership    [ ] Utility

2. Owner's Name: Chevron U.S.A. Inc. (CUSA)

3. Agent to the Owner: N/A

II. COMPLIANCE CERTIFICATION (Read each statement carefully and initial all circles for confirmation):

☑ Based on information and belief formed after reasonable inquiry, the equipment identified in this application will continue to comply with the applicable federal requirement(s).

☑ Based on information and belief formed after reasonable inquiry, the equipment identified in this application will comply with applicable federal requirement(s) that will become effective during the permit term, on a timely basis.

☑ Corrected information will be provided to the District when I become aware that incorrect or incomplete information has been submitted.

☑ Based on information and belief formed after reasonable inquiry, information and statements in the submitted application package, including all accompanying reports, and required certifications are true, accurate and complete.

I declare, under penalty of perjury under the laws of the state of California, that the forgoing is correct and true:

William Fall
Name of Responsible Official (please print)

SJVBU HES Manager
Title of Responsible Official (please print)

August 26, 2010
Date
Appendix F

Health Risk Assessment
A. RMR SUMMARY

<table>
<thead>
<tr>
<th>Categories</th>
<th>Type of Unit (26, 31, 515)</th>
<th>Project Totals</th>
<th>Facility Totals</th>
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</thead>
<tbody>
<tr>
<td>Prioritization Score</td>
<td>NA</td>
<td>NA</td>
<td>&gt;1.0</td>
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<tr>
<td>Acute Hazard Index</td>
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<td>0.011</td>
<td>0.19</td>
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<tr>
<td>Chronic Hazard Index</td>
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<td>0.0</td>
<td>0.12</td>
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<td>Maximum Individual Cancer Risk ($10^{-5}$)</td>
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<td>0.03</td>
<td>7.68</td>
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<td>T-BACT Required?</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Special Permit Conditions?</td>
<td>No</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Proposed Permit Conditions

To ensure that human health risks will not exceed District allowable levels; the following permit conditions must be included for:

Unit # 26, 31, 515

No special conditions are required.

B. RMR REPORT

I. Project Description

Technical Services received a request on September 9, 2010, to perform a Risk Management Review to allow the operation of three steam generators at four new locations.

II. Analysis

Technical Services performed a prioritization using the District's HEARTs database. Since the total facility prioritization score was greater than one, a refined health risk assessment was required. Emissions calculated using Ventura County Emission Factors for Internal
Combustion of natural gas were input into the HEARTs database. The AERMOD model was used, with the parameters outlined below and meteorological data for Missouri Triangle (2004-2008) to determine the dispersion factors (i.e., the predicted concentration or X divided by the normalized source strength or Q) for a receptor grid. These dispersion factors were input into the Hot Spots Analysis and Reporting Program (HARP) risk assessment module to calculate the chronic and acute hazard indices and the carcinogenic risk for the project.

The following parameters were used for the review:

<table>
<thead>
<tr>
<th>Analysis Parameters</th>
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</thead>
<tbody>
<tr>
<td><strong>Unit 26, 31, 515</strong></td>
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<tr>
<td><strong>Source Type</strong></td>
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<tr>
<td>Stack Height (m)</td>
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<tr>
<td>Stack Diameter. (m)</td>
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<tr>
<td>Stack Exit Velocity (m/s)</td>
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<tr>
<td>Stack Exit Temp. (°K)</td>
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<tr>
<td>Burner Rating (MMBtu/hr)</td>
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</table>