



# San Joaquin Valley

AIR POLLUTION CONTROL DISTRICT



HEALTHY AIR LIVING™

JUL 27 2010

Mr. Martin Lundy  
Chevron U.S.A., Inc.  
P.O. Box 1392  
Bakersfield, CA 93302

**Re: Proposed ATC / Certificate of Conformity (Significant Mod)  
District Facility # S-1128  
Project # S-1101888**

Dear Mr. Lundy:

Enclosed for your review is the District's analysis of an application for Authority to Construct for the facility identified above. The applicant is requesting that a Certificate of Conformity with the procedural requirements of 40 CFR Part 70 be issued with this project. Chevron proposes to install and operate a sulfur scrubber to comply with Rule 4320.

After addressing any EPA comments made during the 45-day comment period, the Authority to Construct will be issued to the facility with a Certificate of Conformity. Prior to operating with modifications authorized by the Authority 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.

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: KR/cm

Enclosures

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

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

**Central Region (Main Office)**  
1990 E. Gettysburg Avenue  
Fresno, CA 93726-0244  
Tel: (559) 230-6000 FAX: (559) 230-6061

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



# San Joaquin Valley

AIR POLLUTION CONTROL DISTRICT



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JUL 27 2010

Gerardo C. Rios, Chief  
Permits Office  
Air Division  
U.S. EPA - Region IX  
75 Hawthorne St.  
San Francisco, CA 94105

**Re: Proposed ATC / Certificate of Conformity (Significant Mod)  
District Facility # S-1128  
Project # S-1101888**

Dear Mr. Rios:

Enclosed for your review is the District's engineering evaluation of an application for Authority to Construct for Chevron U.S.A., Inc. Midway Sunset Oilfield within Chevron's Heavy Oil Western Stationary Source, which has been issued a Title V permit. Chevron U.S.A., Inc. is requesting that a Certificate of Conformity, with the procedural requirements of 40 CFR Part 70, be issued with this project. Chevron proposes to install and operate a sulfur scrubber to comply with Rule 4320.

Enclosed is the engineering evaluation of this application with a copy of the current Title V permit and proposed Authority to Construct # S-1128-36-27 with Certificate 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

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# San Joaquin Valley

AIR POLLUTION CONTROL DISTRICT



HEALTHY AIR LIVING™

JUL 27 2010

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

**Re: Proposed ATC / Certificate of Conformity (Significant Mod)  
District Facility # S-1128  
Project # S-1101888**

Dear Mr. Tollstrup:

Enclosed for your review is the District's analysis of an application for Authority to Construct for the facility identified above. The applicant is requesting that a Certificate of Conformity with the procedural requirements of 40 CFR Part 70 be issued with this project. Chevron proposes to install and operate a sulfur scrubber to comply with Rule 4320.

Enclosed is the engineering evaluation of this application with a copy of the current Title V permit and proposed Authority to Construct # S-1128-36-27 with Certificate 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 30-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: KR/cm

Enclosures

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Executive Director/Air Pollution Control Officer

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**NOTICE OF PRELIMINARY DECISION  
FOR THE ISSUANCE OF AUTHORITY TO CONSTRUCT**

NOTICE IS HEREBY GIVEN that the San Joaquin Valley Air Pollution Control District solicits public comment on the proposed modification of Chevron U.S.A., Inc. for its heavy oil production operations at the Midway Sunset Oilfield within Chevron's Heavy Oil Western Stationary Source, California. Chevron proposes to install and operate a sulfur scrubber to comply with Rule 4320.

The District's analysis of the legal and factual basis for this proposed action, project #S-1101888, is available for public inspection at the District office at the address below. This will be the public's only opportunity to comment on the specific conditions of the modification. If requested by the public, the District will hold a public hearing regarding issuance of this modification. For additional information, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900. Written comments on the proposed initial permit must be submitted within 30 days of the publication date of this notice to **DAVID WARNER, DIRECTOR OF PERMIT SERVICES, SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT, 34946 FLYOVER COURT, BAKERSFIELD, CA 93308.**

# San Joaquin Valley Air Pollution Control District Authority to Construct

## Modify Steam Generator for Rule 4320 Compliance

Facility Name:	Chevron USA, Inc.	Date:	June 14, 2010
Mailing Address:	PO Box 1392 Bakersfield, CA 93302	Engineer:	Kris Rickards
Contact Person:	Martin Lundy	Lead Engineer:	Rich Karrs <i>8/7/2010</i>
Telephone:	661-654-7142	Doug Shaffer	661-282-2200
email:	<a href="mailto:martin.lundy@chevron.com">martin.lundy@chevron.com</a>	<a href="mailto:dshaffer@chevron.com">dshaffer@chevron.com</a>	
Application #(s):	S-1128-36-27		
Project #:	S-1101888		
Deemed Complete:	May 6, 2010		

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### I. PROPOSAL

Chevron USA, Inc (hereafter referred to as CUSA) requests an Authority to Construct (ATC) for the modification of a 62.5 MMBTU/hr natural gas and vapor recovery gas-fired steam generator they operate within their Heavy Oil Western Stationary Source in the Midway Sunset Oilfield of Kern County.

CUSA currently operates this unit with a scrubber that is shared with steam generator S-1128-48 and is requesting this ATC to install and operate a separate scrubber to reduce SO<sub>x</sub> emissions by 95% or to 9 ppmv. Separate scrubbers will ensure that both units are able to meet the particulate emission requirements of Rule 4320. Compliance with the NO<sub>x</sub> requirements of Rule 4320 will be made by paying annual emission fees as allowed in Rule 4320 section 5.1.2.

There are currently two SO<sub>x</sub> emission limits listed on the permit to operate. CUSA proposes to reduce the NSR SO<sub>x</sub> limit currently at 0.324 lb/MMBtu to the PSD requirement of 0.13 lb/MMBtu. The permit also lists two fuel sulfur testing timeframes (monthly and quarterly). CUSA is proposing to test the fuel sulfur content quarterly. Since this is considered a relaxation in monitoring and recordkeeping this modification is a significant modification to the Title V permit.

There will not be an increase in potential emissions of any pollutant as a result of this project. Installing the scrubber is proposed solely to comply with District Rule 4320 requirements.

Chevron USA, Inc. facility S-1128 received their Title V Permit on 4/25/01. This modification can be classified as a Title V significant modification pursuant to Rule 2520, Section 3.29, 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. Chevron USA, Inc. must apply to administratively amend their Title V Operating Permit to include the requirements of the ATC(s) issued with this project.

## II. APPLICABLE RULES

- Rule 1081 Source Sampling (12/16/93)
- Rule 2201 New and Modified Stationary Source Review Rule (9/21/06)
- Rule 2520 Federally Mandated Operating Permits (6/21/01)
- Rule 4001 New Source Performance Standards (NSPS) -- 40 CFR Part 60 Subpart Dc -- **exemption for natural gas fuel**
- Rule 4101 Visible Emissions (2/17/05)
- Rule 4102 Nuisance (12/17/92)
- Rule 4201 Particulate Matter Concentration (12/17/92)
- Rule 4301 Fuel Burning Equipment (12/17/92)
- Rule 4304 Equipment Tuning Procedures for Boilers, Steam Generators, and Process Heaters (8/19/95) – **not applicable** – Use Alternate Monitoring Plan
- Rule 4305 Boilers, Steam Generators, and Process Heaters – Phase 2 (8/21/03)
- Rule 4306 Boilers, Steam Generators, and Process Heaters – Phase 3 (10/16/08)
- Rule 4320 Advanced Emission Reduction Options for Boilers, Steam Generators, and Process heaters Greater than 5.0 MMBTU/hr (10/16/08)
- Rule 4351 Boilers, Steam Generators, and Process Heaters – Phase 1 (8/21/03) – **not applicable** – steam generator located west of I-5 in Kern County
- Rule 4405 Oxides of Nitrogen Emissions from Existing Steam Generators Used in Thermally Enhanced Oil Recovery – Central and Western Kern County Fields (12/17/92) – **not applicable** – steam generator is not an existing steam generator.
- Rule 4406 Sulfur Compounds from Oil-Field Steam Generators – Kern County (12/17/92)– **not applicable** – steam generator is not an existing steam generator
- Rule 4801 Sulfur Compounds (12/17/92)
- CH&SC Section 41700 Health Risk Assessment
- CH&SC Section 42301.6 School Notice
- Public Resources Code 21000-21177: California Environmental Quality Act (CEQA)
- California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000-15387: CEQA Guidelines

## III. PROJECT LOCATION

This steam generator is operated at Section 26, T32S, R23E in the Midway Sunset Oilfield within CUSA's Heavy Oil Western Stationary Source. This location is not located within 1,000 feet of the outer boundary of any K-12 school. Therefore, pursuant to CH&SC 42301.6, California Health and Safety Code (School Notice), public notification is not required for location near a school.

## IV. PROCESS DESCRIPTION

Chevron operates equipment for the production of crude oil and natural gas. In thermally enhanced oil recovery (TEOR), natural gas is combusted in steam generators to produce steam for injection into heavy crude oil bearing strata via injection wells to reduce the viscosity of the crude oil, thereby facilitating thermally enhanced oil production.

This Steam generator is used to steam TEOR wells and is permitted to burn vapor recovery gas.

The applicant proposes to comply with the particulate matter control requirement of Section 5.4 by installing and operating a sulfur scrubber inline with the steam generator exhaust. In addition, the applicant proposes using monthly Alternate Monitoring Scheme A (District Policy SSP 1105) with a portable analyzer. Therefore, this unit meets the requirements of Rule 4320.

The maximum operating schedule used for Potential to Emit calculation is 24 hr/day and 365 days per year.

## V. EQUIPMENT LISTING

### Pre-Project Equipment Description (see PTO in Appendix A):

S-1128-36-22 62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS-FIRED STEAM GENERATOR WITH A NORTH AMERICAN MODEL MAGNA-FLAME GLE ULTRA-LOW NOX BURNER AND WITH SO<sub>2</sub> SCRUBBER AND FLUE GAS RECIRCULATION (CUSA ID #50-3-26C)

### Proposed Modification Equipment Description (see ATC in Appendix C)

S-1128-36-27 MODIFICATION OF 62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS-FIRED STEAM GENERATOR WITH A NORTH AMERICAN MODEL MAGNA-FLAME GLE ULTRA-LOW NOX BURNER AND WITH SO<sub>2</sub> SCRUBBER AND FLUE GAS RECIRCULATION (CUSA ID #50-3-26C):INSTALL DEDICATED SOX SCRUBBER FOR RULE 4320 COMPLIANCE, LOWER SOX EMISSIONS FACTOR FROM 0.324 LB/MMBTU TO 0.13 LB/MMBTU

### Post-Project Equipment Description

S-1128-36-27 62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS-FIRED STEAM GENERATOR WITH A NORTH AMERICAN MODEL MAGNA-FLAME GLE ULTRA-LOW NOX BURNER AND WITH SO<sub>2</sub> SCRUBBER AND FLUE GAS RECIRCULATION (CUSA ID #50-3-26C)

## VI. EMISSION CONTROL TECHNOLOGY EVALUATION

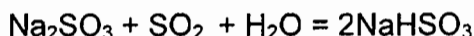
Emissions from natural gas-fired steam generators include NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, CO, and VOC.

The use of flue gas re-circulation (FGR) can reduce nitrogen oxides (NO<sub>x</sub>) 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<sub>x</sub> is formed by high flame temperatures, the lower flame temperatures produced by FGR serve to reduce thermal NO<sub>x</sub>.

The proposed SO<sub>2</sub> scrubber uses a caustic liquid (sorbent) for the absorption of sulfur compounds in the exhaust stream. The sulfur in the exhaust stream is captured and converted chemically to a sodium bisulfite compound. Sulfur dioxide is absorbed into a sodium sulfite solution. The reaction forms sodium bisulfite, which is converted back to sodium sulfite by the addition of a calcium precipitating agent. The precipitated calcium compounds are then filtered from solution and disposed of as slurry/sludge. The stoichiometry of the reaction follows:

Absorption:

sodium sulfite + sulfur dioxide + water = sodium bisulfite



Regeneration:

sodium bisulfite + calcium hydroxide (limestone) = sodium sulfite + calcium sludge



## VII. GENERAL CALCULATIONS

### A. Assumptions

- The maximum operating schedule is 24 hours per day
- The unit is fired on TEOR/natural gas
- Annual pre-project potential to emit is calculated based on 8,760 hours of operation per year
- Natural Gas Heating Value: 1,000 Btu/scf (District Practice)
- F-Factor for Natural Gas: 8,578 dscf/MMBtu corrected to 60°F (40 CFR 60, Appendix B)
- There will be no change in NO<sub>x</sub>, PM<sub>10</sub>, CO, or VOC emissions as a result of this project
- SO<sub>x</sub> emissions from the unit will be reduced, consistent with the more stringent PSD requirement

### B. Emission Factors

#### Pre-Project Emission Factors

Permit Unit	Pollutant	Pre-Project Emission Factor	Source
S-1128-36-22	SO <sub>x</sub>	0.324 lb-NO <sub>x</sub> /MMBtu	--
			Current Permit (NSR condition)

#### Post Project Emission Factors

Permit Unit	Pollutant	Pre-Project Emission Factor	Source
S-1128-36-27	SO <sub>x</sub>	0.13 lb-NO <sub>x</sub> /MMBtu <sup>1</sup>	--
			Current Permit (PSD condition)

<sup>1</sup> Reduction in SO<sub>x</sub> for Rule 4320 compliance will be made across the scrubber and is not reflected in the actual unit's emission factor



## C. Calculations

### 1. Pre-Project Potential to Emit (PE1)

Daily SO<sub>x</sub> emissions are calculated as follows:

$$62.5 \text{ (MMBtu/hr)} \times 24 \text{ (hours/day)} \times 0.324 \text{ (lb-SO}_x\text{/MMBtu)} = 486.0 \text{ lb-SO}_x\text{/day}$$

Annual SO<sub>x</sub> emissions are calculated as follows:

$$62.5 \text{ (MMBtu/hr)} \times 8,760 \text{ (hr/yr)} \times 0.324 \text{ (lb/MMBtu)} = 177,390 \text{ lb-SO}_x\text{/yr}$$

### 2. Post-Project Potential to Emit (PE2)

Daily SO<sub>x</sub> emissions are calculated as follows:

$$62.5 \text{ (MMBtu/hr)} \times 24 \text{ (hours/day)} \times 0.13 \text{ (lb-SO}_x\text{/MMBtu)} = 195.0 \text{ lb-SO}_x\text{/day}$$

Annual SO<sub>x</sub> emissions are calculated as follows:

$$62.5 \text{ (MMBtu/hr)} \times 8,760 \text{ (hr/yr)} \times 0.13 \text{ (lb/MMBtu)} = 71,175 \text{ lb-SO}_x\text{/yr}$$

### 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, or
- 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 pollutants. There is no increase in potential emissions 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 SSIPE 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 pollutants. There is no increase in potential emissions in this project. 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 post-project emissions or a Post Project Stationary Source Potential to Emit (SSPE2), equal to or exceeding one or more of the following threshold values. However, Section 3.24.2 states, "for the purposes of determining major source status, the SSPE2 shall not include 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."

This source is an existing Major Source for all 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.

Pursuant to Section 3.7 of District Rule 2201, BE = Pre-project Potential to Emit for:

- Any unit located at a non-Major Source,
- Any Highly-Utilized Emissions Unit, located at a Major Source,
- Any Fully-Offset Emissions Unit, located at a Major Source, or
- Any Clean Emissions Unit, located at a Major Source.

otherwise,

BE = Historic Actual Emissions (HAE), calculated pursuant to Section 3.22 of District Rule 2201.

This project is exempt from offsets pursuant to Rule 2201, Section 4.6.8. Therefore, BE calculations are not required.

## 7. Major Modification

This facility is an existing major source for all air contaminants.

Major Modification is defined in 40 CFR Part 51.165 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.*"

As discussed in Section VII.C.5 above, the facility is an existing Major Source for all pollutants; however, the project by itself would need to be a significant increase in order to trigger a Major Modification.

Major Modification Thresholds (Existing Major Source)			
Pollutant	Project PE (lb/year)	Threshold (lb/year)	Major Modification?
NO <sub>x</sub>	>50,000 <sup>2</sup>	50,000	Yes
SO <sub>x</sub>	>80,000 <sup>2</sup>	80,000	Yes
PM <sub>10</sub>	>30,000 <sup>2</sup>	30,000	Yes
VOC	>50,000 <sup>2</sup>	50,000	Yes

Therefore, the project is a significant increase and constitutes a Major Modification.

## 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.

This calculation procedure states that if the sum of the differences between the projected actual emissions and the baseline actual emissions (for existing emission units) or the sum of the potentials to emit (for new emission units) is significant, i.e. greater than the values listed in Rule 2201 Table 3-1, the project is a Federal major modification.

For existing emission units where there is no increase in design capacity the projected actual emissions (PAE) are equal to the emission rate at which the unit is projected to emit in any one year selected by the operator within 5 years after the unit resumes normal operation (10 years for existing units with an increase in design capacity). This projection is made by the operator and must be based on all relevant information, e.g. expected business activity.

For emission units (other than electric utility steam generating units) the baseline actual emissions (BAE) are calculated based on any 24 month period selected by the operator

<sup>2</sup> Due to the large number of affected units proposed by CUSA for facilities S-1128, S-1129, 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.

within the previous 10 year period. These emissions must not include any non-compliant operation

In calculating the emission increase (PAE – BAE), the portion of the emissions after the project that the unit could have actually emitted (during the same period used to determine BAE) that are unrelated to the particular project and emissions due to increased product demand are excluded.

For rule compliance projects, the difference between the PAE and the BAE (excluding emissions that the unit could have emitted during the baseline period) for pollutants targeted by the subject rule will be a negative value.

Additionally, it can reasonably be concluded that the difference between the PAE and the BAE (excluding emissions that the unit could have emitted during the baseline period) for non-targeted pollutants will be zero as any increase in actual emissions (after the project) would be due to increases in business activity and not due to the modification itself. Such emission increases are excluded when calculating the emission increase.

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.

## **VIII. COMPLIANCE**

### **Rule 1081 Source Testing**

Any source operation that may emit air contaminants must ensure that adequate and safe facilities are provided for use in sampling to determine compliance. This rule also specifies methods and procedures for source testing, sample collection, and compliance determination. Additional source test requirements may be imposed by other District Rules. The following conditions will remain on the ATC to ensure compliance with this rule:

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

## Rule 2201 New and Modified Stationary Source Review Rule

### 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 AIFE 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.

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 NO<sub>x</sub>, or 25 tons per year of VOC, or 15 tons per year of SO<sub>x</sub>, or 15 tons per year of PM<sub>10</sub>, or 50 tons per year of CO.

The proposed modifications are solely for compliance with District Rule 4320 requirements. The modification does not result in an increase in the physical or operational design or permitted rating of the units. There is also no increase in permitted emissions for any affected pollutant. Therefore, the project is exempt from BACT requirements.

## **B. Offsets**

### **1. Offset Applicability**

The proposed modifications are solely for compliance with District Rule 4320 requirements and are exempt from offsets if the following criteria are satisfied. District 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 NO<sub>x</sub>, or 25 tons per year of VOC, or 15 tons per year of SO<sub>x</sub>, or 15 tons per year of PM-10, or 50 tons per year of CO.

The proposed modifications are solely for compliance with District Rule 4320; and do not result in an increase in the physical or operational design of the existing facility nor an increase in permitted emissions or potential to emit exceeding the thresholds listed above. Therefore, offsets for this project are not required.

## **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. 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 SSIPE of greater than 20,000 lb/year for any pollutant.

**a. New Major Source**

This facility is an existing facility and is not a new facility. Therefore public noticing is not required for New Major Source purposes.

**b. Major Modification**

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

**c. PE > 100 lb/day**

Applications which include a new emissions unit with a Potential to Emit greater than 100 pounds during any one day for any pollutant will trigger public noticing requirements. This project does not include any new emissions units, therefore, public noticing for a new unit with a PE >100 lb/day is not necessary.

**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. SSIPE > 20,000 lb/year**

An SSIPE exceeding 20,000 pounds per year for any one pollutant triggers public notice, where  $SSIPE = SSPE2 - SSPE1$ .

There is no increase in permitted emissions as a result of this project. As a result, SSPE is not increasing with this project. Therefore, the SSIPE is zero for all pollutants and public notice will not be required for SSIPE purposes.

**2. Public Notice Action**

As discussed above, public noticing is required for this project as a major modification. Therefore, public notice documents will be submitted to the California Air Resources Board (CARB) and a public notice will be published in a local newspaper of general circulation prior to the issuance of the ATC for this equipment.

## 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 unit are based on the use of fuel and will be stated in the form of emission factors as shown:

- SOx emissions shall be reduced by 95% or to 9 ppmvd SOx @ 3% O2. [District Rules 2201, 4320, and 4406]
- ~~Testing for vapor recovery gas sulfur content shall be conducted no less than monthly. [District NSR Rule]~~
  - \*Condition removed per CUSA's request as it conflicts with fuel sulfur test frequency listed on condition 25 of PTO S-1128-36-22
- Emissions from the steam generator shall not exceed any of the following limits: 0.13 0.324 lb-SOx/MMBtu, 0.037 lb-PM10/MMBtu, or 0.003 lb-VOC/MMBtu. [District Rules 2201, 4201, 4320, 4406, and 4801]
- 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, 4320, and 4405]
- 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 4306. [District Rules 4305, 5.5.2, 4306, 5.5.2, and 4320]

## E. Compliance Assurance

### 1. Source Testing

This unit is subject to District Rule 4320, *Advanced Emission Reduction Options for Boilers, Steam Generators, and Process heaters Greater than 5.0 MMBTU/hr*. Source testing requirements, in accordance with District Rule 4320 will be discussed in Section VIII of this evaluation.

### 2. Monitoring

As required by District Rule 4320, *Advanced Emission Reduction Options for Boilers, Steam Generators, and Process heaters Greater than 5.0 MMBTU/hr*, this unit is subject to monitoring requirements. Monitoring requirements, in accordance with District Rule 4320 will be discussed in Section VIII of this evaluation.



### 3. Recordkeeping

This unit is subject to recordkeeping requirements as required by District Rule 4320, *Advanced Emission Reduction Options for Boilers, Steam Generators, and Process heaters Greater than 5.0 MMBTU/hr Recordkeeping*, in accordance with District Rule 4320 will be discussed in Section VIII of this evaluation.

### 4. Reporting

No reporting is required to demonstrate compliance with Rule 2201.

#### **Rule 2520 Federally Mandated Operating Permits**

Chevron received their Title V operating permit on 4/25/01. The proposed modification is a Minor Modification to the Title V Permit pursuant to Section 3.20 of this rule. As discussed previously in the proposal section, the facility has applied for a Certificate of Conformity (COC). Therefore, the facility must apply to administratively amend their Title V Operating Permit to include the requirements of the ATC issued with this project. The following conditions will be listed on the ATC to ensure compliance:

- {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 2520, 5.3.4]
- {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]

#### **Rule 4001 New Source Performance Standards (NSPS)**

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 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). Since the permittee is retrofitting some of the units with FGR and low NOx burners for compliance with District rules and regulations, the requirements of these sections do not apply to the unit.

#### **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. Compliance with this rule is expected provided the equipment is well maintained.

In addition, this rule is applied through the facility-wide permit. Therefore, the following condition will be removed from ATC:

- ~~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]~~

#### **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.

In addition, this rule is applied through the facility-wide permit. Therefore, compliance with this rule is expected and the following condition will be removed from ATC:

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

#### **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.

As demonstrated above, there are no increases in emissions associated with this project, therefore a health risk assessment is not necessary and no further risk analysis is required.

#### **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.

F-Factor for NG: 8,578 dscf/MMBtu at 60 °F  
PM10 Emission Factor: 0.0490 lb-PM10/MMBtu  
Percentage of PM as PM10 in Exhaust: 100%  
Exhaust Oxygen (O<sub>2</sub>) Concentration: 3%  
Excess Air Correction to F Factor =  $20.9/(20.9 - 3) = 1.17$

$$GL = \left( \frac{0.096 \text{ lb-PM}}{\text{MMBtu}} \times \frac{7,000 \text{ grain}}{\text{lb-PM}} \right) / \left( \frac{8,578 \text{ ft}^3}{\text{MMBtu}} \times 1.17 \right)$$

$$GL = 0.07 \text{ grain/dscf} < 0.1 \text{ grain/dscf}$$

Therefore, compliance with District Rule 4201 requirements is expected. Additionally, particulate matter emissions from the steam generator are already limited by Rule 2201 to a value less than or equal to the rule limit of 0.1 grain per cubic foot of gas at dry standard conditions.

Therefore, the following condition previously listed on the permits will be removed since it is unnecessary:

- Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]

The following condition, previously discussed in the Rule 2201 section, will be listed on the permit:

- Emissions from the steam generator shall not exceed any of the following limits: 0.13 0.324 lb-SO<sub>x</sub>/MMBtu, 0.037 lb-PM<sub>10</sub>/MMBtu, or 0.003 lb-VOC/MMBtu. [District Rules 2201, 4201, 4320, 4406, and 4801]

### **Rule 4301 Fuel Burning Equipment**

This rule limits SO<sub>x</sub>, NO<sub>x</sub>, and total combustion air contaminant emissions from fuel burning equipment. The requirements of this rule are that no person shall discharge into the atmosphere combustion contaminants exceeding.

- 0.1 grain per cubic foot of gas calculated to 12% of carbon dioxide at dry standard conditions at the point of discharge,
- 200 pound per hour of sulfur compounds, calculated as sulfur dioxide (SO<sub>2</sub>)
- 140 pounds per hour of nitrogen oxides, calculated as nitrogen dioxide (NO<sub>2</sub>)
- Ten pounds per hour of combustion contaminants as defined in Rule 1020 and derived from the fuel.

In addition, the unit in this project is also subject to District Rule 4320, *Advanced Emission Reduction Options for Boilers, Steam Generators, and Process heaters Greater than 5.0 MMBTU/hr*. Since emissions limits of District Rule 4320 and all other requirements are equivalent or more stringent than District Rule 4301 requirements, compliance with District Rule 4320 requirements will satisfy requirements of District Rule 4301.

Therefore, the following condition will remain on the permit:

- {584} Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of 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]

### **Rule 4304 Equipment Tuning Procedures for Boilers, Steam Generators, and Process Heaters**

This rule provides equipment tuning procedures for boilers, steam generators and process heaters to control visible emissions and emissions of both nitrogen oxides (NO<sub>x</sub>) and carbon monoxide (CO). Equipment tuning may be required of steam generators based on heat capacity and monitoring requirements. However, CUSA uses alternate monitoring for compliance with Rule 4320 and is not required to perform tuning in accordance with the procedures of this Rule.

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

This rule limits the NO<sub>x</sub> and CO emissions from boiler, steam generator, or process heater with a total heat input greater than 5.0 MMBtu/hr. Section 5.1 limits the NO<sub>x</sub> emissions to 30 ppmv @ 3% O<sub>2</sub> or 0.036 lb/MMBtu and CO emissions to 400 ppmv @ 3% O<sub>2</sub> for gaseous fuel-fired units.

In addition, the unit in this project is also subject to District Rule 4320, *Advanced Emission Reduction Options for Boilers, Steam Generators, and Process heaters Greater than 5.0 MMBTU/hr*. Since emissions limits of District Rule 4320 and all other requirements are equivalent or more stringent than District Rule 4305 requirements, compliance with District Rule 4320 requirements will satisfy requirements of District Rule 4305.

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

This rule limits the NO<sub>x</sub> and CO emissions from boiler, steam generator, or process heater with a total heat input greater than 5.0 MMBtu/hr. Section 5.1 limits the NO<sub>x</sub> emissions to 15 ppmv @ 3% O<sub>2</sub> or 0.018 lb/MMBtu and CO emissions to 400 ppmv @ 3% O<sub>2</sub> for gaseous fuel-fired units used in the oilfield.

The steam generator is currently in compliance with this rule and CUSA is proposing to comply with Rule 4320, *Advanced Emission Reduction Options for Boilers, Steam Generators, and Process heaters Greater than 5.0 MMBTU/hr*. Since emissions limits of District Rule 4320 and all other requirements are equivalent or more stringent than District Rule 4306 requirements, compliance with District Rule 4320 requirements will satisfy requirements of District Rule 4306.

**Rule 4320 Advanced Emission Reduction Options for Boilers, Steam Generators, and Process heaters Greater than 5.0 MMBTU/hr**

Section 5.1 states that an operator of a unit(s) subject to this rule shall comply with all applicable requirements of the rule and one of the following, on a unit-by-unit basis:

- 5.1.1 Operate the unit to comply with the emission limits specified in Sections 5.2 and 5.4; or
- 5.1.2 Pay an annual emissions fee to the District as specified in Section 5.3 and comply with the control requirements specified in Section 5.4; or
- 5.1.3 Comply with the applicable Low-use Unit requirements of Section 5.5.

CUSA has proposed to comply with section 5.1.2 of this Rule and maintain the current Rule 4306 compliant NO<sub>x</sub> level by paying an annual emissions fee.

Section 5.4:

Section 5.4 imposes particulate matter control requirements beginning on July 1, 2010. CUSA intends to comply with this section by installing a SO<sub>2</sub> emission control system capable of 95% reduction or 9 ppmv SO<sub>2</sub> @ 3% O<sub>2</sub> in the exhaust. In addition Section 5.5.3 requires

monitoring to demonstrate compliance with the sulfur limit. The following condition will be listed on the ATC to ensure compliance:

- SO<sub>x</sub> emissions shall be reduced by 95% or to 9 ppmvd SO<sub>x</sub> @ 3% O<sub>2</sub>. [District Rules 2201, 4320, and 4406]

Section 5.6:

Section 5.6 details requirements for operation and maintenance of the steam generator. Shutdown and start-up periods should not be more than two hours per occurrence. 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.

The following conditions will be listed on the ATC to demonstrate compliance:

- 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. Permittee shall maintain records of duration of each start-up and shutdown. [District Rules 4305, 5.5.6, 4306, 5.3, and 4320]
- 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, 3.22, and 4320]

Section 5.7:

Pursuant to Section 5.7, the applicant is required to monitor the operational characteristics recommended by the manufacturer using a method approved by the APCO. In lieu of installing and maintaining a Continuous Emissions Monitoring System (CEMS), NO<sub>x</sub> and CO emissions can be monitored using a portable analyzer and adjusting the equipment to operate in compliance. The facility already conducts monitoring that meets this requirement; therefore, the following conditions will be listed on the ATC.

- The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the 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]
- If either the NO<sub>x</sub> or CO concentrations corrected to 3% O<sub>2</sub>, 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]

- 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]
- 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]

#### Section 6.1:

Section 6.1 pertains to records verifying that all the required monitoring, maintenance and operation be maintained for a period of 5 years and made available to District personnel upon request.

- The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 3% O<sub>2</sub>, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 6.1, 4306, 6.1, and 4320]
- 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]
- Permittee shall maintain daily records of volume of natural gas burned and vapor recovery system gas incinerated. [District Rule 2201]

#### Section 6.3:

Pursuant to Sections 6.3, source testing for NO<sub>x</sub>, SO<sub>x</sub>, and CO will be required for each unit in this project to demonstrate compliance with the applicable emissions limits. Therefore, the following conditions will be listed on the ATCs:

- Whenever the unit is switched to scrubbed operation, compliance source testing for SO<sub>x</sub> shall be conducted within 60 days of initial scrubbing date unless source testing has occurred within the previous 12 months. [District Rules 2201 and 4320]

- A source test to demonstrate compliance with SOx emission limits shall be performed within 60 days of startup of this unit. An analysis of the fuel sulfur content shall be submitted for compliance with the SOx requirement in lieu of the source test for SOx. [District Rules 2201, 4305, 4306, and 4320] Y
- Permittee shall submit an analysis showing the fuel's sulfur content or conduct a source test for SOx at least once every 12 months. [District Rule 4320, 5.7.6] N
- 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, 6.3.1, 4306, 6.3.1, and 4320]
- The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
- 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]
- 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 and 4320]
- 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 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) - ARB Method 100 or EPA Method 6, 6C or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - EPA Method 11 or 15, ASTM D3246 or double GC for H2S and mercaptans performed in a laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 4305, 4306, and 4320]

Section 6.4:

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 will submit an Emissions Control Plan by January 1, 2010.

Section 7.0:

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.

The units will be in compliance with the emissions limits listed in Table 1, Section 5.2 of this rule, and periodic monitoring and source testing as required by District Rule 4320. Therefore,

requirements of the compliance schedule, as listed in Section 7.0 of District Rule 4320, are satisfied. No further discussion is required.

Conclusion:

Conditions will be incorporated into the permit in order to ensure compliance with each section of this rule, see attached draft ATC in Appendix C. Therefore, compliance with District Rule 4320 requirements is expected.

**Rule 4351 Boilers, Steam Generators and Process Heaters – Phase 1**

The purpose of this rule is to limit emissions of oxides of nitrogen (NOx) from boilers, steam generators, and process heaters to levels consistent with reasonably available control technology (RACT). This rule applies to any boiler, steam generator or process heater, with a rated heat input greater than 5 million Btu per hour that is fired with gaseous and/or liquid fuels, and is included in a major NOx source.

This rule does not apply to any unit located west of Interstate Highway 5 located in Fresno, Kern, or Kings County.

The Heavy Oil Western Stationary Source Field is west of I-5; therefore, this rule does not apply.

**Rule 4405 Oxides of Nitrogen Emissions from Existing Steam Generators Used in Thermally Enhanced Oil Recovery – Central and Western Kern County Fields**

This rule limits NOx emissions to 0.14 lb/MMBTU for existing steam generators located in Kern County. This steam generator is considered an existing steam generator and is subject to this rule and a limit of 0.14 lb-NOx/MMBTU.

In addition, the unit in this project is also subject to District Rule 4320, *Advanced Emission Reduction Options for Boilers, Steam Generators, and Process heaters Greater than 5.0 MMBTU/hr*. Since emissions limits of District Rule 4320 and all other requirements are equivalent or more stringent than District Rule 4405 requirements, compliance with District Rule 4320 requirements will satisfy requirements of District Rule 4405.

The following condition will remain on the permit to ensure compliance:

- 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, 4320, and 4405]

**Rule 4406 Sulfur Compounds from Oil-Field Steam Generators – Kern County**

This rule limits sulfur compound emissions to 0.11 lb/MMBtu for existing steam generators located in Kern County. An existing steam generator is defined as one that had an ATC or PTO prior to September 12, 1979. This steam generator is considered an existing steam generator and is subject to this rule.



In addition, the unit in this project is also subject to District Rule 4320, *Advanced Emission Reduction Options for Boilers, Steam Generators, and Process heaters Greater than 5.0 MMBTU/hr*. Since emissions limits of District Rule 4320 and all other requirements are equivalent or more stringent than District Rule 4406 requirements, compliance with District Rule 4320 requirements will satisfy requirements of District Rule 4406.

Therefore, the following conditions will be listed on the permit to ensure compliance:

- SOx emissions shall be reduced by 95% or to 9 ppmvd SOx @ 3% O2. [District Rules 2201, 4320, and 4406]
- Emissions from the steam generator shall not exceed any of the following limits: 0.13 0.324 lb-SOx/MMBtu, 0.037 lb-PM10/MMBtu, or 0.003 lb-VOC/MMBtu. [District Rules 2201, 4201, 4320, 4406, and 4801]<sup>3</sup>

### 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 SO<sub>2</sub>, on a dry basis averaged over 15 consecutive minutes.

In addition, the unit is also subject to District Rule 4320, *Advanced Emission Reduction Options for Boilers, Steam Generators, and Process heaters Greater than 5.0 MMBTU/hr*. Since emissions limits of District Rule 4320 and all other requirements are equivalent or more stringent than District Rule 4801 requirements, compliance with District Rule 4320 requirements will satisfy requirements of District Rule 4801.

Therefore, the following conditions will be listed on the permit to ensure compliance:

- Emissions from the steam generator shall not exceed any of the following limits: 0.13 0.324 lb-SOx/MMBtu, 0.037 lb-PM10/MMBtu, or 0.003 lb-VOC/MMBtu. [District Rules 2201, 4201, 4320, 4406, and 4801]<sup>4</sup>

### 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.

<sup>3</sup> 9 ppmv-SO<sub>x</sub> limit results in:  $\frac{9 \text{ parts}}{10^6 \text{ parts}} \left( \frac{8,578 \text{ dscf}}{\text{MMBtu}} \right) \frac{64 \text{ lb} \cdot \text{SO}_2}{\text{lb} \cdot \text{mole}} \left( \frac{20.9}{20.9 - 3} \right) \frac{\text{lb} \cdot \text{mole}}{379.5 \text{ dscf}} = 0.0152 \frac{\text{lb} \cdot \text{SO}_2}{\text{MMBtu}}, < 0.11 \text{ lb/MMBtu}$

<sup>4</sup> Unscrubbed emissions are:  $\frac{0.13 \text{ lb} \cdot \text{SO}_x}{\text{MMBtu}} \left( \frac{\text{MMBtu}}{8,578 \text{ dscf}} \right) \frac{1 \text{ lb} \cdot \text{mol}}{64 \text{ lb} \cdot \text{SO}_x} \left( \frac{379.5 \text{ dscf}}{\text{lb} \cdot \text{mole}} \right) \frac{10^6 \cdot \text{parts}}{\text{million}} = 89.9 \frac{\text{parts}}{\text{million}} = 0.009\%, < 0.2\% \text{ SO}_2$

## **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.
- 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**

Compliance with all applicable rules and regulations is expected. Pending a successful public notice and EPA review period, issue Authority to Construct S-1128-36-27 subject to the permit conditions on the attached draft Authority to Construct in Appendix C.

**X. BILLING INFORMATION**

Annual Permit Fees			
Permit Number	Fee Schedule	Fee Description	Annual Fee
S-1128-36-27	3020-02-H	62.5 MMBTU/hr	\$ 1,030

**Appendices**

- A: Current PTO
- B: TVFORM-009
- C: Draft ATC

# APPENDIX A

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Current PTO

# AUTHORITY TO CONSTRUCT

PERMIT NO: S-1128-36-26

ISSUANCE DATE: 06/15/2010

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

LOCATION: HEAVY OIL WESTERN STATIONARY SOURCE  
KERN COUNTY

SECTION: 26 TOWNSHIP: 32S RANGE: 23E

## EQUIPMENT DESCRIPTION:

MODIFICATION OF 62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS-FIRED STEAM GENERATOR WITH A NORTH AMERICAN MODEL MAGNA-FLAME GLE ULTRA-LOW NOX BURNER AND WITH DEDICATED SO2 SCRUBBER AND FLUE GAS RECIRCULATION (CUSA ID #50-3-26C): REDUCE SOX BY 95% BY WEIGHT VIA SCRUBBING OR TO AN OUTLET CONCENTRATION NOT EXCEEDING 9 PPMVD @ 3% O2 ALL 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. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. 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
5. 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

DAVID WARNER, Director of Permit Services

S-1128-36-26 : Jul 22 2010 3:32PM - RICKARDK : Joint Inspection NOT Required

Southern Regional Office • 34946 Flyover Court • Bakersfield, CA 93308 • (661) 392-5500 • Fax (661) 392-5585

6. 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
7. Steam generator firebox convection section, scrubber bypass valve, and all flue gas ductwork shall be maintained with no detectable leaks. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Scrubber recirculation liquid 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 NSR Rule] Federally Enforceable Through Title V Permit
9. Scrubber liquor pH shall be maintained between 6 and 8 and shall be continuously monitored and recorded during operation of this unit. [District NSR Rule and District Rule 2520, 9.4.1] Federally Enforceable Through Title V Permit
10. Scrubber mist eliminator shall be properly cleaned and maintained per the recommendations of the manufacturer. Each occurrence of the cleaning and maintenance shall be recorded. [District NSR Rule and District Rule 2520, 9.4.1] Federally Enforceable Through Title V Permit
11. Scrubber recirculation liquor liquid to gas ratio shall be maintained at no less than 8.0 gpm/1000 acfm. The scrubber recirculation liquor liquid to gas ratio shall be recorded on a weekly basis. [District NSR Rule and District Rule 2520, 9.4.1] Federally Enforceable Through Title V Permit
12. Testing for vapor recovery gas sulfur content shall be conducted no less than monthly. [District NSR Rule] Federally Enforceable Through Title V Permit
13. Emissions from the steam generator shall not exceed any of the following limits: 0.324 lb-SO<sub>x</sub>/MMBtu, 0.037 lb-PM<sub>10</sub>/MMBtu, or 0.003 lb-VOC/MMBtu. [District Rules 2201 & 4320] Federally Enforceable Through Title V Permit
14. Except during start-up and shutdown periods emissions from the steam generator shall not exceed any of the following limits: 15 ppmvd NO<sub>x</sub> @ 3% O<sub>2</sub> or 0.0182 lb-NO<sub>x</sub>/MMBtu or 51 ppmvd CO @ 3% O<sub>2</sub> or 0.0375 lb-CO/MMBtu. [District NSR Rule, and District Rules 4301, 5.2, 4305, 5.1, 4306, 5.1, 4320 and 4351, 5.1] Federally Enforceable Through Title V Permit
15. During start-up and shutdown periods emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NO<sub>x</sub>/MMBtu or 0.084 lb-CO/MMBtu. [District NSR Rule] 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 insofar as technologically possible. Permittee shall maintain records of duration of each start-up and shutdown that exceeds two hours. [District Rules 4305, 5.5.6, 4306, 5.3 and 4320] 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 4306, 3.25, 3.22 and 4320] 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: 54.0 lb-NO<sub>x</sub>/day, 9,965 lb-NO<sub>x</sub>/yr, 56.3 lb-CO/day, and 20,531 lb-CO/yr. [District Rule 2201 and 4320] Federally Enforceable Through Title V Permit
19. Source testing to measure natural gas-combustion NO<sub>x</sub> and CO emissions from this unit shall be conducted within 60 days of initial start-up. [District NSR Rule and District Rules 4305, 6.3.1, 4306, 6.3.1, 4320 and 4351, 6.3.1] Federally Enforceable Through Title V Permit
20. Whenever the unit is switched to scrubbed operation, compliance source testing for SO<sub>x</sub> shall be conducted within 60 days of initial scrubbing date unless source testing has occurred within the previous 12 months. [District NSR Rule] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

21. Source testing to measure natural gas-combustion NO<sub>x</sub> 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, 4320 and 4351, 6.3.1] Federally Enforceable Through Title V Permit
22. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
23. 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
24. 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<sub>2</sub>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
25. If the steam generator is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested quarterly 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 quarterly testing may resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
26. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> at least once every 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 NO<sub>x</sub> or CO concentrations corrected to 3% O<sub>2</sub>, 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. 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
29. NO<sub>x</sub> 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, 4306, 6.2 and 4320] Federally Enforceable Through Title V Permit
30. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 6.2, 4306, 6.2 and 4320] Federally Enforceable Through Title V Permit
31. Stack gas oxygen (O<sub>2</sub>) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 6.2, 4306, 6.2 and 4320] Federally Enforceable Through Title V Permit
32. 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

CONDITIONS CONTINUE ON NEXT PAGE

33. 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
34. 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 and 4320] 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 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
36. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 3% O<sub>2</sub>, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 6.1, 4306, 6.1 and 4320] Federally Enforceable Through Title V Permit
37. Permittee shall maintain daily records of volume of natural gas burned and vapor recovery system gas incinerated. [District NSR Rule] Federally Enforceable Through Title V Permit
38. 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
39. Records of the scrubber liquor pH, occurrences of the cleaning and maintenance of the scrubber mist eliminator, and the scrubber liquid-to-gas ratio shall be maintained. The records shall include identification of the equipment, date of inspection, corrective action taken, and identification of the individual performing the inspection. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
40. 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
41. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of 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
42. The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c 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
43. All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 77-29] Federally Enforceable Through Title V Permit
44. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 77-29] Federally Enforceable Through Title V Permit
45. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violations of this permit or of any law or regulations which such malfunction may cause. [PSD SJ 77-29] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE



46. The owner and operator of the proposed project shall construct and operate the proposed stationary source in compliance with all other applicable provisions of 40 CFR 52, 60 and 61 and all other applicable Federal, State and local regulations. [PSD SJ 77-29] Federally Enforceable Through Title V Permit
47. Annual source testing shall be performed on one vapor recovery system consisting of 32 wells and on a second vapor recovery system on 3 wells to establish the efficiency of the vapor recovery system. The efficiency the 3-well system. [PSD SJ 77-29] Federally Enforceable Through Title V Permit
48. Permittee shall operate and maintain operable scrubbers on the equipment designated below: (2) 50 MMBtu/hr steam generators and (2) 22 MMBtu/hr steam generators to be located in Section 26, T32S, R23E, M.D.B. & M., Kern County, CA. (One of the 50 MMBtu/hr units is to be scrubbed for offset purposes.) Exhaust gases from the above units shall be ducted through operating scrubbers. [PSD SJ 77-29] Federally Enforceable Through Title V Permit
49. Permittee shall not discharge into the atmosphere SO<sub>2</sub> in excess of 0.13 lb/MMBtu (maximum 2-hour average) for the steam generators designated in condition 38. [PSD SJ 77-29] Federally Enforceable Through Title V Permit
50. Permittee shall operate, and maintain operable excess oxygen control equipment on the units designated below: (1) 50 MMBtu/hr steam generator and (2) 22 MMBtu/hr steam generators to be located in Section 26, T32S, R23E, M.D.B. & M., Kern County, CA. The concentration of excess oxygen in the exhaust gases shall not exceed 3% for the above units on a 24-hour average basis. The excess oxygen level shall be recorded continuously in a permanent record and shall be available for periodic inspection by USEPA. [PSD SJ 77-29] Federally Enforceable Through Title V Permit
51. Permittee shall not discharge into the atmosphere NO<sub>x</sub> in excess of 0.50 lb/MMBtu (maximum 2-hour average) for the 50 MMBtu/hr steam generator and 0.57 lb/MMBtu (maximum 2-hour average) for the 22 MMBtu/hr steam generators designated in condition 40. [PSD SJ 77-29] Federally Enforceable Through Title V Permit
52. At such times as specified by the USEPA, permittee shall conduct performance tests for SO<sub>2</sub> and NO<sub>x</sub>, and furnish the District and the USEPA a written report of the results of such tests. The tests for SO<sub>2</sub> and NO<sub>x</sub> shall be conducted on an annual basis and at the maximum operating capacity of the facilities being tested. [PSD SJ 77-29] Federally Enforceable Through Title V Permit
53. The performance tests shall be conducted for the equipment designated below: for SO<sub>2</sub> the units designated in condition 38; for NO<sub>x</sub> the units designated in condition 40. Performance tests for the emissions of SO<sub>2</sub> and NO<sub>x</sub> shall be conducted and results reported in accordance with the methods set forth in Parts 60.8 and 60.46 of the Standards of Performance for New Sources on the equipment named above. The USEPA shall be notified in writing at least 30 days in advance of such test to allow time for an observer to be present and to allow time for development of an approvable performance test plan. Such prior approval will minimize the possibility of USEPA rejection of test results for procedural deficiencies. [PSD SJ 77-29] Federally Enforceable Through Title V Permit
54. All correspondence as required by this permit shall be forwarded to: a) Director, Enforcement Div (Attn: E-5), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 77-29] Federally Enforceable Through Title V Permit
55. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NO<sub>x</sub> 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 NO<sub>x</sub> emission limit listed in Rule 4320. [District Rule 4320]
56. 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]
57. On and after July 1, 2011, the permittee shall submit an analysis showing the fuel's sulfur content at least once every year. Valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy this requirement, provided they establish the fuel parameters mentioned above. [District Rule 4320]
58. 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

CONDITIONS CONTINUE ON NEXT PAGE

59. The following test methods shall be used: NO<sub>x</sub> (ppmv) - EPA Method 7E or ARB Method 100, NO<sub>x</sub> (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SO<sub>x</sub> (lb/MMBtu) - ARB Method 100 or EPA Method 6, 6C or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - EPA Method 11 or 15, ASTM D3246 or double GC for H<sub>2</sub>S and mercaptans performed in a laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
60. SO<sub>x</sub> emissions shall be reduced by 95% or to 9 ppmvd SO<sub>x</sub> @ 3% O<sub>2</sub>. [District Rule 2201] Federally Enforceable Through Title V Permit

# APPENDIX B

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TVFORM-009

RECEIVED  
APR 12 2010  
SJVAPCD  
Southern Region

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  
 MINOR PERMIT MODIFICATION                                       AMENDMENT

COMPANY NAME: <b>Chevron U.S.A. Inc. (CUSA)</b>	FACILITY ID: <b>S-1128</b>
1. Type of Organization: <input checked="" type="checkbox"/> Corporation <input type="checkbox"/> Sole Ownership <input type="checkbox"/> Government <input type="checkbox"/> Partnership <input type="checkbox"/> Utility	
2. Owner's Name: <b>Chevron U.S.A. Inc. (CUSA)</b>	
3. Agent to the Owner: <b>N/A</b>	

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  
Signature of Responsible Official

4/7/10  
Date

William Fall  
Name of Responsible Official (please print)

Rule 4320 - S-1128-36

HE&S Manager  
Title of Responsible Official (please print)

# APPENDIX C

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Draft ATC

San Joaquin Valley  
Air Pollution Control District

**AUTHORITY TO CONSTRUCT**

ISSUANCE DATE: DRAFT

PERMIT NO: S-1128-36-27

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

LOCATION: HEAVY OIL WESTERN STATIONARY SOURCE  
KERN COUNTY

SECTION: 26 TOWNSHIP: 32S RANGE: 23E

**EQUIPMENT DESCRIPTION:**

MODIFICATION OF 62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS-FIRED STEAM GENERATOR WITH A NORTH AMERICAN MODEL MAGNA-FLAME GLE ULTRA-LOW NOX BURNER AND WITH SO2 SCRUBBER AND FLUE GAS RECIRCULATION (CUSA ID #50-3-26C);INSTALL DEDICATED SOX SCRUBBER FOR RULE 4320 COMPLIANCE, LOWER SOX EMISSIONS FACTOR FROM 0.324 LB/MMBTU TO 0.13 LB/MMBTU

**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. SOx emissions shall be reduced by 95% or to 9 ppmvd SOx @ 3% O2. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
4. Steam generator firebox convection section, scrubber bypass valve, and all flue gas ductwork shall be maintained with no detectable leaks. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Scrubber recirculation liquid 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

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 APCCO

DAVID WARNER, Director of Permit Services

S-1128-36-27 : Jul 13 2010 1:25PM - RICKARDK : Joint Inspection NOT Required

6. Scrubber liquor pH shall be maintained between 6 and 8 and shall be continuously monitored and recorded during operation of this unit. [District Rules 2201 and 2520, 9.4.1] Federally Enforceable Through Title V Permit
7. Scrubber mist eliminator shall be properly cleaned and maintained per the recommendations of the manufacturer. Each occurrence of the cleaning and maintenance shall be recorded. [District Rules 2201 and 2520, 9.4.1] Federally Enforceable Through Title V Permit
8. Scrubber recirculation liquor liquid to gas ratio shall be maintained at no less than 8.0 gpm/1000 acfm. The scrubber recirculation liquor liquid to gas ratio shall be recorded on a weekly basis. [District Rules 2201 and 2520, 9.4.1] Federally Enforceable Through Title V Permit
9. Emissions from the steam generator shall not exceed any of the following limits: 0.13 lb-SO<sub>x</sub>/MMBtu, 0.037 lb-PM<sub>10</sub>/MMBtu, or 0.003 lb-VOC/MMBtu. [District Rules 2201, 4201, 4320, 4406, and 4801] Federally Enforceable Through Title V Permit
10. Except during start-up and shutdown periods emissions from the steam generator shall not exceed any of the following limits: 15 ppmvd NO<sub>x</sub> @ 3% O<sub>2</sub> or 0.0182 lb-NO<sub>x</sub>/MMBtu or 51 ppmvd CO @ 3% O<sub>2</sub> or 0.0375 lb-CO/MMBtu. [District Rules 2201, 4301, 5.2, 4305, 5.1, 4306, 5.1, 4320, and 4405] Federally Enforceable Through Title V Permit
11. During start-up and shutdown periods emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NO<sub>x</sub>/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
12. 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. Permittee shall maintain records of duration of each start-up and shutdown. [District Rules 4305, 5.5.6, 4306, 5.3, and 4320] Federally Enforceable Through Title V Permit
13. 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, 3.22, and 4320] Federally Enforceable Through Title V Permit
14. Maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 54.0 lb-NO<sub>x</sub>/day, 9,965 lb-NO<sub>x</sub>/yr, 56.3 lb-CO/day, and 20,531 lb-CO/yr. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
15. Whenever the unit is switched to scrubbed operation, compliance source testing for SO<sub>x</sub> shall be conducted within 60 days of initial scrubbing date unless source testing has occurred within the previous 12 months. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
16. A source test to demonstrate compliance with SO<sub>x</sub> emission limits shall be performed within 60 days of startup of this unit. An analysis of the fuel sulfur content shall be submitted for compliance with the SO<sub>x</sub> requirement in lieu of the source test for SO<sub>x</sub>. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
17. Permittee shall retain on site an analysis showing the fuel's sulfur content or conduct a source test for SO<sub>x</sub> at least once every 12 months. [District Rule 4320, 5.7.6]
18. Source testing to measure natural gas-combustion NO<sub>x</sub> 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
19. 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
20. 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

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21. 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<sub>2</sub>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
22. If the steam generator is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested quarterly 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 quarterly testing may resume. [District Rules 2201 and 2520, 9.3.2] Federally Enforceable Through Title V Permit
23. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the 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
24. If either the NO<sub>x</sub> or CO concentrations corrected to 3% O<sub>2</sub>, 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
25. 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
26. 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
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 and 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 following test methods shall be used: NO<sub>x</sub> (ppmv) - EPA Method 7E or ARB Method 100, NO<sub>x</sub> (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or 10B or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, SO<sub>x</sub> (lb/MMBtu) - ARB Method 100 or EPA Method 6, 6C or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content - EPA Method 11 or 15, ASTM D3246 or double GC for H<sub>2</sub>S and mercaptans performed in a laboratory, fuel gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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31. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 3% O<sub>2</sub>, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 6.1, 4306, 6.1, and 4320] Federally Enforceable Through Title V Permit
32. Permittee shall maintain daily records of volume of natural gas burned and vapor recovery system gas incinerated. [District Rule 2201] Federally Enforceable Through Title V Permit
33. 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
34. Records of the scrubber liquor pH, occurrences of the cleaning and maintenance of the scrubber mist eliminator, and the scrubber liquid-to-gas ratio shall be maintained. The records shall include identification of the equipment, date of inspection, corrective action taken, and identification of the individual performing the inspection. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
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
36. 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
37. {584} Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of 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
38. {468} The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c 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
39. All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 77-29] Federally Enforceable Through Title V Permit
40. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 77-29] Federally Enforceable Through Title V Permit
41. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violations of this permit or of any law or regulations which such malfunction may cause. [PSD SJ 77-29] Federally Enforceable Through Title V Permit
42. The owner and operator of the proposed project shall construct and operate the proposed stationary source in compliance with all other applicable provisions of 40 CFR 52, 60 and 61 and all other applicable Federal, State and local regulations. [PSD SJ 77-29] Federally Enforceable Through Title V Permit
43. Annual source testing shall be performed on one vapor recovery system consisting of 32 wells and on a second vapor recovery system on 3 wells to establish the efficiency of the vapor recovery system. The efficiency the 3-well system. [PSD SJ 77-29] Federally Enforceable Through Title V Permit

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44. Permittee shall operate and maintain operable scrubbers on the equipment designated below: (2) 50 MMBtu/hr steam generators and (2) 22 MMBtu/hr steam generators to be located in Section 26, T32S, R23E, M.D.B. & M., Kern County, CA. (One of the 50 MMBtu/hr units is to be scrubbed for offset purposes.) Exhaust gases from the above units shall be ducted through operating scrubbers. [PSD SJ 77-29] Federally Enforceable Through Title V Permit
45. Permittee shall not discharge into the atmosphere SO<sub>2</sub> in excess of 0.13 lb/MMBtu (maximum 2-hour average) for the steam generators designated in the condition above. [PSD SJ 77-29] Federally Enforceable Through Title V Permit
46. Permittee shall operate, and maintain operable excess oxygen control equipment on the units designated below: (1) 50 MMBtu/hr steam generator and (2) 22 MMBtu/hr steam generators to be located in Section 26, T32S, R23E, M.D.B. & M., Kern County, CA. The concentration of excess oxygen in the exhaust gases shall not exceed 3% for the above units on a 24-hour average basis. The excess oxygen level shall be recorded continuously in a permanent record and shall be available for periodic inspection by USEPA. [PSD SJ 77-29] Federally Enforceable Through Title V Permit
47. Permittee shall not discharge into the atmosphere NO<sub>x</sub> in excess of 0.50 lb/MMBtu (maximum 2-hour average) for the 50 MMBtu/hr steam generator and 0.57 lb/MMBtu (maximum 2-hour average) for the 22 MMBtu/hr steam generators designated in condition 40. [PSD SJ 77-29] Federally Enforceable Through Title V Permit
48. At such times as specified by the USEPA, permittee shall conduct performance tests for SO<sub>2</sub> and NO<sub>x</sub>, and furnish the District and the USEPA a written report of the results of such tests. The tests for SO<sub>2</sub> and NO<sub>x</sub> shall be conducted on an annual basis and at the maximum operating capacity of the facilities being tested. [PSD SJ 77-29] Federally Enforceable Through Title V Permit
49. The performance tests shall be conducted for the equipment designated below: for SO<sub>2</sub> the units designated in condition 38; for NO<sub>x</sub> the units designated in condition 40. Performance tests for the emissions of SO<sub>2</sub> and NO<sub>x</sub> shall be conducted and results reported in accordance with the methods set forth in Parts 60.8 and 60.46 of the Standards of Performance for New Sources on the equipment named above. The USEPA shall be notified in writing at least 30 days in advance of such test to allow time for an observer to be present and to allow time for development of an approvable performance test plan. Such prior approval will minimize the possibility of USEPA rejection of test results for procedural deficiencies. [PSD SJ 77-29] Federally Enforceable Through Title V Permit
50. All correspondence as required by this permit shall be forwarded to: a) Director, Enforcement Div (Attn: E-5), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 77-29] Federally Enforceable Through Title V Permit
51. {4194} Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NO<sub>x</sub> 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 NO<sub>x</sub> emission limit listed in Rule 4320. [District Rule 4320]
52. {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]

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