



**San Joaquin Valley**  
AIR POLLUTION CONTROL DISTRICT



**HEALTHY AIR LIVING™**

**JUL 30 2013**

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

**Re: Notice of Minor Title V Permit Modification  
District Facility # S-1141  
Project # S-1130117**

Dear Mr. Rios:

Enclosed for you to review is an application for minor Title V permit modification for the facility identified above. Chevron USA Inc is proposing a Title V minor permit modification to modify Permit(s) to Operate (PTOs) S-1141-0-2, -549-11, -550-9, -551-8, -552-8, -553-8, -555-12, -556-13, -557-11, and -558-9 of the facility's current Title V operating permit. Chevron USA, Inc is proposing a Title V minor permit modification to incorporate comments made on their renewed Title V permit issued on January 31, 2012 under project S-1063375.

Enclosed is the engineering evaluation with the following attachments: proposed modified Title V PTO(s) S-1141-0-3, -549-12, -550-10, -551-9, -552-9, -553-9, -555-15, -556-16, -557-14, and -558-10, application, and previous Title V permit. Please submit your written comments on this project within the 45-day comment period that begins on the date you receive this letter.

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

Sincerely

David Warner  
Director of Permit Services

Enclosures  
cc: Vanesa Gonzalez, Permit Services

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



**JUL 30 2013**

Martin Lundy  
Chevron USA Inc  
P O Box 1392  
Bakersfield, CA 93302

**Re: Notice of Minor Title V Permit Modification  
District Facility # S-1141  
Project # S-1130117**

Dear Mr. Lundy:

Enclosed is the District's analysis of your application for minor Title V permit modification for the facility identified above. You proposed a Title V minor permit modification to modify Permit(s) to Operate S-1141-0-2, -549-11, -550-9, -551-8, -552-8, -553-8, -555-12, -556-13, -557-11, and -558-9 of the current Title V operating permit. Chevron USA, Inc is proposing a Title V minor permit modification to incorporate comments made on their renewed Title V permit issued on January 31, 2012 under project S-1063375.

Enclosed is the engineering evaluation with the following attachments: proposed modified Title V PTO(s) S-1141-0-3, -549-12, -550-10, -551-9, -552-9, -553-9, -555-15, -556-16, -557-14, and -558-10, application, and previous Title V permit. This project will be finalized after the 45-day EPA comment period.

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

Sincerely,

David Warner  
Director of Permit Services

Enclosures  
cc: Vanesa Gonzalez, Permit Services

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# **TITLE V APPLICATION REVIEW**

Minor Modification  
Project #: S-1130117

Engineer: Vanesa Gonzalez  
Date: July 18, 2013

Facility Number: S-1141  
Facility Name: Chevron USA Inc  
Mailing Address: P O Box 1392  
Bakersfield, CA 93302

Contact Name: Martin Lundy  
Phone: (661) 654-7142

Responsible Official: Arthur Lewis  
Title: Operations Manger

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## **I. PROPOSAL**

Chevron USA, Inc is proposing a Title V minor permit modification to incorporate comments made on their renewed Title V permit issued on January 31, 2012 under project S-1054423. In addition the facility has made comments on current PTOs that have been implemented through ATCs since the issuance of the renewed Title V permit. This minor modification application review will address changes to current permits as a result of the facility comments. See Attachment D for a complete discussion of Chevron's comments and Districts response.

The purpose of this evaluation is to identify all applicable requirements, determine if the facility will comply with the applicable requirements and to provide the legal and factual basis for the proposed revisions.

## **II. FACILITY LOCATION**

Heavy Oil Western Stationary Source

### III. EQUIPMENT DESCRIPTION

#### S-1141-0-3: FACILITY-WIDE REQUIREMENTS

S-1141-549-11: 62.5 MMBTU/HR NATURAL/TEOR/TVC GAS-FIRED STRUTHERS STEEL STEAM GENERATOR WITH A NORTH AMERICAN MAGNA-FLAME GLE ULTRA LOW-NOX BURNER, WITH AN O2 ANALYZER/CONTROLLER AND FLUE GAS RECIRCULATION (FGR) SYSTEM WITH VARIABLE SPEED INTAKE AIR BLOWER, ORIFICE PLATE(S), AND ELECTRONIC CONTROLS (NATIONAL BOARD #1026)

S-1141-550-9: 62.5 MMBTU/HR NATURAL/TEOR/TVC GAS-FIRED SMITH MOON STEEL STEAM GENERATOR WITH A NORTH AMERICAN MAGNA-FLAME GLE ULTRA-LOW NOX BURNER WITH AN O2 ANALYZER/CONTROLLER AND FGR WITH VARIABLE SPEED INTAKE AIR BLOWER, ORIFICE PLATE(S), AND ELECTRONIC CONTROLS (NATIONAL BOARD #879)

S-1141-551-8: 62.5 MMBTU/HR NATURAL/TEOR/TVC GAS FIRED CE NATCO STEAM GENERATOR (NATIONAL BOARD #2369) WITH A NORTH AMERICAN MODEL MAGNA-FLAME GLE ULTRA LOW NOX BURNER, AN O2 CONTROLLER, AND A FLUE GAS RECIRCULATION SYSTEM

S-1141-552-8: 62.5 MMBTU/HR NATURAL/TEOR/TVC GAS FIRED CE NATCO STEAM GENERATOR (NATIONAL BOARD #192) WITH NORTH AMERICAN MAGNA-FLAME GLE ULTRA-LOW NOX BURNER, O2 CONTROLLER, AND FGR

S-1141-553-8: 62.5 MMBTU/HR NATURAL/TEOR/TVC GAS FIRED SMITH MOON STEEL STEAM GENERATOR (NATIONAL BOARD #552) WITH NORTH AMERICAN GLE MAGNA FLAME LOW NOX BURNER, O2 ANALYZER/CONTROLLER, AND FGR WITH VARIABLE SPEED INTAKE AIR BLOWER, ORIFICE PLATE(S), AND ELECTRONIC CONTROLS

S-1141-555-12: 62.5 MMBTU/HR NATURAL/TEOR/TVC GAS FIRED SMITH MOON STEEL STEAM GENERATOR (NATIONAL BOARD #7953) WITH NORTH AMERICAN MAGNA-FLAME GLE ULTRA-LOW NOX BURNER, O2 CONTROLLER, FGR AND SO2 SCRUBBER SHARED WITH '-556 AND '-557

S-1141-556-13: 62.5 MMBTU/HR NATURAL/TEOR/TVC GAS-FIRED SMITH MOON STEEL STEAM GENERATOR (NATIONAL BOARD #653) WITH A NORTH AMERICAN MAGNA-FLAME GLE ULTRA-LOW NOX BURNER WITH O2 ANALYZER/CONTROLLER AND FGR WITH VARIABLE SPEED INTAKE

AIR BLOWER, ORIFICE PLATE(S), ELECTRONIC CONTROLS AND SHARED SO2 SCRUBBER LISTED ON S-1141-555

S-1141-557-11: 62.5 MMBTU/HR NATURAL/TEOR/TVC GAS-FIRED C.E. NATCO STEAM GENERATOR (NATIONAL BOARD #9333, SMPS #8) WITH A NORTH AMERICAN MAGNA-FLAME GLE ULTRA LOW-NOX BURNER, WITH O2 ANALYZER/CONTROLLER AND FLUE GAS RECIRCULATION (FGR) SYSTEM WITH VARIABLE SPEED INTAKE AIR BLOWER, ORIFICE PLATE(S), ELECTRONIC CONTROLS AND SHARED SO2 SCRUBBER LISTED ON S-1141-555

S-1141-558-9: 62.5 MMBTU/HR NATURAL/TEOR/TVC GAS FIRED CE NATCO STEAM GENERATOR (NATIONAL BOARD #2398) WITH A NORTH AMERICAN MAGNA-FLAME MODEL GLE ULTRA LOW NOX BURNER, FGR AND O2 CONTROLLER

#### **IV. SCOPE OF EPA AND PUBLIC REVIEW**

This change to a Title V permit is considered to be a minor modification and, as such, requires no public review.

#### **V. APPLICABLE REQUIREMENTS**

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

#### **VI. DESCRIPTION OF PROPOSED MODIFICATIONS**

The facility has submitted comments to further streamline their facility wide permits. The facility has also commented that S-1141-549-12, -550-10, -551-9, -552-9, -553-9, -555-15, -556-16, -557-14, and -558-10 should be modified to include permit requirements that were inadvertently left off during the implementation of the ATCs. The facilities comments and District response are included in Attachment D.

##### S-1141-0-3:

Conditions 1 through 44 of the permit requirements have been included as conditions 1 through 44 of the proposed requirements.

Condition 45 of the permit requirements has been modified to allow the facility to submit the facilities annual Report of Required Monitoring and the Compliance Certification the next business date if the due date falls on a day the District is closed. The facility had originally proposed a maximum of 45 days after the end

of the reporting period as the due date for the report. The District is investigation if and how the tracking system can accommodate the facilities request. Chevron has requested to withdraw this comment from this project and re-apply for the modification at a future date. The modified condition is included as condition 45 of the proposed permit requirements.

Conditions 46 through 48 of the permit requirements have been included as conditions 46 through 48 of the proposed requirements.

Conditions 49 through 56 of the permit requirements have been updated to add District Rule 4320 as a rule reference. The modified conditions are included as conditions 49 through 56 of the proposed permit requirements.

Conditions 57 and 58 of the permit requirements have been designated as Federally Enforceable, and included as conditions 57 and 58 of the proposed permit requirements.

Condition 59 of the permit requirements is included as condition 59 of the proposed permit requirements.

Conditions 60, 61, and 62 have been modified to remove source testing methods. Source testing methods are incorporated into condition 73 of the proposed permit requirements. The modified conditions are listed as conditions 60, 61, and 62 of the proposed permit requirements.

Condition 64 of the permit requirements was modified to account for steam generators using wet flue gas scrubbers. The modified condition is included as condition 64 of the proposed permit requirements.

Conditions 65, 66, 67, and 69 of the permit requirements have been updated to add District Rule 4320 as a rule reference. The modified conditions are included as conditions 65 through 69 of the proposed permit requirements.

Condition 68 of the permit requirements is included as condition 68 of the proposed permit requirements.

Conditions 69 through 72 of the permit requirements have been included as conditions 69 through 72 of the proposed requirements.

Conditions 73 through 77 of the permit requirements have been removed and incorporated into one condition. The single condition is included as condition 73 of the draft permit requirements.

Conditions 78 through 81 of the permit requirements have been updated to add District Rule 4320 as a rule reference. The modified conditions are included as conditions 74 through 77 of the proposed permit requirements.

Conditions 82 through 112 of the permit requirements have been included as conditions 78 through 108 of the proposed requirements.

Condition 113 of the permit requirements have been designated as Federally Enforceable, and included as condition 109 of the proposed permit requirements.

Conditions 114 through 116 of the permit requirements have been included as conditions 110 through 112 of the proposed requirements.

Condition 117 of the permit requirements has been revised to be consistent with similar condition on other facilities within the same stationary source. This condition is included as condition 113 of the draft permit requirements.

Conditions 118 through 128 of the permit requirements have been included as conditions 114 through 124 of the proposed requirements.

Condition 129 of the permit requirements has been revised to update the rule reference and is included as condition 125 of the proposed permit requirements.

Conditions 130 through 138 of the permit unit requirements have been included as conditions 126 through 134 of the proposed permit requirements.

Condition 139 of the permit requirements has been revised to update reference to Rule 4401 Tables. This condition is included as condition 135 of the proposed permit requirements.

Condition 140 of the permit requirements has been included as condition 136 of the proposed permit requirements.

Condition 141 of the permit requirements has been revised to fix a typo and included as condition 137 of the proposed permit requirements.

Conditions 142 through 151 of the permit requirements have been included as conditions 139 through 148 of the proposed permit requirements.

Conditions 152 through 156 of the permit requirements have been revised to update the rule reference. These conditions are included as conditions 149 through 152 of the proposed permit requirements.

Condition 157 of the permit requirements has been included as condition 153 of the proposed permit requirements.

S-1141-549-12, -550-10, -551-9, -552-9, -553-9, -555-15, -556-16, -557-14, and -558-10:

During implementation of the ATCs issued with Certificate of Conformity (Attachment C) for the current PTOs the ATC requirements were inadvertently left off. These PTOs will be modified to add the appropriate permit requirements. The mapping for these permits will be between the ATCs (Attachment C) and the Draft PTOs from this project (Attachment A).

S-1154-549-12:

Conditions 1 through 3 of the ATC requirements have been removed. These conditions contain startup requirements that have been met and are no longer applicable.

Conditions 4 through 9 of the ATC requirements are included as condition 4 and the *Steam Generator Fuel Monitoring Conditions* starting with condition 59 of the proposed facility-wide requirements.

Conditions 10 through 14 of the ATC requirements have been included as conditions 1 through 5 of the proposed permit requirements.

Conditions 15 and 16 of the ATC requirements are included as conditions 49 and 50 of the proposed facility-wide requirements.

Condition 17 of the ATC requirements is included as condition 6 of the proposed permit requirements.

Condition 18 of the ATC requirements is included as condition 69 of the proposed facility-wide requirements.

Condition 19 of the ATC requirements refers to initial source testing. The facility has met this requirement therefore, it has been removed.

Conditions 20 through 31 of the ATC requirements have been included as condition 63; *Steam Generator Periodic Monitoring Conditions* starting with condition 65; and *Steam Generator Source Testing Conditions* starting with condition 74 of the proposed facility-wide requirements.

Condition 32 of the ATC requirements has been included as condition 7 of the proposed permit requirements.

Conditions 33 through 35 of the ATC requirements have been included as conditions 57, 58, 9, and 19 of the proposed facility-wide requirements.

Conditions 8 through 11 have been added to the proposed permit requirements. These conditions indicate that this unit is subject to the steam generator conditions 45 thru 77 of the facility wide requirements, S-1141-0.

S-1154-550-10:

Conditions 1 through 3 of the ATC requirements have been removed. These conditions contain startup requirements that have been met and are no longer applicable.

Conditions 4 through 11 of the ATC requirements have been included as conditions 41, 22, 47 and the *Steam Generator Fuel Monitoring Conditions* starting with condition 59 of the proposed facility-wide requirements.

Conditions 12 through 17 of the ATC requirements have been included as condition 1 through 6 of the proposed permit requirements.

Conditions 18 through 19 of the ATC requirements have been included as conditions 49 and 50 of the proposed facility-wide requirements.

Condition 20 of the ATC requirements is included as condition 7 of the proposed permit requirements.

Condition 21 of the ATC requirements has been included as condition 69 of the proposed facility-wide requirements.

Condition 22 of the ATC requirements refers to initial source testing. The facility has met this requirement therefore, it has been removed.

Conditions 23 through 34 of the ATC requirements have been included as condition 63; *Steam Generator Periodic Monitoring Conditions* starting with condition 65; and *Steam Generator Source Testing Conditions* starting with condition 74 of the proposed facility-wide requirements.

Condition 35 of the ATC requirements has been included as condition 8 of the proposed permit requirements.

Conditions 36 through 38 of the ATC requirements have been included as conditions 57, 28, 9 and 19 the proposed facility-wide requirements.

Conditions 9 through 12 have been added to the proposed permit requirements. These conditions indicate that this unit is subject to the steam generator conditions 45 thru 77 of the facility wide requirements, S-1141-0.

S-1154-551-10:

Conditions 1 through 3 of the ATC requirements have been removed. These conditions contain startup requirements that have been met and are no longer applicable.

Conditions 4 through 12 of the ATC requirements have been included as conditions 9, 19, and the *Steam Generator Fuel Monitoring Conditions* starting with condition 59 of proposed facility-wide requirements.

Conditions 13 through 15 of the ATC requirements have been included as condition 1 through 3 of the proposed permit requirements.

Condition 16 of the ATC requirements has been included as condition 72 of the proposed facility-wide requirements.

Conditions 17 and 18 of the ATC requirements have been included as condition 4 and 5 of the proposed permit requirements.

Condition 19 of the ATC requirements has been included as condition 51 of the proposed facility-wide requirements.

Conditions 20 through 24 of the ATC requirements have been included as condition 6 through 10 of the proposed permit requirements.

Conditions 25 and 26 of the ATC requirements have been included as conditions 49 and 50 of the proposed facility-wide requirements.

Conditions 27 and 28 of the ATC requirements have been included as condition 11 and 12 of the proposed permit requirements.

Conditions 29 and 30 of the ATC requirements have been included as conditions 65 and 69 of the proposed facility-wide requirements.

Condition 31 of the ATC requirements refers to initial source testing. The facility has met this requirement therefore, it has been removed.

Conditions 32 through 41 of the ATC requirements have been included as *Steam Generator Periodic Monitoring Conditions* starting with condition 65;

and *Steam Generator Source Testing Conditions* starting with condition 74 of the proposed facility-wide requirements.

Conditions 42 through 48 of the ATC requirements have been included as condition 13 through 19 of the proposed permit requirements.

Conditions 20 and 21 were added to the proposed permit requirements. These conditions are PSD requirements that were inadvertently left off the ATC.

Conditions 49 through 56 of the ATC requirements have been included as condition 22 through 29 of the proposed permit requirements.

Conditions 57 through 59 of the ATC requirements have been included as conditions 33, 34, 9 and 19 the proposed facility-wide requirements.

Conditions 30 through 33 have been added to the proposed permit requirements. These conditions indicate that this unit is subject to the steam generator conditions 45 thru 77 of the facility wide requirements, S-1141-0.

**S-1154-552-9:**

Conditions 1 through 3 of the ATC requirements have been removed. These conditions contain startup requirements that have been met and are no longer applicable.

Conditions 4 through 11 of the ATC requirements have been included as condition 9, 19, 47, 71, 72 and the *Steam Generator Fuel Monitoring Conditions* starting with condition 59 of the proposed facility-wide requirements.

Conditions 12 through 14 of the ATC requirements have been included as condition 1 through 3 of the proposed permit requirements.

Condition 15 of the ATC requirements has been included as condition 72 of the proposed facility-wide requirements.

Conditions 16 and 17 of the ATC requirements have been included as condition 4 and 5 of the proposed permit requirements.

Conditions 18 and 19 of the ATC requirements have been included as conditions 49 and 50 the proposed facility-wide requirements.

Conditions 20 through 26 of the ATC requirements have been included as condition 6 through 12 of the proposed permit requirements.

Condition 27 of the ATC requirements refers to initial source testing. The facility has met this requirement therefore, it has been removed.

Conditions 28 and 39 of the ATC requirements have been included as *Steam Generator Periodic Monitoring Conditions* starting with condition 65; and *Steam Generator Source Testing Conditions* starting with condition 74 of the proposed facility-wide requirements.

Conditions 40 and 46 of the ATC requirements have been included as condition 13 through 19 of the proposed permit requirements.

Conditions 20, 23 and 26 were added to the proposed permit requirements. These conditions are PSD requirements that were inadvertently left off the ATC.

Conditions 47 through 53 of the ATC requirements have been included as condition 21, 22, 24, 25, and 27 through 29 of the proposed permit requirements.

Conditions 54 through 56 of the ATC requirements have been included as conditions 57, 58, 9 and 19 of the proposed facility-wide requirements.

Conditions 30 through 33 have been added to the proposed permit requirements. These conditions indicate that this unit is subject to the steam generator conditions 45 thru 77 of the facility wide requirements, S-1141-0.

**S-1154-553-9:**

Conditions 1 through 3 of the ATC requirements have been removed. These conditions contain startup requirements that have been met and are no longer applicable.

Conditions 4 through 11 of the ATC requirements have been included as conditions, 9, 19, 47 and the *Steam Generator Fuel Monitoring Conditions* starting with condition 59 of the proposed facility-wide requirements.

Conditions 12 through 14 of the ATC requirements have been included as condition 1 through 3 of the proposed permit requirements.

Condition 15 of the ATC requirements has been included as condition 72 of the proposed facility-wide requirements.

Conditions 16 and 21 of the ATC requirements have been included as condition 4 and 9 of the proposed permit requirements.

Conditions 22 and 23 of the ATC requirements have been included as conditions 49 and 50 of the proposed facility-wide requirements.

Conditions 24 and 25 of the ATC requirements have been included as condition 10 and 11 of the proposed permit requirements.

Condition 26 of the ATC requirements refers to initial source testing. The facility has met this requirement therefore, it has been removed.

Conditions 27 through 38 of the ATC requirements have been included as *Steam Generator Periodic Monitoring Conditions* starting with condition 65; and *Steam Generator Source Testing Conditions* starting with condition 74 of the proposed facility-wide requirements.

Conditions 39 and 45 of the ATC requirements have been included as condition 12 through 18 of the proposed permit requirements.

Conditions 19, 22 and 25 were added to the proposed permit requirements. These conditions are PSD requirements that were inadvertently left off the ATC.

Conditions 46 through 52 of the ATC requirements have been included as condition 20, 21, 23, 24, 26, 27 and 28 of the proposed permit requirements.

Conditions 53 through 55 of the ATC requirements have been included as conditions 33, 34, 9, and 19 of the proposed facility-wide requirements.

Conditions 29 through 32 have been added to the proposed permit requirements. These conditions indicate that this unit is subject to the steam generator conditions 45 thru 77 of the facility wide requirements, S-1141-0.

**S-1154-555-15:**

Conditions 1 through 3 of the ATC requirements have been removed. These conditions contain startup requirements that have been met and are no longer applicable.

Conditions 4 through 8 of the ATC requirements have been included as condition 1 through 5 of the proposed permit requirements.

Conditions 9 through 13, and 15 of the ATC requirements have been included as condition 72 and the *Steam Generator Fuel Monitoring Conditions* starting with condition 59 of the proposed facility-wide requirements.

Conditions 14 and 16 through 22 of the ATC requirements have been included as condition 6 through 13 of the proposed permit requirements.

Conditions 23 and 25 of the ATC requirements have been included as conditions 49 and 50 of the proposed facility-wide requirements.

Condition 26 has been revised to remove NO<sub>x</sub> and CO from the source testing requirement. NO<sub>x</sub> and CO source testing requirements are included on the facility wide permit. PM<sub>10</sub> source testing requirements will remain on the proposed permit requirements as condition 14.

Condition 27 of the ATC requirements has been revised to remove startup requirements and included as condition 15 of the proposed permit requirements.

Condition 28 of the ATC requirements has been included as condition 16 of the proposed permit requirements.

Conditions 29 through 37 of the ATC requirements have been included as *Steam Generator Periodic Monitoring Conditions* starting with condition 65; and *Steam Generator Source Testing Conditions* starting with condition 74 of the proposed facility-wide requirements.

Condition 38 of the ATC requirements has been included as condition 17 of the proposed permit requirements.

Conditions 39 through 46 of the ATC requirements have been included as conditions 9, 19, 46, 47, 63 and the *Steam Generator Fuel Monitoring Conditions* starting with condition 59 of the proposed facility-wide requirements.

Conditions 47 and 48 of the ATC requirements have been included as condition 18 and 19 of the proposed permit requirements.

Conditions 49 through 51 of the ATC requirements have been included as conditions 57, 58, 9, and 19 of the proposed facility-wide requirements.

Conditions 20 through 23 have been added to the proposed permit requirements. These conditions indicate that this unit is subject to the steam generator conditions 45 thru 77 of the facility wide requirements, S-1141-0.

S-1154-556-16:

Conditions 2 through 3 of the ATC requirements have been removed. These conditions contain startup requirements that have been met and are no longer applicable.

Condition 4 of the ATC requirements has been included as conditions 47 of the proposed facility-wide requirements.

Condition 5 of the ATC requirements is included as condition 1 of the proposed permit requirements.

Conditions 6 through 9 of the ATC requirements apply to the scrubber shared by this unit, S-1141-555, and -557. Per facility request the requirements for the scrubber are included on the low order permit. Therefore conditions 6 through 9 of the ATC requirements have been included as condition 2 through 5 of the proposed permit requirements for unit S-1141-555-15.

Conditions 10 through 14 of the ATC requirements have been included as the *Steam Generator Fuel Monitoring Conditions* starting with condition 59 of the proposed facility-wide requirements.

Condition 15 of the ATC requirements apply to the scrubber shared by this unit, S-1141-555, and -557. Per facility request the requirements for the scrubber are included on the low order permit. Therefore condition 15 of the ATC requirements has been included as condition 6 of the proposed permit requirements for unit S-1141-555-15.

Conditions 16 through 24 of the ATC requirements have been included as condition 2 through 10 of the proposed permit requirements.

Conditions 25 and 26 of the ATC requirements have been included as conditions 49 and 50 the proposed facility-wide requirements.

Condition 27 of the ATC requirements has been removed. This condition is a duplicate of condition 6 of the proposed permit requirements.

Condition 28 has been revised to remove NO<sub>x</sub> and CO from the source testing requirement. NO<sub>x</sub> and CO source testing requirements are included

on the facility wide permit. PM<sub>10</sub> source testing requirements will remain on the proposed permit requirements as condition 11.

Condition 29 and 30 of the ATC requirements apply to the scrubber shared by this unit, S-1141-555, and -557. Per facility request the requirements for the scrubber are included on the low order permit. Therefore conditions 29 and 30 of the ATC requirements have been included as conditions 16 and 19 of the proposed permit requirements for unit S-1141-555-15.

Conditions 31 through 41 of the ATC requirements have been included as *Steam Generator Periodic Monitoring Conditions* starting with condition 65; and *Steam Generator Source Testing Conditions* starting with condition 74 of the proposed facility-wide requirements.

Condition 42 of the ATC requirements has been included as conditions 12 of the proposed permit requirements.

Condition 43 of the ATC requirements apply to the scrubber shared by this unit, S-1141-555, and -557. Per facility request the requirements for the scrubber are included on the low order permit. Therefore condition 43 of the ATC requirements has been included as condition 19 of the proposed permit requirements for unit S-1141-555-15.

Conditions 44 through 46 of the ATC requirements have been included as conditions 57, 58, 9, and 19 the proposed facility-wide requirements.

Conditions 13 through 16 have been added to the proposed permit requirements. These conditions indicate that this unit is subject to the steam generator conditions 45 thru 77 of the facility wide requirements, S-1141-0.

**S-1154-557-14:**

Conditions 1 through 3 of the ATC requirements have been removed. These conditions contain startup requirements that have been met and are no longer applicable.

Conditions 4 and 5 of the ATC requirements have been included as conditions 47 and 48 of the proposed facility-wide requirements.

Condition 6 of the ATC requirements is included as condition 1 of the proposed permit requirements.

Conditions 7 through 10 of the ATC requirements apply to the scrubber shared by this unit, S-1141-555, and -556. Per facility request the

requirements for the scrubber are included on the low order permit. Therefore conditions 7 through 10 of the ATC requirements have been included as condition 2 through 5 of the proposed permit requirements for unit S-1141-555-15.

Conditions 11 through 15 of the ATC requirements have been included as condition 4 and the *Steam Generator Fuel Monitoring Conditions* starting with condition 59 of the proposed facility-wide requirements.

Condition 16 of the ATC requirements apply to the scrubber shared by this unit, S-1141-555, and -556. Per facility request the requirements for the scrubber are included on the low order permit. Therefore condition 16 of the ATC requirements has been included as condition 6 of the proposed permit requirements for unit S-1141-555-15.

Conditions 17 through 25 of the ATC requirements have been included as condition 2 through 10 of the proposed permit requirements.

Conditions 26 and 27 of the ATC requirements have been included as conditions 49 and 50 of the proposed facility-wide requirements.

Condition 28 has been revised to remove NO<sub>x</sub> and CO from the source testing requirement. NO<sub>x</sub> and CO source testing requirements are included on the facility wide permit. PM<sub>10</sub> source testing requirements will remain on the proposed permit requirements as condition 11.

Conditions 28 through 42 of the ATC requirements have been included as *Steam Generator Periodic Monitoring Conditions* starting with condition 65; and *Steam Generator Source Testing Conditions* starting with condition 74 of the proposed facility-wide requirements.

Condition 43 of the ATC requirements has been included as conditions 12 of the proposed permit requirements.

Condition 44 of the ATC requirements apply to the scrubber shared by this unit, S-1141-555, and -557. Per facility request the requirements for the scrubber are included on the low order permit. Therefore condition 44 of the ATC requirements has been included as condition 19 of the proposed permit requirements for unit S-1141-555-15.

Conditions 45 through 47 of the ATC requirements have been included as conditions 57, 58, 9 and 19 the proposed facility-wide requirements.

Conditions 13 through 17 have been added to the proposed permit requirements. These conditions indicate that this unit is subject to the steam generator conditions 45 thru 77 of the facility wide requirements, S-1141-0.

S-1154-558-10:

Conditions 1 through 3 of the ATC requirements have been removed. These conditions contain startup requirements that have been met and are no longer applicable.

Conditions 4 and 14 of the ATC requirements have been included as conditions 9, 19, 46, 47, 63, 71 and the *Steam Generator Fuel Monitoring Conditions* starting with condition 59 of the proposed facility-wide requirements.

Conditions 15 through 17 of the ATC requirements have been included as condition 1 through 3 of the proposed permit requirements.

Condition 18 of the ATC requirements have been included as condition 72 the proposed facility-wide requirements.

Conditions 19 and 20 of the ATC requirements have been included as conditions 4 and 5 of the proposed permit requirements.

Condition 21 of the ATC requirements have been included as condition 50 the proposed facility-wide requirements.

Conditions 22 through 26 of the ATC requirements have been included as condition 6 through 10 of the proposed permit requirements.

Conditions 27 through 30 of the ATC requirements have been included as conditions 49, 50, 65 and 69 of the proposed facility-wide requirements.

Condition 31 of the ATC requirements refers to initial source testing. The facility has met this requirement therefore, it has been removed.

Conditions 32 through 41 of the ATC requirements have been included as *Steam Generator Periodic Monitoring Conditions* starting with condition 65; and *Steam Generator Source Testing Conditions* starting with condition 74 of the proposed facility-wide requirements.

Condition 42 of the ATC requirements has been included as condition 11 of the proposed permit requirements.

Conditions 43 through 45 of the ATC requirements have been included as conditions 57, 58, 9 and 19 of the proposed facility-wide requirements.

Conditions 12 through 15 have been added to the proposed permit requirements. These conditions indicate that this unit is subject to the steam generator conditions 45 thru 77 of the facility wide requirements, S-1141-0.

## **VII. COMPLIANCE**

In accordance with Rule 2520, 3.20, these modifications:

1. Do not violate requirements of any applicable federally enforceable local or federal requirement;
2. Do not relax monitoring, reporting, or recordkeeping requirements in the permit and are not significant changes in existing monitoring permit terms or conditions;
3. Do not require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis;
4. Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include:
  - a. A federally enforceable emission cap assumed to avoid classification as a modification under any provisions of Title I of the Federal Clean Air Act; and
  - b. An alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Federal Clean Air Act; and
5. Are not Title I modifications as defined in District Rule 2520 or modifications as defined in section 111 or 112 of the Federal Clean Air Act; and
6. Do not seek to consolidate overlapping applicable requirements.

In accordance with Rule 2520, the application meets the procedural requirements of section 11.4 by including;

1. A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs;
2. The source's suggested draft permit; and

Chevron USA Inc  
Facility # S-1141  
Project # S-1130117

3. Certification by a responsible official that the proposed modification meets the criteria for use of minor permit modification procedures and a request that such procedures be used.

## **VIII. ATTACHMENTS**

- A. Proposed Modified Title V Operating Permit No. S-1141-0-3, -549-12, -550-10, -551-9, -552-9, -553-9, -555-15, -556-16, -557-14, and -558-10
- B. Previous Title V Operating Permit No.'s S-1141-0-2, -549-11, -550-9, -551-8, -552-8, -553-8, -555-12, -556-13, -557-11, and -558-9
- C. Authorities to Construct S-1141-549-11, -550-9, -551-8, -552-8, -553-8, -555-12, -556-13, -557-11, and -558-9
- D. Facility Comment/District Response

# ATTACHMENT A

Proposed Modified Title V Operating Permit No.  
S-1141-0-3, -549-12, -550-10, -551-9, -552-9,  
-553-9, -555-15, -556-16, -557-14, and -558-10

# San Joaquin Valley Air Pollution Control District

FACILITY: S-1141-0-3

EXPIRATION DATE: 02/29/2016

## FACILITY-WIDE REQUIREMENTS

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

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: CHEVRON USA INC  
Location: HEAVY OIL WESTERN STATIONARY SOURCE, CA  
8-1141-0-3; Jul 30 2013 8:17AM - GONZALEZ

9. The operator shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, or report. Support information includes copies of all reports required by the permit and, for continuous monitoring instrumentation, all calibration and maintenance records and all original strip-chart recordings. [District Rules 2520, 9.4.2; 4624; 4702, 6.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit
10. {4371} The operator shall submit reports of any required monitoring at least every six months unless a different frequency is required by an applicable requirement. All instances of deviations from permit requirements must be clearly identified in such reports. [District Rule 2520, 9.5.1] Federally Enforceable Through Title V Permit
11. {4372} Deviations from permit conditions must be promptly reported, including deviations attributable to upset conditions, as defined in the permit. For the purpose of this condition, promptly means as soon as reasonably possible, but no later than 10 days after detection. The report shall include the probable cause of such deviations, and any corrective actions or preventive measures taken. All required reports must be certified by a responsible official consistent with section 10.0 of District Rule 2520 (6/21/01). [District Rules 2520, 9.5.2 and 1100, 7.0] Federally Enforceable Through Title V Permit
12. {4373} If for any reason a permit requirement or condition is being challenged for its constitutionality or validity by a court of competent jurisdiction, the outcome of such challenge shall not affect or invalidate the remainder of the conditions or requirements in that permit. [District Rule 2520, 9.7] Federally Enforceable Through Title V Permit
13. {4374} It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. [District Rule 2520, 9.8.2] Federally Enforceable Through Title V Permit
14. {4375} The permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. [District Rule 2520, 9.8.3] Federally Enforceable Through Title V Permit
15. {4376} The permit does not convey any property rights of any sort, or any exclusive privilege. [District Rule 2520, 9.8.4] Federally Enforceable Through Title V Permit
16. {4377} The Permittee shall furnish to the District, within a reasonable time, any information that the District may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the District copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to EPA along with a claim of confidentiality. [District Rule 2520, 9.8.5] Federally Enforceable Through Title V Permit
17. {4378} The permittee shall pay annual permit fees and other applicable fees as prescribed in Regulation III of the District Rules and Regulations. [District Rule 2520, 9.9] Federally Enforceable Through Title V Permit
18. {4379} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to enter the permittee's premises where a permitted source is located or emissions related activity is conducted, or where records must be kept under condition of the permit. [District Rule 2520, 9.13.2.1] Federally Enforceable Through Title V Permit
19. {4380} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit. [District Rule 2520, 9.13.2.2] Federally Enforceable Through Title V Permit
20. {4381} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to inspect at reasonable times any facilities, equipment, practices, or operations regulated or required under the permit. [District Rule 2520, 9.13.2.3] Federally Enforceable Through Title V Permit
21. {4382} Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. [District Rule 2520, 9.13.2.4] Federally Enforceable Through Title V Permit

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

22. No air contaminants shall be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is as dark or darker than Ringelmann #1 or equivalent to 20% opacity and greater, unless specifically exempted by District Rule 4101 (02/17/05), by using EPA Method 9. If the equipment or operation is subject to a more stringent visible emission standard as prescribed in a permit condition, the more stringent visible emission limit shall supersede this condition. [District Rule 4101, and County Rules 401 (in all eight counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit
23. {4384} No person shall manufacture, blend, repackage, supply, sell, solicit or apply any architectural coating with a VOC content in excess of the corresponding limit specified in Table of Standards 1 effective until 12/30/10 or Table of Standards 2 effective on and after 1/1/11 of District Rule 4601 (12/17/09) for use or sale within the District. [District Rule 4601, 5.1] Federally Enforceable Through Title V Permit
24. {4385} All VOC-containing materials subject to Rule 4601 (12/17/09) shall be stored in closed containers when not in use. [District Rule 4601, 5.4] Federally Enforceable Through Title V Permit
25. {4386} The permittee shall comply with all the Labeling and Test Methods requirements outlined in Rule 4601 sections 6.1 and 6.3 (12/17/09). [District Rule 4601, 6.1 and 6.3] Federally Enforceable Through Title V Permit
26. {4387} With each report or document submitted under a permit requirement or a request for information by the District or EPA, the permittee shall include a certification of truth, accuracy, and completeness by a responsible official. [District Rule 2520, 9.13.1 and 10.0] Federally Enforceable Through Title V Permit
27. {4388} If the permittee performs maintenance on, or services, repairs, or disposes of appliances, the permittee shall comply with the standards for Recycling and Emissions Reduction pursuant to 40 CFR Part 82, Subpart F. [40 CFR 82 Subpart F] Federally Enforceable Through Title V Permit
28. {4389} If the permittee performs service on motor vehicles when this service involves the ozone-depleting refrigerant in the motor vehicle air conditioner (MVAC), the permittee shall comply with the standards for Servicing of Motor Vehicle Air Conditioners pursuant to all the applicable requirements as specified in 40 CFR Part 82, Subpart B. [40 CFR Part 82, Subpart B] Federally Enforceable Through Title V Permit
29. {4390} Disturbances of soil related to any construction, demolition, excavation, extraction, or other earthmoving activities shall comply with the requirements for fugitive dust control in District Rule 8021 unless specifically exempted under Section 4.0 of Rule 8021 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8021 and 8011] Federally Enforceable Through Title V Permit
30. {4391} Outdoor handling, storage and transport of any bulk material which emits dust shall comply with the requirements of District Rule 8031, unless specifically exempted under Section 4.0 of Rule 8031 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8031 and 8011] Federally Enforceable Through Title V Permit
31. {4392} An owner/operator shall prevent or cleanup any carryout or trackout in accordance with the requirements of District Rule 8041 Section 5.0, unless specifically exempted under Section 4.0 of Rule 8041 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8041 and 8011] Federally Enforceable Through Title V Permit
32. {4393} Whenever open areas are disturbed, or vehicles are used in open areas, the facility shall comply with the requirements of Section 5.0 of District Rule 8051, unless specifically exempted under Section 4.0 of Rule 8051 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8051 and 8011] Federally Enforceable Through Title V Permit
33. {4394} Any paved road or unpaved road shall comply with the requirements of District Rule 8061 unless specifically exempted under Section 4.0 of Rule 8061 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8061 and Rule 8011] Federally Enforceable Through Title V Permit

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

34. {4395} Any unpaved vehicle/equipment area that anticipates more than 50 Average annual daily Trips (AADT) shall comply with the requirements of Section 5.1.1 of District Rule 8071. Any unpaved vehicle/equipment area that anticipates more than 150 vehicle trips per day (VDT) shall comply with the requirements of Section 5.1.2 of District Rule 8071. On each day that 25 or more VDT with 3 or more axles will occur on an unpaved vehicle/equipment traffic area, the owner/operator shall comply with the requirements of Section 5.1.3 of District Rule 8071. On each day when a special event will result in 1,000 or more vehicles that will travel/park on an unpaved area, the owner/operator shall comply with the requirements of Section 5.1.4 of District Rule 8071. All sources shall comply with the requirements of Section 5.0 of District Rule 8071 unless specifically exempted under Section 4.0 of Rule 8071 (9/16/2004) or Rule 8011 (8/19/2004). [District Rule 8071 and Rule 8011] Federally Enforceable Through Title V Permit
35. {4396} Any owner or operator of a demolition or renovation activity, as defined in 40 CFR 61.141, shall comply with the applicable inspection, notification, removal, and disposal procedures for asbestos containing materials as specified in 40 CFR 61.145 (Standard for Demolition and Renovation). [40 CFR 61 Subpart M] Federally Enforceable Through Title V Permit
36. {4397} The permittee shall submit certifications of compliance with the terms and standards contained in Title V permits, including emission limits, standards and work practices, to the District and the EPA annually (or more frequently as specified in an applicable requirement or as specified by the District). The certification shall include the identification of each permit term or condition, the compliance status, whether compliance was continuous or intermittent, the methods used for determining the compliance status, and any other facts required by the District to determine the compliance status of the source. [District Rule 2520, 9.16] Federally Enforceable Through Title V Permit
37. {4398} The permittee shall submit an application for Title V permit renewal to the District at least six months, but not greater than 18 months, prior to the permit expiration date. [District Rule 2520, 5.2] Federally Enforceable Through Title V Permit
38. {4399} When a term is not defined in a Title V permit condition, the definition in the rule cited as the origin and authority for the condition in a Title V permits shall apply. [District Rule 2520, 9.1.1] Federally Enforceable Through Title V Permit
39. {4400} Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following outdated SIP requirements: Rule 401 (Madera, Fresno, Kern, Kings, San Joaquin, Stanislaus, Tulare and Merced), Rule 110 (Fresno, Stanislaus, San Joaquin), Rule 109 (Merced), Rule 113 (Madera), Rule 111 (Kern, Tulare, Kings), and Rule 202 (Fresno, Kern, Tulare, Kings, Madera, Stanislaus, Merced, San Joaquin). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
40. {4401} Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rules 1100, sections 6.1 and 7.0 (12/17/92); 2010, sections 3.0 and 4.0 (12/17/92); 2031 (12/17/92); 2040 (12/17/92); 2070, section 7.0 (12/17/92); 2080 (12/17/92); 4101 (2/17/05); 4601 (12/17/09); 8021 (8/19/2004); 8031 (8/19/2004); 8041 (8/19/2004); 8051 (8/19/2004); 8061 (8/19/2004); and 8071 (9/16/2004). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
41. {118} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
42. All permits for facilities S-1128, S-1129, S-1141, S-1549, and S-2592 are included in the Chevron USA Inc. Heavy Oil Western stationary source. [District NSR Rule] Federally Enforceable Through Title V Permit
43. Facility shall comply with all applicable requirements regarding preparation and implementation of a risk management plan (RMP) by August 31, 1999, and shall abide by all applicable sections of 40 CFR Part 68. [40 CFR 68] Federally Enforceable Through Title V Permit
44. The following units are subject to the facility's SLC plan: S-1141-392, S-1141-394, S-1141-396, S-1141-402, S-1141-516, S-1141-517, S-1141-529. [District NSR Rule] Federally Enforceable Through Title V Permit

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

45. The reporting periods of the Report of Required monitoring and Compliance Certification Report begin November 30 of every year, unless alternative dates are approved by the District Compliance Division. These reports are due on the 30 days after the end of the reporting period. If the due date falls on a day that the SJVAPCD is closed, they will be due on the next business day. [District Rule 2520] Federally Enforceable Through Title V Permit
46. Steam Generator General Condition: Nitrogen oxide (NO<sub>x</sub>) emissions shall not exceed 140 lb/hr, calculated as NO<sub>2</sub>. [District Rule 4301, 5.2.2] Federally Enforceable Through Title V Permit
47. Steam Generator General Condition: Particulate matter emissions shall not exceed 0.1 grain/dscf, 0.1 grain/dscf calculated to 12% CO<sub>2</sub>, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
48. Steam Generator General Condition: Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO<sub>2</sub>. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rule 2520, 9.3.2 and District Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit
49. Steam Generator General Condition: Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rules 4306, 3.25 and 3.22; and 4320, 3.25 and 3.29] Federally Enforceable Through Title V Permit
50. Steam Generator General Condition: Duration of start-up or shutdown shall not exceed two hours each per occurrence. [District Rules 4305, 5.5; 4306, 5.3; and 4320, 5.6] Federally Enforceable Through Title V Permit
51. Steam Generator General Condition: Permittee shall maintain records of duration of each start-up and shutdown. [District Rules 4305, 6.1; 4306, 6.1.4; and 4320, 6.1.4] Federally Enforceable Through Title V Permit
52. Steam Generator General Condition: Annual tests results submitted to the District from unit(s) representing a group of units may be used to demonstrate compliance with NO<sub>x</sub> or CO limits of this permit, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NO<sub>x</sub> or CO emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. [District Rules 2520, 9.3.2; 4305, 6.3.2; 4306, 6.3.2; and 4320, 6.3.2] Federally Enforceable Through Title V Permit
53. Steam Generator General Condition: The following conditions must be met for representative unit(s) to be used to test for NO<sub>x</sub> or CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2; 4305, 6.3.2; and 4320 6.3.2] Federally Enforceable Through Title V Permit
54. Steam Generator General Condition: All units in a group for which representative units are source for NO<sub>x</sub> or CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). These tune-up procedures shall be completed according to District Rule 4304 (Adopted October 19, 1995) and tune-up test results shall show comparable results for each unit in the group. Records shall be maintained for each unit of the group including all preventative and corrective maintenance work done. [District Rules 2520, 9.3.2; 4305, 6.3.2; 4306, 6.3.2 and 4320, 6.3.2] Federally Enforceable Through Title V Permit
55. Steam Generator General Condition: All units in a group for which representative units are source tested for NO<sub>x</sub> or CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g. from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2; 4305, 6.3.2; 4306, 6.3.2; and 4320, 6.3.2] Federally Enforceable Through Title V Permit

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

56. Steam Generator General Condition: The number of representative units source tested for NO<sub>x</sub> emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rules 2520, 9.3.2; 4305, 6.3.2; 4306, 6.3.2 and 4320, 6.3.2] Federally Enforceable Through Title V Permit
57. Steam Generator General Condition: 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] Federally Enforceable Through Title V Permit
58. Steam Generator General Condition: 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] Federally Enforceable Through Title V Permit
59. Steam Generator Fuel Monitoring Condition: When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
60. Steam Generator Fuel Monitoring Condition: When complying with SO<sub>x</sub> emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using test methods specified in "Steam Generator - Source Testing Conditions". Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
61. Steam Generator Fuel Monitoring Condition: If the unit is fired on noncertified gaseous fuel and compliance with SO<sub>x</sub> emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using "Steam Generator - Source Testing Conditions". [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
62. Steam Generator Fuel Monitoring Condition: If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by methods specified in "Steam Generator - Source Testing Conditions". [District Rules 2520, 9.3.2; 4305, 6.2.1 and 4320, 6.2.1] Federally Enforceable Through Title V Permit
63. Steam Generator Fuel Monitoring Condition: Copies of all fuel invoices, gas purchase contract, supplier certifications, and test results used to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel. [District Rule 2520, 9.4.2 and 40 CFR 60.48c(g)] Federally Enforceable Through Title V Permit
64. Steam Generator Fuel Monitoring Condition: Compliance with SO<sub>x</sub> emission limits shall be demonstrated by fuel gas sulfur contents analysis at the time of NO<sub>x</sub> testing, except for units fired on natural gas purchased from a PUC regulated utility or operated with flue gas scrubber. [District Rule 1081] Federally Enforceable Through Title V Permit
65. Steam Generator Source Testing Condition: All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5.2; 4306, 5.5.2; and 4320, 5.8.2] Federally Enforceable Through Title V Permit
66. Steam Generator Source Testing Condition: 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, 5.8.1] Federally Enforceable Through Title V Permit

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

67. Steam Generator Source Testing Condition: For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5; 4306, 5.5.5; and 4320, 5.8.5] Federally Enforceable Through Title V Permit
68. Steam Generator Source Testing Condition: 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
69. Steam Generator Source Testing Condition: Source testing to measure NO<sub>x</sub> and CO emissions from this unit while fired on natural gas 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, 6.3.1] Federally Enforceable Through Title V Permit
70. Steam Generator Source Testing Condition: Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit
71. Steam Generator Source Testing Condition: 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
72. Steam Generator Source Testing Condition: Exhaust gas stack shall be equipped with adequate provisions facilitating the collection of gas samples consistent with EPA Test Methods or as approved by APCO. [District Rules 1081, 2201] Federally Enforceable Through Title V Permit
73. Steam Generator Source Testing Condition: 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 ARB Method 100; SO<sub>x</sub> (lb/MMBtu) - EPA Method 6, 6C, 8 or ARB Method 100; Stack Gas Oxygen - EPA Method 3 or 3A or ARB Method 100; Stack Gas Velocity (ft/min) - EPA Method 2; Stack Gas Moisture Content (%) - EPA Method 4; Fuel Gas Sulfur Content - EPA Method 11 or EPA Method 15 or ASTM D6288, D1072, D3031, D4084, D3246, or grab sample analysis by double GC; Fuel Gas hhv - ASTM D1826 or D1945 in conjunction with ASTM D3588; PM10 (lb/scf) - EPA Methods 5 (front half), 201A, and/or 202, CARB Method 5, or any combination of these PM10 methods. [District Rules 4305, 6.2; 4306, 6.2 and 4320, 6.2.1] Federally Enforceable Through Title V Permit
74. Steam Generator Periodic Monitoring Condition: 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, 5.4.2; 4306, 5.4.2; and 4320, 5.7.2] Federally Enforceable Through Title V Permit
75. Steam Generator Periodic Monitoring Condition: 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, 5.4.2; 4306, 5.4.2; and 4320, 5.7.2] Federally Enforceable Through Title V Permit

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76. Steam Generator Periodic Monitoring Condition: 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, 5.4.2 and 5.5.4; 4306, 5.4.2 and 5.5.4; and 4320, 5.7.2 and 5.8.4] Federally Enforceable Through Title V Permit
77. Steam Generator Periodic Monitoring Condition: 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, 5.4.2; 4306, 5.4.2; and 4320, 5.7.2] Federally Enforceable Through Title V Permit
78. Heavy Oil Tank Inspection and Maintenance: Flanges shall be monitored with portable hydrocarbon detection instrument along the entire circumference of the flange-gasket interface. Threaded connections, tubing fittings, and other types of non-permanent joints shall be monitored along the entire circumference of joint interface. [District NSR Rule] Federally Enforceable Through Title V Permit
79. Heavy Oil Tank Inspection and Maintenance: All other components such as diaphragms, dump arms, instruments, meters shall be monitored at all points of possible emissions. [District NSR Rule] Federally Enforceable Through Title V Permit
80. Heavy Oil Tank Inspection and Maintenance: In addition to the requirements above, pressure relief devices shall be inspected and monitored for leaks within 3 days of any known, likely, or suspected venting of such devices. [District NSR Rule] Federally Enforceable Through Title V Permit
81. Heavy Oil Tank Inspection and Maintenance: Portable hydrocarbon detection instrument shall be operated and calibrated in accordance with recommendations in CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities (Feb 1999). [District NSR Rule] Federally Enforceable Through Title V Permit
82. Heavy Oil Tank Inspection and Maintenance: Valves shall be monitored with portable hydrocarbon detection instrument where the stem comes through the packing gland, and at any attached or connected body flange(s), bonnet flange(s), or plug(s). [District NSR Rule] Federally Enforceable Through Title V Permit
83. Heavy Oil Tank Inspection and Maintenance: All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2050, 9.3.2] Federally Enforceable Through Title V Permit
84. Heavy Oil Tank Inspection and Maintenance: Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
85. Heavy Oil Tank Inspection and Maintenance: A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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86. Heavy Oil Tank Inspection and Maintenance: An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
87. Heavy Oil Tank Inspection and Maintenance: Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 18 or 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 18 or 25 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
88. Heavy Oil Tank Inspection and Maintenance: Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
89. Heavy Oil Tank Inspection and Maintenance: If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
90. Heavy Oil Tank Inspection and Maintenance: A leak free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit
91. Heavy Oil Tank Cleaning Condition: Operator shall notify the District in writing at least 72 hours prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following information: (1) The PTO number and physical location of the tank being degassed, (2) The date and time that tank degassing and cleaning activities will begin, (3) The degassing method, as allowed in this permit, to be used, and (4) The method to be used to clean the tank, including any solvents to be used. [District Rule 2080] Federally Enforceable Through Title V Permit
92. Heavy Oil Tank Cleaning Condition: To facilitate connection to an external APCO-approved vapor recovery system a suitable tank fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 2080] Federally Enforceable Through Title V Permit
93. Heavy Oil Tank Cleaning Condition: During degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system that is leak-free and achieves at least 95% control of inlet VOC emissions. [District Rule 2080] Federally Enforceable Through Title V Permit
94. Heavy Oil Tank Cleaning Condition: Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
95. Heavy Oil Tank Cleaning Condition: When storing organic liquid of TVP less than 0.5 psia, prior to returning the tank to normal operation, the tank vapor control system shall either be reactivated and the pressure/relief valves closed, or the tank shall be filled to the maximum possible level with water, inert gas, or a liquid with a TVP less than 0.5 psia and the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall then be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

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96. Heavy Oil Tank Cleaning Condition: Prior to opening the tank to allow tank cleaning, one of the following degassing procedures must be followed: 1) Exhaust VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less; or 2) Displace VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia; or 3) Displace VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight; 4) For free-water knockout tanks, the operator may degas the tank vapor space by restricting the outflow of water and floating off the oilpad, such that at least 90 percent of the tank volume is displaced; or 5) operate the vapor recovery system for at least 24 hours after all the liquid in the tank has been drained. [District Rule 2080] Federally Enforceable Through Title V Permit
97. Heavy Oil Tank Cleaning Condition: Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit
98. Heavy Oil Tank Cleaning Condition: Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit
99. Heavy Oil Tank Cleaning Condition: Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
100. Heavy Oil Tank Cleaning Condition: This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit
101. Heavy Oil Tank Cleaning Condition: While performing tank cleaning activities, operators may use the following cleaning agents: clean (produced) water, diesel, solvents with an initial boiling point of greater than 302°F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams per liter VOC content or less. The tank sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit
102. Heavy Oil Tank Cleaning Condition: Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
103. Heavy Oil Tank Testing Condition: Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
104. Heavy Oil Tank Testing Condition: Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or representative tank as provided in District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623, 6.2.1.1] Federally Enforceable Through Title V Permit
105. Heavy Oil Tank Testing Condition: Operator shall conduct quarterly sampling from the tank vapor recovery system to qualify for exemption from fugitive component counts for components handling fluids with less than 10% VOC by weight. If fluids sampled are less than 10% VOC by weight for 8 consecutive quarterly samplings, sampling frequency shall only be required annually. Such sampling is deemed representative of all components downstream of the equipment served by the vapor control system. [District NSR Rule] Federally Enforceable Through Title V Permit

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106. Heavy Oil Tank Testing Condition: VOC content of vapor shall be determined by ASTM D1945, ASTM D1946, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit
107. Heavy Oil Tank Testing Condition: The API gravity of crude oil or petroleum distillate shall be determined by using ASTM method D 287-92 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method)". Sampling for API gravity shall be performed in accordance with ASTM Method D-4057-95 "Standard Practices for manual Sampling of Petroleum and Petroleum Products". [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
108. Heavy Oil Tank Testing Condition: For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory "Test Method for Vapor Pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
109. Heavy Oil Tank Testing Condition: Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1 through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623, 6.2.1.1] Federally Enforceable Through Title V Permit
110. Heavy Oil Tank Testing Condition: The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
111. Heavy Oil Tank Testing Condition: The permittee shall keep accurate records of vapor VOC concentration, API gravity, true vapor pressure, storage temperature and types of liquids stored. [District NSR Rule and District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
112. Casing Collection System Conditions: The crude oil production from wells associated with this permit unit shall not lie within 1000 feet of an air injection well used for in-situ combustion. [District Rule 4401, 2.0, 3.4, and 3.5] Federally Enforceable Through Title V Permit
113. Casing Collection System Condition: An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with either of the following requirements: 1) The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system. The well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere, or 2) The steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system. [District Rule 4401, 5.1] Federally Enforceable Through Title V Permit
114. Casing Collection System Conditions: Permittee shall install and maintain an APCO-approved VOC collection and control system that is not open to the atmosphere and that is composed of hard-piping, ductwork connections and, if necessary, flow inducing devices that transport gas or vapor from a piece or pieces of equipment to an APCO-approved control device that has a VOC destruction or removal efficiency of at least 99%, or that transports gases or vapors back to a process system. [District Rules 2201 and 4401, 5.1] Federally Enforceable Through Title V Permit
115. Casing Collection System Conditions: During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401, 5.0. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit
116. Casing Collection System Conditions: The permittee shall not use any components that leak in excess of the applicable leak standards as specified in this permit. Components that have been found leaking in excess of the applicable leak standards of this rule may be used provided such leaking components have been identified with a tag for repair, are repaired, or are awaiting re-inspection after being repaired, within the applicable time period specified in this permit. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit
117. Casing Collection System Conditions: Permittee shall maintain a copy of the latest APCO-approved Operator Management Plan (OMP) at the facility and make it available to the APCO, ARB, and US EPA upon request. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

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118. Casing Collection System Conditions: By January 30 of each year, permittee shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved OMP. [District Rule 4401, 6.7] Federally Enforceable Through Title V Permit
119. Casing Collection System Conditions: In accordance with the approved OMP, permittee shall meet all applicable operating, leak standards, inspection and re-inspection, leak repair, record keeping, and notification requirements of Rule 4401. [District Rule 4401, 6.6] Federally Enforceable Through Title V Permit
120. Casing Collection System Conditions: A gas leak is defined as the detection of a concentration of total organic compounds, above background (measured in accordance with EPA Method 21) that exceeds the following values: 1) A major gas leak is a detection of greater than 10,000 ppmv as methane; and 2) A minor gas leak is a detection of 400 to 10,000 ppmv as methane for pressure relief devices (PRDs) and 2,000 to 10,000 for components other than PRDs. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit
121. Casing Collection System Conditions: A liquid leak is defined as the dripping of VOC-containing liquid. A major liquid leak is a visible mist or a continuous flow of liquid that is not seal lubricant. A minor liquid leak is a liquid leak that is not a major liquid leak and drips liquid at a rate of more than three drops per minute, except for seal lubricant. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit
122. Casing Collection System Conditions: During District compliance inspection, the following conditions shall be used to determination of a violation: 1) Existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations requiring process fluid flow through the open-ended lines. Attended operations include draining or degassing operations, connection of temporary process equipment, sampling of process streams, emergency venting, and other normal operational needs, provided such operations are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere; 2) Existence of a component with a major liquid leak; 3) Existence of a component with a gas leak greater than 50,000 ppmv; or 4) Existence of a component leak consisting of a minor liquid or gas leak, or a gas leak greater than 10,000 ppmv up to 50,000 ppmv, in excess of the allowable number of leaks specified in Table 2 of Rule 4401. [District Rule 4401, 5.2.2] Federally Enforceable Through Title V Permit
123. Casing Collection System Conditions: Permittee shall keep all hatches closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.3.2] Federally Enforceable Through Title V Permit
124. Casing Collection System Conditions: Except for pipes and unsafe-to-monitor components, permittee shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of Rule 4401 shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4.1 & 5.4.2] Federally Enforceable Through Title V Permit
125. Casing Collection System Conditions: Permittee shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.4.5] Federally Enforceable Through Title V Permit
126. Casing Collection System Conditions: Permittee shall inspect audio-visually (by hearing and by sight) for leaks all accessible operating pumps, compressors, and pressure relief devices (PRDs) in service at least once each calendar week. [District Rule 4401, 5.4.3.1] Federally Enforceable Through Title V Permit
127. Casing Collection System Conditions: Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of Rule 4401 shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4.3.2] Federally Enforceable Through Title V Permit
128. Casing Collection System Conditions: Permittee shall initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release. Permittee shall re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection. [District Rule 4401, 5.4.4.1] Federally Enforceable Through Title V Permit

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129. Casing Collection System Condition: Permittee shall inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. [District Rule 4401, 5.4.4.2] Federally Enforceable Through Title V Permit
130. Casing Collection System Conditions: Except for PRDs, permittee shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401, 5.4.4.3] Federally Enforceable Through Title V Permit
131. Casing Collection System Conditions: Permittee shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak. The following information shall be included on the tag: 1) the date and time of leak detection; 2) the date and time of leak measurement; 3) leak concentration in ppmv for a gaseous leak; 4) description of whether it is a major liquid leak or a minor liquid leak; and 5) whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401, 5.5.1] Federally Enforceable Through Title V Permit
132. Casing Collection System Conditions: Permittee shall keep the tag affixed to the component until all of the following conditions have been met: 1) the leaking component has been repaired or replaced, and 2) the component has been re-inspected using the test methods described in this permit; and 3) the component is found to be in compliance with the requirements of Rule 4401. [District Rule 4401, 5.5.2] Federally Enforceable Through Title V Permit
133. Casing Collection System Conditions: Permittee shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.5.3] Federally Enforceable Through Title V Permit
134. Casing Collection System Conditions: Except for leaking critical components or leaking essential components, if the operator has minimized a leak but the leak still exceeds the applicable leak limits, the operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 3 of Rule 4401: 1) repair or replace the leaking component; 2) vent the leaking component to a VOC collection and control system; or 3) remove the leaking component from operation. [District Rule 4401, 5.5.4] Federally Enforceable Through Title V Permit
135. Casing Collection System Conditions: The leak rate, measured after leak minimization has been performed, shall be used to determine the applicable repair period specified in Table 3 of Rule 4401 and the time of initial leak detection shall be the start of the repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5.5] Federally Enforceable Through Title V Permit
136. Casing Collection System Conditions: If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401, 5.5.7] Federally Enforceable Through Title V Permit

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

137. Casing Collection System Conditions: Permittee shall maintain an inspection log in which, at a minimum, all of the following information shall be recorded for each inspection performed: 1) The total number of components inspected, and the total number and percentage of leaking components found by component type; 2) The location, type, and name or description of each leaking component and description of any unit where the leaking component is found; 3) The date of leak detection and the method of leak detection; 4) For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak; 5) The date of repair, replacement, or removal from operation of leaking components; 6) The identity and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; 7) The methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; 8) The date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced; 9) The inspector's name, business mailing address, and business telephone number; and 10) The date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401, 6.4] Federally Enforceable Through Title V Permit
138. Casing Collection System Conditions: Permittee shall perform leak inspections at least annually, using a portable hydrocarbon detection instrument in accordance with USEPA Method 21. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one centimeter or less from the surface of the component interface. [District Rule 4401, 6.3.3] Federally Enforceable Through Title V Permit
139. Casing Collection System Conditions: Annual control efficiency compliance tests shall be performed by source testers certified by the California Air Resource Board (CARB) on all vapor collection and control systems used to control emissions from steam-enhanced crude oil production wells. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. The APCO may waive these source testing requirements if the vapor control system does not exhaust to atmosphere, or if all uncondensed VOC emissions collected by the vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine, or in a smokeless flare. [District Rule 4401, 6.2.1 & 6.2.2] Federally Enforceable Through Title V Permit
140. Casing Collection System Conditions: The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4401, 6.3.1] Federally Enforceable Through Title V Permit
141. Casing Collection System Conditions: VOC content shall be determined using ASTM Method E168, E169, or E260 as applicable. Halogenated exempt compounds shall be determined by ARB Method 432. [District Rule 4401, 6.3.2] Federally Enforceable Through Title V Permit
142. Casing Collection System Conditions: VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401, 6.3.4] Federally Enforceable Through Title V Permit
143. Casing Collection System Conditions: Permittee shall establish and implement an employee training program for inspecting and repairing components and recordkeeping procedures, as necessary. Permittee shall maintain at the facility the copies of the training records of the training program. [District Rule 4401, 6.1.6 & 6.5] Federally Enforceable Through Title V Permit
144. Casing Collection System Conditions: Unless the source testing requirement is waived by the District, permittee shall maintain source test records which show that the control efficiency requirements of the VOC collection and control system have been satisfied. [District Rule 4401, 6.1.3] Federally Enforceable Through Title V Permit

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

145. Casing Collection System Conditions: Permittee shall maintain monitoring records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401, 6.1.1] Federally Enforceable Through Title V Permit
146. Casing Collection System Conditions: Records shall be maintained of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components. The records shall include a copy of the current calibration gas certification from the vendor of the calibration gas cylinder, the date of calibration, the concentration of calibration gas, the instrument reading of calibration gas before adjustment, the instrument reading of calibration gas after adjustment, the calibration gas expiration date, and the calibration gas cylinder pressure at the time of calibration. [District Rule 4401, 6.1.5] Federally Enforceable Through Title V Permit
147. Emergency Standby IC Engine Condition: Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
148. Emergency Standby IC Engine Condition: This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.9.4 and 17 CCR 93115] Federally Enforceable Through Title V Permit
149. Emergency Standby IC Engine Condition: This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702, 5.9.2] Federally Enforceable Through Title V Permit
150. Emergency Standby IC Engine Condition: Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801 and 17 CCR 93115] Federally Enforceable Through Title V Permit
151. Emergency Standby IC Engine Condition: During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702, 5.9.3] Federally Enforceable Through Title V Permit
152. Emergency Standby IC Engine Condition: The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.), and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rules 4702, 6.2.3 and 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit
153. Emergency Standby IC Engine Condition: The permittee shall maintain monthly records of the type of fuel purchased, the amount of fuel purchased, date when the fuel was purchased, signature of the permittee who received the fuel, and signature of the fuel supplier indicating that the fuel was delivered. [District Rule 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

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

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1141-549-12

EXPIRATION DATE: 02/29/2016

SECTION: NW17 TOWNSHIP: 32S RANGE: 23E

## EQUIPMENT DESCRIPTION:

62.5 MMBTU/HR NATURAL/TEOR/TVC GAS-FIRED STRUTHERS STEEL STEAM GENERATOR WITH A NORTH AMERICAN MAGNA-FLAME GLE ULTRA LOW-NOX BURNER, WITH AN O2 ANALYZER/CONTROLLER AND FLUE GAS RECIRCULATION (FGR) SYSTEM WITH VARIABLE SPEED INTAKE AIR BLOWER, ORIFICE PLATE(S), AND ELECTRONIC CONTROLS (NATIONAL BOARD #1026)

## PERMIT UNIT REQUIREMENTS

1. When combustion air orifice and flue gas recirculation orifice have been used to demonstrate compliance they shall not be changed without a District-witnessed compliance demonstration. [District NSR Rule] Federally Enforceable Through Title V Permit
2. Emissions from the steam generator shall not exceed any of the following limits: 0.126 lb-SOx/MMBtu, 0.096 lb-PM10/MMBtu, or 0.003 lb-VOC/MMBtu. [District Rule 2201 and 4320] Federally Enforceable Through Title V Permit
3. Except during start-up and shutdown periods emissions from the steam generator shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.0182 lb-NOx/MMBtu or 51 ppmvd CO @ 3% O2 or 0.0375 lb-CO/MMBtu. [District Rules 2201, 4301, 5.2, 4305, 5.1, 4306, 5.1 and 4320] Federally Enforceable Through Title V Permit
4. Fuel gas sulfur content shall not exceed 5 gr S/100 dscf unless SOx emissions are reduced by 95% or to 9 ppmv SOx @ 3% O2 in the exhaust with scrubber. [District Rule 4320]
5. During start-up and shutdown periods, emissions from the steam generator shall not exceed the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 54.0 lb-NOx/day, 9,965 lb-NOx/yr, 56.3 lb-CO/day, and 20,531 lb-CO/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Permittee shall maintain with the permit a current listing of all TEOR and TVC gas systems providing vapors to this steam generator and shall make such listing readily available for District inspection upon request [District NSR Rule] Federally Enforceable Through Title V Permit
8. This unit is subject to Steam Generator General Conditions on the facility wide permit S-1141-0. [District Rules 2520, 4201, 4301, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
9. This unit is subject to Steam Generator Fuel Monitoring Conditions on the facility wide permit S-1141-0. [District Rules 1080 and 2520] Federally Enforceable Through Title V Permit
10. This unit is subject to Steam Generator Source Testing Conditions on the facility wide permit S-1141-0. [District Rules 1081, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
11. This unit is subject to Steam Generator Periodic Monitoring Conditions on the facility wide permit S-1141-0. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

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

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1141-550-10

EXPIRATION DATE: 02/29/2016

SECTION: NW17 TOWNSHIP: 32S RANGE: 23E

## EQUIPMENT DESCRIPTION:

62.5 MMBTU/HR NATURAL/TEOR/TVC GAS-FIRED SMITH MOON STEEL STEAM GENERATOR WITH A NORTH AMERICAN MAGNA-FLAME GLE ULTRA-LOW NOX BURNER WITH AN O2 ANALYZER/CONTROLLER AND FGR WITH VARIABLE SPEED INTAKE AIR BLOWER, ORIFICE PLATE(S), AND ELECTRONIC CONTROLS (NATIONAL BOARD #879)

## PERMIT UNIT REQUIREMENTS

1. Flue gas recirculation system may be designed such that ambient air may be drawn into flue gas recirculation piping. [District Rule 2201]
2. When combustion air orifice and flue gas recirculation orifice have been used to demonstrate compliance they shall not be changed without a District-witnessed compliance demonstration. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Emissions from the steam generator shall not exceed any of the following limits: 0.126 lb-SO<sub>x</sub>/MMBtu, 0.073 lb-PM<sub>10</sub>/MMBtu, or 0.003 lb-VOC/MMBtu. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
4. 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 and 4320] Federally Enforceable Through Title V Permit
5. Fuel gas sulfur content shall not exceed 5 gr S/100 dscf unless SO<sub>x</sub> emissions are reduced by 95% or to 9 ppmv SO<sub>x</sub> @ 3% O<sub>2</sub> in the exhaust with scrubber. [District Rule 4320]
6. 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
7. 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] Federally Enforceable Through Title V Permit
8. Permittee shall maintain with the permit a current listing of all TEOR and TVC gas systems providing vapors to this steam generator and shall make such listing readily available for District inspection upon request [District NSR Rule] Federally Enforceable Through Title V Permit
9. This unit is subject to Steam Generator General Conditions on the facility wide permit S-1141-0. [District Rules 2520, 4201, 4301, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
10. This unit is subject to Steam Generator Fuel Monitoring Conditions on the facility wide permit S-1141-0. [District Rules 1080 and 2520] Federally Enforceable Through Title V Permit
11. This unit is subject to Steam Generator Source Testing Conditions on the facility wide permit S-1141-0. [District Rules 1081, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

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

12. This unit is subject to Steam Generator Periodic Monitoring Conditions on the facility wide permit S-1141-0. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

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

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-1141-551-9

**EXPIRATION DATE:** 02/29/2016

**SECTION:** NW17 **TOWNSHIP:** 32S **RANGE:** 23E

## **EQUIPMENT DESCRIPTION:**

62.5 MMBTU/HR NATURAL/TEOR/TVC GAS FIRED CE NATCO STEAM GENERATOR (NATIONAL BOARD #2369) WITH A NORTH AMERICAN MODEL MAGNA-FLAME GLE ULTRA LOW NOX BURNER, AN O2 CONTROLLER, AND A FLUE GAS RECIRCULATION SYSTEM

## **PERMIT UNIT REQUIREMENTS**

1. {533} Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
2. {1669} This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, 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
3. This unit is located west of interstate 5 in Kern County. Therefore, the requirements of District Rule 4351 (Amended October 19, 1995) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
4. Flue gas recirculation system may be designed such that ambient air may be drawn into flue gas recirculation piping. [District NSR Rule] Federally Enforceable Through Title V Permit
5. When combustion air orifice and flue gas recirculation orifice have been used to demonstrate compliance they shall not be changed without a District-witnessed compliance demonstration. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Emission rates shall not exceed: PM10: 117.0 lb/day or 42,705 lb/year, SOx: 189 lb/day or 68,985 lb/year, NOx (as NO2): 54.0 lb/day or 9855 lb/year, VOC: 9.0 lb/day or 3285 lb/year, CO: 49.5 lb/day or 18,068 lb/year. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
7. Emission rates shall not exceed any of the following: PM10: 0.078 lb/MMBtu, SOx (as SO2) 0.126 lb/MMBtu, or VOC: 0.006 lb/MMBtu. [District NSR Rule and District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
8. Emission rates, except during startup and shutdown, shall not exceed any of the following: NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 45 ppmv @ 3% O2. [District NSR Rule and District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
9. Fuel gas sulfur content shall not exceed 5 gr S/100 dscf unless SOx emissions are reduced by 95% or to 9 ppmv SOx @ 3% O2 in the exhaust with scrubber. [District Rule 4320]
10. During start-up and shutdown periods, emissions from the steam generator shall not exceed the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. Permittee shall pave and maintain with asphalt no less than 0.45 miles of roadway. The 0.45 miles of roadways constructed are in addition to new roadways associated with other steam injection and oil production well projects [District NSR Rule] Federally Enforceable Through Title V Permit
12. Permittee shall maintain daily records of volume of natural gas burned, TEOR and TVC gas incinerated, and permit number(s) of systems providing gas for incineration and shall make the preceding five years records available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
13. All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of this Authority to Construct 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 78-16] Federally Enforceable Through Title V Permit
14. The EPA Regional Administrator shall be notified by telephone, facsimile, or electronic mail transmission within two (2) working days 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 emission limit stated in the condition below. In addition, the Regional Administrator shall be notified in writing within fifteen (15) days of any such failure. The notification shall include a description of the malfunctioning equipment or abnormal operation, the date of the 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 condition below, and the methods utilized to mitigate emissions and 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 78-16] Federally Enforceable Through Title V Permit
15. The EPA Regional Administrator, the head of the State Air Pollution Control Agency, the head of the responsible local Air Pollution Control Agency, and/or their authorized representative, upon the presentation of credentials, shall be permitted: A. to enter the premises where the source is located or where any records are required to be kept under the terms and conditions of this Authority to Construct; and B. at reasonable times to have access to and copy any records required to be kept under the terms and conditions of this Authority to Construct; and C. to inspect any equipment, operation, or method required in this Authority to Construct; and D. to sample emissions from the source(s). [PSD SJ 78-16] Federally Enforceable Through Title V Permit
16. In the event of any changes in control or ownership of the facilities to be constructed, the Authority to Construct shall be binding on all subsequent owners and operators. The applicant shall notify the succeeding owner and operator of the existence of this Authority to Construct and its conditions by letter, a copy of which shall be forwarded to the EPA Regional Administrator and the State and local Air Pollution Control Agency. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
17. The provisions of this Authority to Construct are severable, and, if any provision of the Authority to Construct is held invalid, the remainder of this Authority to Construct shall not be affected thereby. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
18. The owner and operator of the proposed facility shall construct and operate the proposed stationary source in compliance with all other applicable provisions of 40 CFR Parts 52, 60, and 61 and all other applicable federal, state, and local air quality regulations. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
19. Permittee shall consume no more than 5125 barrels per day of oil on a daily maximum average and no more than 4648 barrels per day of oil on an annual average basis. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
20. The sulfur content of the fuel shall be no greater than 1.5% by weight on a daily maximum average and no greater than 1.5% by weight on an annual average basis, as determined by ASTM Methods D115-68, D129-64, or D151-64, or equivalent methods approved by the EPA. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
21. Permittee shall not discharge into the atmosphere SO<sub>2</sub> in excess of 0.063 lbs/MMBtu. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
22. The amount of fuel burned and the sulfur content of the fuel shall be recorded in a permanent record and shall be available for periodic inspection by the District, the California Air Resource Board, and the EPA. [PSD SJ 78-16] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

23. Permittee shall have installed operable scrubbers on the equipment. Exhaust gases from the generators shall be ducted through operable scrubbers. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
24. Within 60 days after achieving the maximum production rate of the proposed facility, but not later than 180 days after initial start-up of this facility (as defined in 40 CFR 60.2(o)), and at such other times as specified by the EPA, permittee shall conduct performance tests for SO<sub>2</sub>, and furnish the District and the EPA a written report of the results of such tests. The tests for SO<sub>2</sub> shall be conducted on an annual basis. The performance tests shall be conducted for each scrubber required for the generator. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
25. Permittee shall not discharge into the atmosphere NO<sub>x</sub> in excess of 0.277 lb/MMBtu (maximum 2-hour average). [PSD SJ 78-16] Federally Enforceable Through Title V Permit
26. Within 60 days after achieving the maximum production rate of the proposed facility, but not later than 180 days after initial start-up of this facility (as defined in 40 CFR 60.2(o)), and at such other times as specified by the EPA, permittee shall conduct performance test for NO<sub>x</sub>, and furnish the District and the EPA written report of the results of such tests. The tests for NO<sub>x</sub> shall be conducted on an annual basis and at the maximum operating capacity of the facilities being tested. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
27. Permittee shall install and operate ammonia injection equipment to control nitrogen oxide emissions on the steam generator. This condition may be amended if other control technologies are determined by EPA to satisfy BACT requirements, in accordance with the periodic BACT review procedure below. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
28. Permittee shall submit updated Best Available Control Technology (BACT) proposals every six months. Based on the information submitted and on other information which is available at that time, EPA may impose more stringent emission limits for NO<sub>x</sub>. In no event shall EPA set a higher emission limit for NO<sub>x</sub>. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
29. Performance tests for the emission of NO<sub>x</sub> and SO<sub>2</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. The EPA shall be notified at least 30 days in advance of such test to allow an observer to be present. In lieu of the above mentioned test methods, equivalent methods may be used if approved by the EPA. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
30. This unit is subject to Steam Generator General Conditions on the facility wide permit S-1141-0. [District Rules 2520, 4201, 4301, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
31. This unit is subject to Steam Generator Fuel Monitoring Conditions on the facility wide permit S-1141-0. [District Rules 1080 and 2520] Federally Enforceable Through Title V Permit
32. This unit is subject to Steam Generator Source Testing Conditions on the facility wide permit S-1141-0. [District Rules 1081, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
33. This unit is subject to Steam Generator Periodic Monitoring Conditions on the facility wide permit S-1141-0. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

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

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-1141-552-9

**EXPIRATION DATE:** 02/29/2016

**SECTION:** NW17 **TOWNSHIP:** 32S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**

62.5 MMBTU/HR NATURAL/TEOR/TVC GAS FIRED CE NATCO STEAM GENERATOR (NATIONAL BOARD #192) WITH NORTH AMERICAN MAGNA-FLAME GLE ULTRA-LOW NOX BURNER, O2 CONTROLLER, AND FGR

## PERMIT UNIT REQUIREMENTS

1. {533} Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
2. {1669} This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, 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
3. This unit is located west of Interstate 5 in Kern County. Therefore, the requirements of District Rule 4351(Amended October 19, 1995) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
4. Flue gas recirculation system may be designed such that ambient air may be drawn into flue gas recirculation piping. [District NSR Rule] Federally Enforceable Through Title V Permit
5. When combustion air orifice and flue gas recirculation orifice have been used to demonstrate compliance they shall not be changed without a District-witnessed compliance demonstration. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Emission rates shall not exceed: PM10: 117.0 lb/day or 42,705 lb/year, SOx: 189 lb/day or 68,985 lb/year, NOx (as NO2): 54.0 lb/day or 9855 lb/year, VOC: 9.0 lb/day or 3285 lb/year, CO: 49.5 lb/day or 18,068 lb/year. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Emission rates shall not exceed any of the following: PM10: 0.078 lb/MMBtu, SOx (as SO2) 0.126 lb/MMBtu, or VOC: 0.006 lb/MMBtu. [District NSR Rule, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
8. Emission rates, except during startup and shutdown, shall not exceed any of the following: NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2 or CO: 0.033 lb/MMBtu or 45 ppmv @ 3% O2. [District NSR Rule, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
9. During start-up and shutdown periods, emissions from the steam generator shall not exceed the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Fuel gas sulfur content shall not exceed 5 gr S/100 dscf unless SOx emissions are reduced by 95% or to 9 ppmv SOx @ 3% O2 in the exhaust with scrubber. [District Rule 4320]
11. Permittee shall pave and maintain with asphalt no less than 0.45 miles of roadway. The 0.45 miles of roadways constructed are in addition to new roadways associated with other steam injection and oil production well projects [District NSR Rule] Federally Enforceable Through Title V Permit

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

12. Permittee shall maintain daily records of volume of natural gas burned, TEOR and TVC gas incinerated, and permit number(s) of systems providing gas for incineration and shall make the preceding five years records available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
13. All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of this Authority to Construct 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 78-16] Federally Enforceable Through Title V Permit
14. The EPA Regional Administrator shall be notified by telephone, facsimile, or electronic mail transmission within two (2) working days 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 emission limit stated in the condition below. In addition, the Regional Administrator shall be notified in writing within fifteen (15) days of any such failure. The notification shall include a description of the malfunctioning equipment or abnormal operation, the date of the 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 condition below, and the methods utilized to mitigate emissions and 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 78-16] Federally Enforceable Through Title V Permit
15. The EPA Regional Administrator, the head of the State Air Pollution Control Agency, the head of the responsible local Air Pollution Control Agency, and/or their authorized representative, upon the presentation of credentials, shall be permitted: A. to enter the premises where the source is located or where any records are required to be kept under the terms and conditions of this Authority to Construct; and B. at reasonable times to have access to and copy any records required to be kept under the terms and conditions of this Authority to Construct; and C. to inspect any equipment, operation, or method required in this Authority to Construct; and D. to sample emissions from the source(s). [PSD SJ 78-16] Federally Enforceable Through Title V Permit
16. In the event of any changes in control or ownership of the facilities to be constructed, the Authority to Construct shall be binding on all subsequent owners and operators. The applicant shall notify the succeeding owner and operator of the existence of this Authority to Construct and its conditions by letter, a copy of which shall be forwarded to the EPA Regional Administrator and the State and local Air Pollution Control Agency. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
17. The provisions of this Authority to Construct are severable, and, if any provision of the Authority to Construct is held invalid, the remainder of this Authority to Construct shall not be affected thereby. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
18. The owner and operator of the proposed facility shall construct and operate the proposed stationary source in compliance with all other applicable provisions of 40 CFR Parts 52, 60, and 61 and all other applicable federal, state, and local air quality regulations. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
19. Permittee shall consume no more than 5125 barrels per day of oil on a daily maximum average and no more than 4648 barrels per day of oil on an annual average basis. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
20. The sulfur content of the fuel shall be no greater than 1.5% by weight on a daily maximum average and no greater than 1.5% by weight on an annual average basis, as determined by ASTM Methods D115-68, D129-64, or D151-64, or equivalent methods approved by the EPA. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
21. The amount of fuel burned and the sulfur content of the fuel shall be recorded in a permanent record and shall be available for periodic inspection by the District, the California Air Resource Board, and the EPA. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
22. Permittee shall have installed operable scrubbers on the equipment. Exhaust gases from the generators shall be ducted through operable scrubbers. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
23. Permittee shall not discharge into the atmosphere SO<sub>2</sub> in excess of 0.063 lbs/MMBtu. [PSD SJ 78-16] Federally Enforceable Through Title V Permit

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

24. Within 60 days after achieving the maximum production rate of the proposed facility, but not later than 180 days after initial start-up of this facility (as defined in 40 CFR 60.2(o)), and at such other times as specified by the EPA, permittee shall conduct performance tests for SO<sub>2</sub>, and furnish the District and the EPA a written report of the results of such tests. The tests for SO<sub>2</sub> shall be conducted on an annual basis. The performance tests shall be conducted for each scrubber required for the generator. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
25. Within 60 days after achieving the maximum production rate of the proposed facility, but not later than 180 days after initial start-up of this facility (as defined in 40 CFR 60.2(o)), and at such other times as specified by the EPA, permittee shall conduct performance test for NO<sub>x</sub>, and furnish the District and the EPA written report of the results of such tests. The tests for NO<sub>x</sub> shall be conducted on an annual basis and at the maximum operating capacity of the facilities being tested. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
26. Permittee shall not discharge into the atmosphere NO<sub>x</sub> in excess of 0.277 lb/MMBtu (maximum 2-hour average). [PSD SJ 78-16] Federally Enforceable Through Title V Permit
27. Permittee shall install and operate ammonia injection equipment to control nitrogen oxide emissions on the steam generator. This condition may be amended if other control technologies are determined by EPA to satisfy BACT requirements, in accordance with the periodic BACT review procedure below. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
28. Permittee shall submit updated Best Available Control Technology (BACT) proposals every six months. Based on the information submitted and on other information which is available at that time, EPA may impose more stringent emission limits for NO<sub>x</sub>. In no event shall EPA set a higher emission limit for NO<sub>x</sub>. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
29. Performance tests for the emission of NO<sub>x</sub> and SO<sub>2</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. The EPA shall be notified at least 30 days in advance of such test to allow an observer to be present. In lieu of the above mentioned test methods, equivalent methods may be used if approved by the EPA. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
30. This unit is subject to Steam Generator General Conditions on the facility wide permit S-1141-0. [District Rules 2520, 4201, 4301, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
31. This unit is subject to Steam Generator Fuel Monitoring Conditions on the facility wide permit S-1141-0. [District Rules 1080 and 2520] Federally Enforceable Through Title V Permit
32. This unit is subject to Steam Generator Source Testing Conditions on the facility wide permit S-1141-0. [District Rules 1081, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
33. This unit is subject to Steam Generator Periodic Monitoring Conditions on the facility wide permit S-1141-0. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

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

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1141-553-9

EXPIRATION DATE: 02/29/2016

SECTION: NW17 TOWNSHIP: 32S RANGE: 23E

## EQUIPMENT DESCRIPTION:

62.5 MMBTU/HR NATURAL/TEOR/TVC GAS FIRED SMITH MOON STEEL STEAM GENERATOR (NATIONAL BOARD #552) WITH NORTH AMERICAN GLE MAGNA FLAME LOW NOX BURNER, O2 ANALYZER/CONTROLLER, AND FGR WITH VARIABLE SPEED INTAKE AIR BLOWER, ORIFICE PLATE(S), AND ELECTRONIC CONTROLS

## PERMIT UNIT REQUIREMENTS

1. {533} Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
2. {1669} This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, 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
3. This unit is located west of Interstate 5 in Kern County. Therefore, the requirements of District Rule 4351 (Amended October 19, 1995) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
4. Flue gas recirculation system may be designed such that ambient air may be drawn into flue gas recirculation piping. [District Rule 2201]
5. When combustion air orifice and flue gas recirculation orifice have been used to demonstrate compliance they shall not be changed without a District-witnessed compliance demonstration. [District NSR Rule] Federally Enforceable Through Title V Permit
6. Emission rates shall not exceed: PM10: 117.0 lb/day or 42,705 lb/year, SOx: 189.0 lb/day or 68,985 lb/year, NOx (as NO2): 54.0 lb/day or 9855 lb/year, VOC: 9.0 lb/day or 3285 lb/year, CO: 49.5 lb/day or 18,068 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Emission rates shall not exceed any of the following: PM10: 0.078 lb/MMBtu, SOx (as SO2) 0.126 lb/MMBtu, or VOC: 0.006 lb/MMBtu. [District Rule 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
8. Emission rates, except during startup and shutdown, shall not exceed any of the following: NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 45 ppmv @ 3% O2. [District Rule 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
9. During start-up and shutdown periods, emissions from the steam generator shall not exceed the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Permittee shall pave and maintain with asphalt no less than 0.45 miles of roadway. The 0.45 miles of roadways constructed are in addition to new roadways associated with other steam injection and oil production well projects [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

11. Permittee shall maintain daily records of volume of natural gas burned, TEOR and TVC gas incinerated, and permit number(s) of systems providing gas for incineration and shall make the preceding five years records available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
12. All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of this Authority to Construct 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 78-16] Federally Enforceable Through Title V Permit
13. The EPA Regional Administrator shall be notified by telephone, facsimile, or electronic mail transmission within two (2) working days 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 emission limit stated in the condition below. In addition, the Regional Administrator shall be notified in writing within fifteen (15) days of any such failure. The notification shall include a description of the malfunctioning equipment or abnormal operation, the date of the 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 condition below, and the methods utilized to mitigate emissions and 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 78-16] Federally Enforceable Through Title V Permit
14. The EPA Regional Administrator, the head of the State Air Pollution Control Agency, the head of the responsible local Air Pollution Control Agency, and/or their authorized representative, upon the presentation of credentials, shall be permitted: A. to enter the premises where the source is located or where any records are required to be kept under the terms and conditions of this Authority to Construct; and B. at reasonable times to have access to and copy any records required to be kept under the terms and conditions of this Authority to Construct; and C. to inspect any equipment, operation, or method required in this Authority to Construct; and D. to sample emissions from the source(s). [PSD SJ 78-16] Federally Enforceable Through Title V Permit
15. In the event of any changes in control or ownership of the facilities to be constructed, the Authority to Construct shall be binding on all subsequent owners and operators. The applicant shall notify the succeeding owner and operator of the existence of this Authority to Construct and its conditions by letter, a copy of which shall be forwarded to the EPA Regional Administrator and the State and local Air Pollution Control Agency. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
16. The provisions of this Authority to Construct are severable, and, if any provision of the Authority to Construct is held invalid, the remainder of this Authority to Construct shall not be affected thereby. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
17. The owner and operator of the proposed facility shall construct and operate the proposed stationary source in compliance with all other applicable provisions of 40 CFR Parts 52, 60, and 61 and all other applicable federal, state, and local air quality regulations. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
18. Permittee shall consume no more than 5125 barrels per day of oil on a daily maximum average and no more than 4648 barrels per day of oil on an annual average basis. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
19. The sulfur content of the fuel shall be no greater than 1.5% by weight on a daily maximum average and no greater than 1.5% by weight on an annual average basis, as determined by ASTM Methods D115-68, D129-64, or D151-64, or equivalent methods approved by the EPA. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
20. The amount of fuel burned and the sulfur content of the fuel shall be recorded in a permanent record and shall be available for periodic inspection by the District, the California Air Resource Board, and the EPA. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
21. Permittee shall have installed operable scrubbers on the equipment. Exhaust gases from the generators shall be ducted through operable scrubbers. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
22. Permittee shall not discharge into the atmosphere SO<sub>2</sub> in excess of 0.063 lbs/MMBtu. [PSD SJ 78-16] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

23. Within 60 days after achieving the maximum production rate of the proposed facility, but not later than 180 days after initial start-up of this facility (as defined in 40 CFR 60.2(o)), and at such other times as specified by the EPA, permittee shall conduct performance tests for SO<sub>2</sub>, and furnish the District and the EPA a written report of the results of such tests. The tests for SO<sub>2</sub> shall be conducted on an annual basis. The performance tests shall be conducted for each scrubber required for the generator. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
24. Within 60 days after achieving the maximum production rate of the proposed facility, but not later than 180 days after initial start-up of this facility (as defined in 40 CFR 60.2(o)), and at such other times as specified by the EPA, permittee shall conduct performance test for NO<sub>x</sub>, and furnish the District and the EPA written report of the results of such tests. The tests for NO<sub>x</sub> shall be conducted on an annual basis and at the maximum operating capacity of the facilities being tested. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
25. Permittee shall not discharge into the atmosphere NO<sub>x</sub> in excess of 0.277 lb/MMBtu (maximum 2-hour average). [PSD SJ 78-16] Federally Enforceable Through Title V Permit
26. Permittee shall install and operate ammonia injection equipment to control nitrogen oxide emissions on the steam generator. This condition may be amended if other control technologies are determined by EPA to satisfy BACT requirements, in accordance with the periodic BACT review procedure below. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
27. Permittee shall submit updated Best Available Control Technology (BACT) proposals every six months. Based on the information submitted and on other information which is available at that time, EPA may impose more stringent emission limits for NO<sub>x</sub>. In no event shall EPA set a higher emission limit for NO<sub>x</sub>. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
28. Performance tests for the emission of NO<sub>x</sub> and SO<sub>2</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. The EPA shall be notified at least 30 days in advance of such test to allow an observer to be present. In lieu of the above mentioned test methods, equivalent methods may be used if approved by the EPA. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
29. This unit is subject to Steam Generator General Conditions on the facility wide permit S-1141-0. [District Rules 2520, 4201, 4301, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
30. This unit is subject to Steam Generator Fuel Monitoring Conditions on the facility wide permit S-1141-0. [District Rules 1080 and 2520] Federally Enforceable Through Title V Permit
31. This unit is subject to Steam Generator Source Testing Conditions on the facility wide permit S-1141-0. [District Rules 1081, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
32. This unit is subject to Steam Generator Periodic Monitoring Conditions on the facility wide permit S-1141-0. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

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

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-1141-555-15

**EXPIRATION DATE:** 02/29/2016

**SECTION:** NW17 **TOWNSHIP:** 32S **RANGE:** 23E

## **EQUIPMENT DESCRIPTION:**

62.5 MMBTU/HR NATURAL/TEOR/TVC GAS FIRED SMITH MOON STEEL STEAM GENERATOR (NATIONAL BOARD #7953) WITH NORTH AMERICAN MAGNA-FLAME GLE ULTRA-LOW NOX BURNER, O2 CONTROLLER, FGR AND SO2 SCRUBBER SHARED WITH '-556 AND '-557

## **PERMIT UNIT REQUIREMENTS**

1. Exhaust from unit shall be directed to SOx scrubber authorized herein except when unit is combusting only PUC quality natural gas with a sulfur content not exceeding 1.0 gr S/100scf. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Scrubber control efficiency shall be maintained at least 95% by weight sulfur compounds or greater, or SO2 concentration at the stack gas outlet that shall not exceed 9 ppmvd corrected to 3% O2. [District Rule 2201] Federally Enforceable Through Title V Permit
3. 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
4. Daily average pH of scrubber liquor (calculated from hourly averages) shall be maintained between 6 and 8, and shall be continuously monitored. [District NSR Rule] Federally Enforceable Through Title V Permit
5. SO2 scrubber exhaust shall be vented to operational Brinks mist eliminator prior to being exhausted to atmosphere when total H2S loading to any one of the steam generators exceeds 1.24 lb/min for an aggregate of three or more minutes in any one hour period. H2S concentration of the TEOR gas shall be determined and entered into the generator fuel throughput processor weekly using gas detection tubes to determine H2S concentration. The H2S loading shall be calculated using the generator actual fuel volumetric flow rate and H2S concentration of the TEOR and fuel gas. [District Rules 2201 and 4101] Federally Enforceable Through Title V Permit
6. Scrubber mist eliminator shall be properly cleaned and maintained. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Flue gas recirculation system may be designed such that ambient air may be drawn into flue gas recirculation piping. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Annual combined emissions of PM10 from units '-555, '-556, and '-557 shall not exceed 115,687 lb/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Permittee shall demonstrate compliance with the annual PM10 combined emission limit for units '-555, '-556, and '-557 by calculation using the amount of fuel combusted, and either the results from the latest source test or the permitted emission factor if there is no PM10 source test data. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Emission rates shall not exceed any of the following: PM10: 109.5 lb/day, SOx: 94.5 lb/day, NOx (as NO2): 54.0 lb/day and 9855 lb/year, VOC: 9.0 lb/day, CO: 41.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

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

11. Emission rates shall not exceed any of the following: PM10: 0.073 lb/MMBtu, SOx (as SO2): 0.063 lb/MMBtu, or VOC: 0.006 lb/MMBtu. [District Rules 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
12. Except during periods of startup and shutdown, emission rates shall not exceed any of the following: NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 37 ppmv @ 3% O2 or 0.0273 lb/MMBtu. [District Rules 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
13. During start-up and shutdown periods, emissions from the steam generator shall not exceed the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Compliance with PM10 emissions limits (lb/MMBtu) shall be demonstrated by source testing, at startup and at least once every twelve (12) months thereafter. 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 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
15. Compliance with the scrubber control efficiency requirement shall be demonstrated at least once every twelve (12) months. [District Rule 2201]
16. Whenever the unit is switched to scrubbed operation, compliance source testing for SOx 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
17. Permittee shall pave and maintain with asphalt no less than 0.45 miles of roadway. The 0.45 miles of roadways constructed are in addition to new roadways associated with other steam injection and oil production well projects. [District NSR Rule] Federally Enforceable Through Title V Permit
18. Permittee shall maintain with the permit a current listing of all TEOR and TVC gas systems providing vapors to this steam generator and shall make such listing readily available for District inspection upon request [District NSR Rule] Federally Enforceable Through Title V Permit
19. Permittee shall maintain records of H2S loading (lb H2S/min) and dates and duration of Brinks Mist Eliminator operation and shall make such records readily available for District. [District Rule 2201] Federally Enforceable Through Title V Permit
20. This unit is subject to Steam Generator General Conditions on the facility wide permit S-1141-0. [District Rules 2520, 4201, 4301, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
21. This unit is subject to Steam Generator Fuel Monitoring Conditions on the facility wide permit S-1141-0. [District Rules 1080 and 2520] Federally Enforceable Through Title V Permit
22. This unit is subject to Steam Generator Source Testing Conditions on the facility wide permit S-1141-0. [District Rules 1081, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
23. This unit is subject to Steam Generator Periodic Monitoring Conditions on the facility wide permit S-1141-0. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

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

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1141-556-16

EXPIRATION DATE: 02/29/2016

SECTION: NW17 TOWNSHIP: 32S RANGE: 23E

## EQUIPMENT DESCRIPTION:

62.5 MMBTU/HR NATURAL/TEOR/TVC GAS-FIRED SMITH MOON STEEL STEAM GENERATOR (NATIONAL BOARD #653) WITH A NORTH AMERICAN MAGNA-FLAME GLE ULTRA-LOW NOX BURNER WITH O2 ANALYZER/CONTROLLER AND FGR WITH VARIABLE SPEED INTAKE AIR BLOWER, ORIFICE PLATE(S), ELECTRONIC CONTROLS AND SHARED SO2 SCRUBBER LISTED ON S-1141-555

## PERMIT UNIT REQUIREMENTS

1. Exhaust from unit shall be directed to SOx scrubber authorized herein except when unit is combusting only PUC quality natural gas with a sulfur content not exceeding 1.0 gr S/100scf. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Flue gas recirculation system may be designed such that ambient air may be drawn into flue gas recirculation piping. [District NSR Rule] Federally Enforceable Through Title V Permit
3. When combustion air orifice and flue gas recirculation orifice have been used to demonstrate compliance they shall not be changed without a District-witnessed compliance demonstration. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Permittee shall pave and maintain with asphalt no less than 0.45 miles of roadway. The 0.45 miles of roadways constructed are in addition to new roadways associated with other steam injection and oil production well projects [District NSR Rule] Federally Enforceable Through Title V Permit
5. Annual combined emissions of PM10 from units '-555, '-556, and '-557 shall not exceed 115,687 lb/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Emission rates shall not exceed any of the following: PM10: 109.5 lb/day, SOx: 94.5 lb/day, NOx (as NO2): 54.0 lb/day and 9855 lb/year, VOC: 9.0 lb/day, CO: 56.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Permittee shall demonstrate compliance with the annual PM10 combined emission limit for units '-555, '-556, and '-557 by calculation using the amount of fuel combusted, and either the results from the latest source test or the permitted emission factor if there is no PM10 source test data. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Except during periods of startup and shutdown, emission rates shall not exceed any of the following: NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 50 ppmv @ 3% O2 or 0.0375 lb/MMBtu. [District Rules 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
9. Emission rates shall not exceed any of the following: PM10: 0.073 lb/MMBtu, or SOx (as SO2): 0.063 lb/MMBtu or 9 ppmv @ 3% O2, or VOC: 0.006 lb/MMBtu. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
10. During start-up and shutdown periods, emissions from the steam generator shall not exceed the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

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

11. Compliance with PM10 emissions limits (lb/MMBtu) shall be demonstrated by source testing, at startup and at least once every twelve (12) months thereafter. 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 Rule 2201] Federally Enforceable Through Title V Permit
12. Permittee shall maintain with the permit a current listing of all TEOR and TVC gas systems providing vapors to this steam generator and shall make such listing readily available for District inspection upon request [District NSR Rule] Federally Enforceable Through Title V Permit
13. This unit is subject to Steam Generator General Conditions on the facility wide permit S-1141-0. [District Rules 2520, 4201, 4301, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
14. This unit is subject to Steam Generator Fuel Monitoring Conditions on the facility wide permit S-1141-0. [District Rules 1080 and 2520] Federally Enforceable Through Title V Permit
15. This unit is subject to Steam Generator Source Testing Conditions on the facility wide permit S-1141-0. [District Rules 1081, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
16. This unit is subject to Steam Generator Periodic Monitoring Conditions on the facility wide permit S-1141-0. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

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

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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-1141-557-14

**EXPIRATION DATE:** 02/29/2016

**SECTION:** NW17 **TOWNSHIP:** 32S **RANGE:** 23E

## **EQUIPMENT DESCRIPTION:**

62.5 MMBTU/HR NATURAL/TEOR/TVC GAS-FIRED C.E. NATCO STEAM GENERATOR (NATIONAL BOARD #9333, SMPS #8) WITH A NORTH AMERICAN MAGNA-FLAME GLE ULTRA LOW-NOX BURNER, WITH O2 ANALYZER/CONTROLLER AND FLUE GAS RECIRCULATION (FGR) SYSTEM WITH VARIABLE SPEED INTAKE AIR BLOWER, ORIFICE PLATE(S), ELECTRONIC CONTROLS AND SHARED SO2 SCRUBBER LISTED ON S-1141-555

## **PERMIT UNIT REQUIREMENTS**

1. Exhaust from unit shall be directed to SOx scrubber authorized herein except when unit is combusting only PUC quality natural gas with a sulfur content not exceeding 1.0 gr S/100scf. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Flue gas recirculation system may be designed such that ambient air may be drawn into flue gas recirculation piping. [District Rule 2201] Federally Enforceable Through Title V Permit
3. When combustion air orifice and flue gas recirculation orifice have been used to demonstrate compliance they shall not be changed without a District-witnessed compliance demonstration. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Permittee shall pave and maintain with asphalt no less than 0.45 miles of roadway. The 0.45 miles of roadways constructed are in addition to new roadways associated with other steam injection and oil production well projects [District NSR Rule] Federally Enforceable Through Title V Permit
5. Annual combined emissions of PM10 from units '-555, '-556, and '-557 shall not exceed 115,687 lb/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Permittee shall demonstrate compliance with the annual PM10 combined emission limit for units '-555, '-556, and '-557 by calculation using the amount of fuel combusted, and either the results from the latest source test or the permitted emission factor if there is no PM10 source test data. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Emission rates shall not exceed any of the following: PM10: 109.5 lb/day, SOx: 94.5 lb/day, NOx (as NO2): 54.0 lb/day and 9855 lb/year, VOC: 9.0 lb/day, CO: 56.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Emission rates shall not exceed any of the following: PM10: 0.073 lb/MMBtu, or SOx (as SO2): 0.063 lb/MMBtu or 9 ppmv @ 3%O2, or VOC: 0.006 lb/MMBtu. [District Rules 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
9. Except during periods of startup and shutdown, emission rates shall not exceed any of the following: NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 50 ppmv @ 3% O2 or 0.0375 lb/MMBtu. [District Rules 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
10. During start-up and shutdown periods, emissions from the steam generator shall not exceed the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

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

11. Compliance with PM<sub>10</sub> emissions limits (lb/MMBtu) shall be demonstrated by source testing, at startup and at least once every twelve (12) months thereafter. 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 Rule 2201] Federally Enforceable Through Title V Permit
12. Permittee shall maintain with the permit a current listing of all TEOR and TVC gas systems providing vapors to this steam generator and shall make such listing readily available for District inspection upon request [District NSR Rule] Federally Enforceable Through Title V Permit
13. This unit is subject to Steam Generator General Conditions on the facility wide permit S-1141-0. [District Rules 2520, 4201, 4301, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
14. This unit is subject to Steam Generator Fuel Monitoring Conditions on the facility wide permit S-1141-0. [District Rules 1080 and 2520] Federally Enforceable Through Title V Permit
15. This unit is subject to Steam Generator Source Testing Conditions on the facility wide permit S-1141-0. [District Rules 1081, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
16. This unit is subject to Steam Generator Periodic Monitoring Conditions on the facility wide permit S-1141-0. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

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

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# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1141-558-10

EXPIRATION DATE: 02/29/2016

SECTION: NW17 TOWNSHIP: 32S RANGE: 23E

## EQUIPMENT DESCRIPTION:

62.5 MMBTU/HR NATURAL/TEOR/TVC GAS FIRED CE NATCO STEAM GENERATOR (NATIONAL BOARD #2398) WITH A NORTH AMERICAN MAGNA-FLAME MODEL GLE ULTRA LOW NOX BURNER, FGR AND O2 CONTROLLER

## PERMIT UNIT REQUIREMENTS

- {533} Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
- {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
- {535} The requirements of SJVUAPCD Rule 4351 (Amended October 19, 1995) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
- Flue gas recirculation system may be designed such that ambient air may be drawn into flue gas recirculation piping. [District Rule 2201] Federally Enforceable Through Title V Permit
- When combustion air orifice and flue gas recirculation orifice have been used to demonstrate compliance they shall not be changed without a District-witnessed compliance demonstration. [District Rule 2201] Federally Enforceable Through Title V Permit
- Emission rates shall not exceed: PM10: 144.0 lb/day or 52,560 lb/year, SOx: 189 lb/day or 68,985 lb/year, NOx (as NO2): 54.0 lb/day or 9855 lb/year, VOC: 9.0 lb/day or 3285 lb/year, CO: 40.5 lb/day or 14,783 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
- Emission rates shall not exceed any of the following: PM10: 0.096 lb/MMBtu, SOx (as SO2) 0.126 lb/MMBtu, or VOC: 0.006 lb/MMBtu. [District Rule 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
- Emission rates, except during startup and shutdown, shall not exceed any of the following: NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 37 ppmv @ 3% O2. [District Rule 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
- Fuel gas sulfur content shall not exceed 5 gr S/100 dscf unless SOx emissions are reduced by 95% or to 9 ppmv SOx @ 3% O2 in the exhaust with scrubber. [District Rule 4320]
- During start-up and shutdown periods, emissions from the steam generator shall not exceed the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
- Permittee shall maintain with the permit a current listing of all TEOR and TVC gas systems providing vapors to this steam generator and shall make such listing readily available for District inspection upon request [District NSR Rule] Federally Enforceable Through Title V Permit
- This unit is subject to Steam Generator General Conditions on the facility wide permit S-1141-0. [District Rules 2520, 4201, 4301, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

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

13. This unit is subject to Steam Generator Fuel Monitoring Conditions on the facility wide permit S-1141-0. [District Rules 1080 and 2520] Federally Enforceable Through Title V Permit
14. This unit is subject to Steam Generator Source Testing Conditions on the facility wide permit S-1141-0. [District Rules 1081, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
15. This unit is subject to Steam Generator Periodic Monitoring Conditions on the facility wide permit S-1141-0. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

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

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# ATTACHMENT B

Previous Title V Operating Permit No.'s  
S-1141-0-2, -549-11, -550-9, -551-8, -552-8,  
-553-8, -555-12, -556-13, -557-11, and -558-9

# San Joaquin Valley Air Pollution Control District

FACILITY: S-1141-0-2

EXPIRATION DATE: 02/29/2016

## FACILITY-WIDE REQUIREMENTS

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1. The owner or operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100, 6.1; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] Federally Enforceable Through Title V Permit
2. The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100, 7.0; County Rules 110 (Fresno, Stanislaus, San Joaquin); 109 (Merced); 113 (Madera); and 111 (Kern, Tulare, Kings)] Federally Enforceable Through Title V Permit
3. The owner or operator of any stationary source operation that emits more than 25 tons per year of nitrogen oxides or reactive organic compounds, shall provide the District annually with a written statement in such form and at such time as the District prescribes, showing actual emissions of nitrogen oxides and reactive organic compounds from that source. [District Rule 1160, 5.0] Federally Enforceable Through Title V Permit
4. Any person building, altering or replacing any operation, article, machine, equipment, or other contrivance, the use of which may cause the issuance of air contaminants or the use of which may eliminate, reduce, or control the issuance of air contaminants, shall first obtain an Authority to Construct (ATC) from the District unless exempted by District Rule 2020 (12/20/07). [District Rule 2010, 3.0 and 4.0; and 2020] Federally Enforceable Through Title V Permit
5. The permittee must comply with all conditions of the permit including permit revisions originated by the District. All terms and conditions of a permit that are required pursuant to the Clean Air Act (CAA), including provisions to limit potential to emit, are enforceable by the EPA and Citizens under the CAA. Any permit noncompliance constitutes a violation of the CAA and the District Rules and Regulations, and is grounds for enforcement action, for permit termination, revocation, reopening and reissuance, or modification; or for denial of a permit renewal application. [District Rules 2070, 7.0; 2080; and 2520, 9.9.1 and 9.13.1] Federally Enforceable Through Title V Permit
6. A Permit to Operate or an Authority to Construct shall not be transferred unless a new application is filed with and approved by the District. [District Rule 2031] Federally Enforceable Through Title V Permit
7. Every application for a permit required under Rule 2010 (12/17/92) shall be filed in a manner and form prescribed by the District. [District Rule 2040] Federally Enforceable Through Title V Permit
8. The operator shall maintain records of required monitoring that include: 1) the date, place, and time of sampling or measurement; 2) the date(s) analyses were performed; 3) the company or entity that performed the analysis; 4) the analytical techniques or methods used; 5) the results of such analysis; and 6) the operating conditions at the time of sampling or measurement. [District Rule 2520, 9.4.1] Federally Enforceable Through Title V Permit
9. The operator shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, or report. Support information includes copies of all reports required by the permit and, for continuous monitoring instrumentation, all calibration and maintenance records and all original strip-chart recordings. [District Rules 2520, 9.4.2; 4624; 4702, 6.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

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

Facility Name: CHEVRON USA INC  
Location: HEAVY OIL WESTERN STATIONARY SOURCE, CA  
S-1141-0-2; Mar 21 2013 8:51AM - GONZALEV

10. The operator shall submit reports of any required monitoring at least every six months unless a different frequency is required by an applicable requirement. All instances of deviations from permit requirements must be clearly identified in such reports. [District Rule 2520, 9.5.1] Federally Enforceable Through Title V Permit
11. Deviations from permit conditions must be promptly reported, including deviations attributable to upset conditions, as defined in the permit. For the purpose of this condition, promptly means as soon as reasonably possible, but no later than 10 days after detection. The report shall include the probable cause of such deviations, and any corrective actions or preventive measures taken. All required reports must be certified by a responsible official consistent with section 10.0 of District Rule 2520 (6/21/01). [District Rules 2520, 9.5.2 and 1100, 7.0] Federally Enforceable Through Title V Permit
12. If for any reason a permit requirement or condition is being challenged for its constitutionality or validity by a court of competent jurisdiction, the outcome of such challenge shall not affect or invalidate the remainder of the conditions or requirements in that permit. [District Rule 2520, 9.7] Federally Enforceable Through Title V Permit
13. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. [District Rule 2520, 9.8.2] Federally Enforceable Through Title V Permit
14. The permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. [District Rule 2520, 9.8.3] Federally Enforceable Through Title V Permit
15. The permit does not convey any property rights of any sort, or any exclusive privilege. [District Rule 2520, 9.8.4] Federally Enforceable Through Title V Permit
16. The Permittee shall furnish to the District, within a reasonable time, any information that the District may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the District copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to EPA along with a claim of confidentiality. [District Rule 2520, 9.8.5] Federally Enforceable Through Title V Permit
17. The permittee shall pay annual permit fees and other applicable fees as prescribed in Regulation III of the District Rules and Regulations. [District Rule 2520, 9.9] Federally Enforceable Through Title V Permit
18. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to enter the permittee's premises where a permitted source is located or emissions related activity is conducted, or where records must be kept under condition of the permit. [District Rule 2520, 9.13.2.1] Federally Enforceable Through Title V Permit
19. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit. [District Rule 2520, 9.13.2.2] Federally Enforceable Through Title V Permit
20. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to inspect at reasonable times any facilities, equipment, practices, or operations regulated or required under the permit. [District Rule 2520, 9.13.2.3] Federally Enforceable Through Title V Permit
21. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. [District Rule 2520, 9.13.2.4] Federally Enforceable Through Title V Permit
22. No air contaminants shall be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is as dark or darker than Ringelmann #1 or equivalent to 20% opacity and greater, unless specifically exempted by District Rule 4101 (02/17/05), by using EPA Method 9. If the equipment or operation is subject to a more stringent visible emission standard as prescribed in a permit condition, the more stringent visible emission limit shall supersede this condition. [District Rule 4101, and County Rules 401 (in all eight counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

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

23. No person shall manufacture, blend, repackage, supply, sell, solicit or apply any architectural coating with a VOC content in excess of the corresponding limit specified in Table of Standards 1 effective until 12/30/10 or Table of Standards 2 effective on and after 1/1/11 of District Rule 4601 (12/17/09) for use or sale within the District. [District Rule 4601, 5.1] Federally Enforceable Through Title V Permit
24. All VOC-containing materials subject to Rule 4601 (12/17/09) shall be stored in closed containers when not in use. [District Rule 4601, 5.4] Federally Enforceable Through Title V Permit
25. The permittee shall comply with all the Labeling and Test Methods requirements outlined in Rule 4601 sections 6.1 and 6.3 (12/17/09). [District Rule 4601, 6.1 and 6.3] Federally Enforceable Through Title V Permit
26. With each report or document submitted under a permit requirement or a request for information by the District or EPA, the permittee shall include a certification of truth, accuracy, and completeness by a responsible official. [District Rule 2520, 9.13.1 and 10.0] Federally Enforceable Through Title V Permit
27. If the permittee performs maintenance on, or services, repairs, or disposes of appliances, the permittee shall comply with the standards for Recycling and Emissions Reduction pursuant to 40 CFR Part 82, Subpart F. [40 CFR 82 Subpart F] Federally Enforceable Through Title V Permit
28. If the permittee performs service on motor vehicles when this service involves the ozone-depleting refrigerant in the motor vehicle air conditioner (MVAC), the permittee shall comply with the standards for Servicing of Motor Vehicle Air Conditioners pursuant to all the applicable requirements as specified in 40 CFR Part 82, Subpart B. [40 CFR Part 82, Subpart B] Federally Enforceable Through Title V Permit
29. Disturbances of soil related to any construction, demolition, excavation, extraction, or other earthmoving activities shall comply with the requirements for fugitive dust control in District Rule 8021 unless specifically exempted under Section 4.0 of Rule 8021 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8021 and 8011] Federally Enforceable Through Title V Permit
30. Outdoor handling, storage and transport of any bulk material which emits dust shall comply with the requirements of District Rule 8031, unless specifically exempted under Section 4.0 of Rule 8031 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8031 and 8011] Federally Enforceable Through Title V Permit
31. An owner/operator shall prevent or cleanup any carryout or trackout in accordance with the requirements of District Rule 8041 Section 5.0, unless specifically exempted under Section 4.0 of Rule 8041 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8041 and 8011] Federally Enforceable Through Title V Permit
32. Whenever open areas are disturbed, or vehicles are used in open areas, the facility shall comply with the requirements of Section 5.0 of District Rule 8051, unless specifically exempted under Section 4.0 of Rule 8051 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8051 and 8011] Federally Enforceable Through Title V Permit
33. Any paved road or unpaved road shall comply with the requirements of District Rule 8061 unless specifically exempted under Section 4.0 of Rule 8061 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8061 and Rule 8011] Federally Enforceable Through Title V Permit
34. Any unpaved vehicle/equipment area that anticipates more than 50 Average annual daily Trips (AADT) shall comply with the requirements of Section 5.1.1 of District Rule 8071. Any unpaved vehicle/equipment area that anticipates more than 150 vehicle trips per day (VDT) shall comply with the requirements of Section 5.1.2 of District Rule 8071. On each day that 25 or more VDT with 3 or more axles will occur on an unpaved vehicle/equipment traffic area, the owner/operator shall comply with the requirements of Section 5.1.3 of District Rule 8071. On each day when a special event will result in 1,000 or more vehicles that will travel/park on an unpaved area, the owner/operator shall comply with the requirements of Section 5.1.4 of District Rule 8071. All sources shall comply with the requirements of Section 5.0 of District Rule 8071 unless specifically exempted under Section 4.0 of Rule 8071 (9/16/2004) or Rule 8011 (8/19/2004). [District Rule 8071 and Rule 8011] Federally Enforceable Through Title V Permit
35. Any owner or operator of a demolition or renovation activity, as defined in 40 CFR 61.141, shall comply with the applicable inspection, notification, removal, and disposal procedures for asbestos containing materials as specified in 40 CFR 61.145 (Standard for Demolition and Renovation). [40 CFR 61 Subpart M] Federally Enforceable Through Title V Permit

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

36. The permittee shall submit certifications of compliance with the terms and standards contained in Title V permits, including emission limits, standards and work practices, to the District and the EPA annually (or more frequently as specified in an applicable requirement or as specified by the District). The certification shall include the identification of each permit term or condition, the compliance status, whether compliance was continuous or intermittent, the methods used for determining the compliance status, and any other facts required by the District to determine the compliance status of the source. [District Rule 2520, 9.16] Federally Enforceable Through Title V Permit
37. The permittee shall submit an application for Title V permit renewal to the District at least six months, but not greater than 18 months, prior to the permit expiration date. [District Rule 2520, 5.2] Federally Enforceable Through Title V Permit
38. When a term is not defined in a Title V permit condition, the definition in the rule cited as the origin and authority for the condition in a Title V permits shall apply. [District Rule 2520, 9.1.1] Federally Enforceable Through Title V Permit
39. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following outdated SIP requirements: Rule 401 (Madera, Fresno, Kern, Kings, San Joaquin, Stanislaus, Tulare and Merced), Rule 110 (Fresno, Stanislaus, San Joaquin), Rule 109 (Merced), Rule 113 (Madera), Rule 111 (Kern, Tulare, Kings), and Rule 202 (Fresno, Kern, Tulare, Kings, Madera, Stanislaus, Merced, San Joaquin). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
40. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rules 1100, sections 6.1 and 7.0 (12/17/92); 2010, sections 3.0 and 4.0 (12/17/92); 2031 (12/17/92); 2040 (12/17/92); 2070, section 7.0 (12/17/92); 2080 (12/17/92); 4101 (2/17/05); 4601 (12/17/09); 8021 (8/19/2004); 8031 (8/19/2004); 8041 (8/19/2004); 8051 (8/19/2004); 8061 (8/19/2004); and 8071 (9/16/2004). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
41. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
42. All permits for facilities S-1128, S-1129, S-1141, S-1549, and S-2592 are included in the Chevron USA Inc. Heavy Oil Western stationary source. [District NSR Rule] Federally Enforceable Through Title V Permit
43. Facility shall comply with all applicable requirements regarding preparation and implementation of a risk management plan (RMP) by August 31, 1999, and shall abide by all applicable sections of 40 CFR Part 68. [40 CFR 68] Federally Enforceable Through Title V Permit
44. The following units are subject to the facility's SLC plan: S-1141-392, S-1141-394, S-1141-396, S-1141-402, S-1141-516, S-1141-517, S-1141-529. [District NSR Rule] Federally Enforceable Through Title V Permit
45. The reporting periods for the Report of Required Monitoring and the Compliance Certification Report begin November 30 of every year, unless alternative dates are approved by the District Compliance Division. These reports are due within 30 days after the end of the reporting period. [District Rule 2520] Federally Enforceable Through Title V Permit
46. Steam Generator General Condition: Nitrogen oxide (NO<sub>x</sub>) emissions shall not exceed 140 lb/hr, calculated as NO<sub>2</sub>. [District Rule 4301, 5.2.2] Federally Enforceable Through Title V Permit
47. Steam Generator General Condition: Particulate matter emissions shall not exceed 0.1 grain/dscf, 0.1 grain/dscf calculated to 12% CO<sub>2</sub>, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
48. Steam Generator General Condition: Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO<sub>2</sub>. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rule 2520, 9.3.2 and District Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit

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

49. Steam Generator General Condition: Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4306, 3.25 and 3.22] Federally Enforceable Through Title V Permit
50. Steam Generator General Condition: Duration of start-up or shutdown shall not exceed two hours each per occurrence. [District Rules 4305, 5.5 and 4306, 5.3] Federally Enforceable Through Title V Permit
51. Steam Generator General Condition: Permittee shall maintain records of duration of each start-up and shutdown. [District Rules 4305, 6.1 and 4306, 6.1.4] Federally Enforceable Through Title V Permit
52. Steam Generator General Condition: Annual tests results submitted to the District from unit(s) representing a group of units may be used to demonstrate compliance with NOx or CO limits of this permit, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NOx or CO emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. [District Rules 2520, 9.3.2; 4305, 6.3.2, and 4306, 6.3.2] Federally Enforceable Through Title V Permit
53. Steam Generator General Condition: The following conditions must be met for representative unit(s) to be used to test for NOx or CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2 and 4305, 6.3.2] Federally Enforceable Through Title V Permit
54. Steam Generator General Condition: All units in a group for which representative units are source for NOx or CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). These tune-up procedures shall be completed according to District Rule 4304 (Adopted October 19, 1995) and tune-up test results shall show comparable results for each unit in the group. Records shall be maintained for each unit of the group including all preventative and corrective maintenance work done. [District Rule 2520, 9.3.2; 4305, 6.3.2, and 4306, 6.3.2] Federally Enforceable Through Title V Permit
55. Steam Generator General Condition: All units in a group for which representative units are source tested for NOx or CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g. from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2; 4305, 6.3.2, and 4306, 6.3.2] Federally Enforceable Through Title V Permit
56. Steam Generator General Condition: The number of representative units source tested for NOx emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rule 2520, 9.3.2; 4305, 6.3.2, and 4306, 6.3.2] Federally Enforceable Through Title V Permit
57. Steam Generator General Condition: Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320]
58. Steam Generator General Condition: 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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59. Steam Generator Fuel Monitoring Condition: When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, each fuel source shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for a fuel source, then the fuel testing frequency shall be semi-annually. If a semi-annual fuel content source test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
60. Steam Generator Fuel Monitoring Condition: When complying with SO<sub>x</sub> emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8 or ARB Method 1-100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
61. Steam Generator Fuel Monitoring Condition: If the unit is fired on noncertified gaseous fuel and compliance with SO<sub>x</sub> emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ASTM D 6288, D 1072, D 3031, D 4084, D 3246, Double GC, or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
62. Steam Generator Fuel Monitoring Condition: If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by: ASTM D 1826, D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2520, 9.3.2 and 4305, 6.2.1] Federally Enforceable Through Title V Permit
63. Steam Generator Fuel Monitoring Condition: Copies of all fuel invoices, gas purchase contract, supplier certifications, and test results used to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel. [District Rule 2520, 9.4.2 and 40 CFR 60.48c(g)] Federally Enforceable Through Title V Permit
64. Steam Generator Fuel Monitoring Condition: Compliance with SO<sub>x</sub> emission limits shall be demonstrated by fuel gas sulfur contents analysis at the time of NO<sub>x</sub> testing, except for natural gas purchased from a PUC regulated utility. [District Rule 1081] Federally Enforceable Through Title V Permit
65. Steam Generator Source Testing Condition: All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5.2 and 4306, 5.5.2] Federally Enforceable Through Title V Permit
66. Steam Generator Source Testing Condition: The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1 and 4306, 5.5.1] Federally Enforceable Through Title V Permit
67. Steam Generator Source Testing Condition: For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5 and 4306, 5.5.5] Federally Enforceable Through Title V Permit
68. Steam Generator Source Testing Condition: 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
69. Steam Generator Source Testing Condition: Source testing to measure NO<sub>x</sub> and CO emissions from this unit while fired on natural gas shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3.1 and 4306, 6.3.1] Federally Enforceable Through Title V Permit

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70. Steam Generator Source Testing Condition: Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit
71. Steam Generator Source Testing Condition: 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
72. Steam Generator Source Testing Condition: Exhaust gas stack shall be equipped with adequate provisions facilitating the collection of gas samples consistent with EPA Test Methods or as approved by APCO. [District Rules 1081, 2201] Federally Enforceable Through Title V Permit
73. Steam Generator Source Testing Condition: 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 and 4306, 6.2] Federally Enforceable Through Title V Permit
74. Steam Generator Source Testing Condition: CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit
75. Steam Generator Source Testing Condition: 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 and 4306, 6.2] Federally Enforceable Through Title V Permit
76. Steam Generator Source Testing Condition: Stack gas moisture shall be determined using EPA Method 4. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit
77. Steam Generator Source Testing Condition: Stack gas velocity shall be determined using EPA Method 2. [District Rules 4305, 6.2 and 4306, 6.2] Federally Enforceable Through Title V Permit
78. Steam Generator Periodic Monitoring Condition: 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, 5.4.2 and 4306, 5.4.2] Federally Enforceable Through Title V Permit
79. Steam Generator Periodic Monitoring Condition: 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, 5.4.2 and 4306, 5.4.2] Federally Enforceable Through Title V Permit
80. Steam Generator Periodic Monitoring Condition: 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, 5.4.2 and 5.5.4 and 4306, 5.4.2 and 5.5.4] Federally Enforceable Through Title V Permit

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81. **Steam Generator Periodic Monitoring Condition:** 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, 5.4.2 and 4306, 5.4.2] Federally Enforceable Through Title V Permit
82. **Heavy Oil Tank Inspection and Maintenance:** Flanges shall be monitored with portable hydrocarbon detection instrument along the entire circumference of the flange-gasket interface. Threaded connections, tubing fittings, and other types of non-permanent joints shall be monitored along the entire circumference of joint interface. [District NSR Rule] Federally Enforceable Through Title V Permit
83. **Heavy Oil Tank Inspection and Maintenance:** All other components such as diaphragms, dump arms, instruments, meters shall be monitored at all points of possible emissions. [District NSR Rule] Federally Enforceable Through Title V Permit
84. **Heavy Oil Tank Inspection and Maintenance:** In addition to the requirements above, pressure relief devices shall be inspected and monitored for leaks within 3 days of any known, likely, or suspected venting of such devices. [District NSR Rule] Federally Enforceable Through Title V Permit
85. **Heavy Oil Tank Inspection and Maintenance:** Portable hydrocarbon detection instrument shall be operated and calibrated in accordance with recommendations in CAPCOA California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities (Feb 1999). [District NSR Rule] Federally Enforceable Through Title V Permit
86. **Heavy Oil Tank Inspection and Maintenance:** Valves shall be monitored with portable hydrocarbon detection instrument where the stem comes through the packing gland, and at any attached or connected body flange(s), bonnet flange(s), or plug(s). [District NSR Rule] Federally Enforceable Through Title V Permit
87. **Heavy Oil Tank Inspection and Maintenance:** All piping, fittings, and valves shall be inspected annually by the facility operator in accordance with EPA Method 21, with the instrument calibrated with methane, to ensure compliance with the provisions of this permit. If any of the tank components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If no tank components are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired at the next process unit turnaround (the scheduled shutdown of a unit for maintenance and repair work). [District Rule 2050, 9.3.2] Federally Enforceable Through Title V Permit
88. **Heavy Oil Tank Inspection and Maintenance:** Operator shall maintain an inspection log containing the following 1) Type of component leaking; 2) Date of leak detection, and method of detection; 3) Date and emission level of recheck after leak is repaired; 4) Identification and location of essential parts of critical process units found leaking that cannot be repaired until the next process unit turnaround; and 5) Method used to minimize the leak from essential parts of critical process units which cannot be repaired until the next process unit turnaround. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
89. **Heavy Oil Tank Inspection and Maintenance:** A facility operator, upon detection of a leaking component, shall affix to that component a weatherproof readily visible tag bearing the date on which the leak is detected. The tag shall remain in place until the leaking component is repaired, reinspected and found to be in compliance with the requirements of this rule. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
90. **Heavy Oil Tank Inspection and Maintenance:** An operator shall reinspect a component for leaks within thirty working days after the date on which the component is repaired. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

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91. Heavy Oil Tank Inspection and Maintenance: Any component leak shall be repaired to a leak-free condition or vented to a flare satisfying the requirements of 40 CFR 60.18 or to a vapor control device that is at least 95 percent efficient as measured by EPA Method 18 or 25 within fifteen (15) calendar days of detection. The APCO may grant a ten (10) calendar day extension provided the operator demonstrates that necessary and sufficient actions are being taken to correct the leak within this time period. Any vapor control device, other than a flare, used to comply with this condition shall demonstrate at least 95% control efficiency as measured by EPA Method 18 or 25 at least annually. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
92. Heavy Oil Tank Inspection and Maintenance: Emissions from components which have been tagged by the facility operator for repair within 15 calendar days or which have been repaired and are awaiting re-inspection shall not be in violation of this permit. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
93. Heavy Oil Tank Inspection and Maintenance: If the leaking component is an essential part of a critical process unit which cannot be immediately shut down for repairs, the operator shall 1) Minimize the leak within 15 calendar days; and 2) If the leak which has been minimized still exceeds the concentration allowed by this permit, the essential component shall be repaired to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection. A critical process unit is any process unit which would result in the automatic shutdown of other process units if it were shut down. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
94. Heavy Oil Tank Inspection and Maintenance: A leak free condition is defined as a condition without a gas leak. A gas leak is defined as a reading in excess of 10,000 ppmv, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. Emissions in excess of this limit shall be considered a leak. [District NSR Rule] Federally Enforceable Through Title V Permit
95. Heavy Oil Tank Cleaning Condition: Operator shall notify the District in writing at least 72 hours prior to performing tank degassing and interior tank cleaning activities. Written notification shall include the following information: (1) The PTO number and physical location of the tank being degassed, (2) The date and time that tank degassing and cleaning activities will begin, (3) The degassing method, as allowed in this permit, to be used, and (4) The method to be used to clean the tank, including any solvents to be used. [District Rule 2080] Federally Enforceable Through Title V Permit
96. Heavy Oil Tank Cleaning Condition: To facilitate connection to an external APCO-approved vapor recovery system a suitable tank fitting, such as a manway, may be temporarily removed for a period of time not to exceed 1 hour. [District Rule 2080] Federally Enforceable Through Title V Permit
97. Heavy Oil Tank Cleaning Condition: During degassing, the operator shall discharge or displace organic vapors contained in the tank vapor space to an APCO-approved vapor recovery system that is leak-free and achieves at least 95% control of inlet VOC emissions. [District Rule 2080] Federally Enforceable Through Title V Permit
98. Heavy Oil Tank Cleaning Condition: Permittee shall conduct tank cleaning and maintenance operations in accordance with District approved procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
99. Heavy Oil Tank Cleaning Condition: When storing organic liquid of TVP less than 0.5 psia, prior to returning the tank to normal operation, the tank vapor control system shall either be reactivated and the pressure/relief valves closed, or the tank shall be filled to the maximum possible level with water or a liquid with a TVP less than 0.5 psia and the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall then be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit

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100. Heavy Oil Tank Cleaning Condition: Prior to opening the tank to allow tank cleaning, one of the following degassing procedures must be followed: 1) Exhaust VOCs contained in the tank vapor space to an APCO-approved vapor recovery system until the organic vapor concentration is 5,000 ppmv or less, or is 10 percent or less of the lower explosion limit (LEL), whichever is less; or 2) Displace VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable liquid until 90 percent or more of the maximum operating level of the tank is filled. Suitable liquids are organic liquids having a TVP of less than 0.5 psia, water, clean produced water, or produced water derived from crude oil having a TVP less than 0.5 psia; or 3) Displace VOCs contained in the tank vapor space to an APCO-approved vapor recovery system by filling the tank with a suitable gas. Degassing shall continue until the operator has achieved a vapor displacement equivalent to at least 2.3 times the tank capacity. Suitable gases are air, nitrogen, carbon dioxide, or natural gas containing less than 10 percent VOC by weight; 4) For free-water knockout tanks, the operator may degas the tank vapor space by restricting the outflow of water and floating off the oilpad, such that at least 90 percent of the tank volume is displaced; or 5) operate the vapor recovery system for at least 24 hours after all the liquid in the tank has been drained. [District Rule 2080] Federally Enforceable Through Title V Permit
101. Heavy Oil Tank Cleaning Condition: Prior to reintroducing crude oil/water to the tank, the tank shall be filled to the maximum possible level with water, the tank vapor control system shall be reactivated and pressure/relief valves closed, and the liquid level shall be adjusted as necessary. [District Rule 2080] Federally Enforceable Through Title V Permit
102. Heavy Oil Tank Cleaning Condition: Steam cleaning shall be allowed only during December through March, or at locations where wastewater treatment facilities are limited. [District Rule 2080] Federally Enforceable Through Title V Permit
103. Heavy Oil Tank Cleaning Condition: Tank may be disconnected from vapor control system during District approved cleaning and maintenance procedures as described in this permit. [District Rule 2080] Federally Enforceable Through Title V Permit
104. Heavy Oil Tank Cleaning Condition: This permit authorizes tank cleaning that is not the result of breakdowns or poor maintenance as a routine maintenance activity. [District Rule 2080] Federally Enforceable Through Title V Permit
105. Heavy Oil Tank Cleaning Condition: While performing tank cleaning activities, operators may use the following cleaning agents: clean (produced) water, diesel, solvents with an initial boiling point of greater than 302°F, solvents with a vapor pressure of less than 0.5 psia, or solvents with 50 grams per liter VOC content or less. The tank sediment may be used for road mix as allowed by Section 6.17 of District Rule 2020. [District Rule 2080] Federally Enforceable Through Title V Permit
106. Heavy Oil Tank Cleaning Condition: Within 48 hours after refilling the tank with crude oil/water, the pressure relief valve seats and hatch seals shall be inspected for leaks using EPA method 21 and the regular tank maintenance and inspection program shall resume. [District Rule 2080] Federally Enforceable Through Title V Permit
107. Heavy Oil Tank Testing Condition: Permittee shall submit the records of TVP and API gravity testing to the APCO within 45 days after the date of testing. The records shall include the tank identification number, Permit to Operate number, type of stored organic liquid, TVP and API gravity of the organic liquid, test methods used, and a copy of the test results. [District Rule 4623, 6.3.6] Federally Enforceable Through Title V Permit
108. Heavy Oil Tank Testing Condition: Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid stored in this tank, or representative tank as provided in District Rule 4623, at least once every 24 months during summer (July - September), and/or whenever there is a change in the source or type of organic liquid stored in this tank in order to maintain exemption from the rule. [District Rule 4623, 6.2.1.1] Federally Enforceable Through Title V Permit
109. Heavy Oil Tank Testing Condition: Operator shall conduct quarterly sampling from the tank vapor recovery system to qualify for exemption from fugitive component counts for components handling fluids with less than 10% VOC by weight. If fluids sampled are less than 10% VOC by weight for 8 consecutive quarterly samplings, sampling frequency shall only be required annually. Such sampling is deemed representative of all components downstream of the equipment served by the vapor control system. [District NSR Rule] Federally Enforceable Through Title V Permit

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110. Heavy Oil Tank Testing Condition: VOC content of vapor shall be determined by ASTM D1945, ASTM D1946, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District NSR Rule] Federally Enforceable Through Title V Permit
111. Heavy Oil Tank Testing Condition: The API gravity of crude oil or petroleum distillate shall be determined by using ASTM method D 287-92 "Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method)". Sampling for API gravity shall be performed in accordance with ASTM Method D-4057-95 "Standard Practices for manual Sampling of Petroleum and Petroleum Products". [District Rule 4623, 6.4.2] Federally Enforceable Through Title V Permit
112. Heavy Oil Tank Testing Condition: For crude oil with an API gravity of 26 degrees or less, the TVP shall be determined using the latest version of the Lawrence Berkeley National Laboratory " Test Method for Vapor Pressure of Reactive Organic Compounds in Heavy Crude Oil Using Gas Chromatograph", as approved by ARB and EPA. [District Rule 4623, 6.4.4] Federally Enforceable Through Title V Permit
113. Heavy Oil Tank Testing Condition: Instead of testing each uncontrolled fixed roof tank, the permittee may conduct a TVP test of the organic liquid stored in a representative tank provided the requirements of Sections 6.2.1.1.1 through 6.2.1.1.5 of Rule 4623 are met. [District Rule 4623, 6.2.1.1]
114. Heavy Oil Tank Testing Condition: The TVP testing shall be conducted at actual storage temperature of the organic liquid in the tank. The permittee shall also conduct API gravity testing. [District Rule 4623, 6.2.1.2] Federally Enforceable Through Title V Permit
115. Heavy Oil Tank Testing Condition: The permittee shall keep accurate records of vapor VOC concentration, API gravity, true vapor pressure, storage temperature and types of liquids stored. [District NSR Rule and District Rule 4623, 6.3] Federally Enforceable Through Title V Permit
116. Casing Collection System Conditions: The crude oil production from wells associated with this permit unit shall not lie within 1000 feet of an air injection well used for in-situ combustion. [District Rule 4401, 2.0, 3.4, and 3.5] Federally Enforceable Through Title V Permit
117. Casing Collection System Condition: The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system. The well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. The steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system. [District Rule 4401, 5.1] Federally Enforceable Through Title V Permit
118. Casing Collection System Conditions: Permittee shall install and maintain an APCO-approved VOC collection and control system that is not open to the atmosphere and that is composed of hard-piping, ductwork connections and, if necessary, flow inducing devices that transport gas or vapor from a piece or pieces of equipment to an APCO-approved control device that has a VOC destruction or removal efficiency of at least 99%, or that transports gases or vapors back to a process system. [District Rules 2201 and 4401, 5.1] Federally Enforceable Through Title V Permit
119. Casing Collection System Conditions: During the time any steam-enhanced crude oil production well is undergoing service or repair while the well is not producing, it shall be exempt from the emission control requirements of District Rule 4401, 5.0. [District Rule 4401, 4.1] Federally Enforceable Through Title V Permit
120. Casing Collection System Conditions: The permittee shall not use any components that leak in excess of the applicable leak standards as specified in this permit. Components that have been found leaking in excess of the applicable leak standards of this rule may be used provided such leaking components have been identified with a tag for repair, are repaired, or are awaiting re-inspection after being repaired, within the applicable time period specified in this permit. [District Rule 4401, 5.3.1] Federally Enforceable Through Title V Permit
121. Casing Collection System Conditions: Permittee shall maintain a copy of the latest APCO-approved Operator Management Plan (OMP) at the facility and make it available to the APCO, ARB, and US EPA upon request. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

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122. Casing Collection System Conditions: By January 30 of each year, permittee shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved OMP. [District Rule 4401, 6.7] Federally Enforceable Through Title V Permit
123. Casing Collection System Conditions: In accordance with the approved OMP, permittee shall meet all applicable operating, leak standards, inspection and re-inspection, leak repair, record keeping, and notification requirements of Rule 4401. [District Rule 4401, 6.6] Federally Enforceable Through Title V Permit
124. Casing Collection System Conditions: A gas leak is defined as the detection of a concentration of total organic compounds, above background (measured in accordance with EPA Method 21) that exceeds the following values: 1) A major gas leak is a detection of greater than 10,000 ppmv as methane; and 2) A minor gas leak is a detection of 400 to 10,000 ppmv as methane for pressure relief devices (PRDs) and 2,000 to 10,000 for components other than PRDs. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit
125. Casing Collection System Conditions: A liquid leak is defined as the dripping of VOC-containing liquid. A major liquid leak is a visible mist or a continuous flow of liquid that is not seal lubricant. A minor liquid leak is a liquid leak that is not a major liquid leak and drips liquid at a rate of more than three drops per minute, except for seal lubricant. [District Rule 4401, 3.20] Federally Enforceable Through Title V Permit
126. Casing Collection System Conditions: During District compliance inspection, the following conditions shall be used to determination of a violation: 1) Existence of an open-ended line or a valve located at the end of the line that is not sealed with a blind flange, plug, cap, or a second closed valve that is not closed at all times, except during attended operations requiring process fluid flow through the open-ended lines. Attended operations include draining or degassing operations, connection of temporary process equipment, sampling of process streams, emergency venting, and other normal operational needs, provided such operations are done as expeditiously as possible and with minimal spillage of material and VOC emissions to the atmosphere; 2) Existence of a component with a major liquid leak; 3) Existence of a component with a gas leak greater than 50,000 ppmv; or 4) Existence of a component leak consisting of a minor liquid or gas leak, or a gas leak greater than 10,000 ppmv up to 50,000 ppmv, in excess of the allowable number of leaks specified in Table 2 of Rule 4401. [District Rule 4401, 5.2.2] Federally Enforceable Through Title V Permit
127. Casing Collection System Conditions: Permittee shall keep all hatches closed at all times except during sampling or adding of process material through the hatch, or during attended repair, replacement, or maintenance operations, provided such activities are done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere. [District Rule 4401, 5.3.2] Federally Enforceable Through Title V Permit
128. Casing Collection System Conditions: Except for pipes and unsafe-to-monitor components, permittee shall visually inspect all pipes at least once every year. Any visual inspection of pipes that indicates a leak that cannot be immediately repaired to meet the leak standards of Rule 4401 shall be inspected within 24 hours after detecting the leak. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4.1 & 5.4.2] Federally Enforceable Through Title V Permit
129. Casing Collection System Conditions: Permittee shall inspect all unsafe-to-monitor components during each turnaround. [District Rule 4401, 5.4.7] Federally Enforceable Through Title V Permit
130. Casing Collection System Conditions: Permittee shall inspect audio-visually (by hearing and by sight) for leaks all accessible operating pumps, compressors, and pressure relief devices (PRDs) in service at least once each calendar week. [District Rule 4401, 5.4.3.1] Federally Enforceable Through Title V Permit
131. Casing Collection System Conditions: Any audio-visual inspection of an accessible operating pump, compressor, and PRD performed by an operator that indicates a leak that cannot be immediately repaired to meet the leak standards of Rule 4401 shall be inspected not later than 24 hours after conducting the audio-visual inspection. If a leak is found, the leak shall be repaired as soon as practicable but not later than the time frame specified in Table 3 of Rule 4401. [District Rule 4401, 5.4.3.2] Federally Enforceable Through Title V Permit
132. Casing Collection System Conditions: Permittee shall initially inspect a PRD that releases to the atmosphere as soon as practicable but not later than 24 hours after the discovery of the release. Permittee shall re-inspect the PRD not earlier than 24 hours after the initial inspection but not later than 15 calendar days after the initial inspection. [District Rule 4401, 5.4.4.1] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

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

133. Casing Collection System Condition: Permittee shall inspect all new, replaced, or repaired fittings, flanges, and threaded connections within 72 hours of placing the component in service. [District Rule 4401, 5.4.4.2] Federally Enforceable Through Title V Permit
134. Casing Collection System Conditions: Except for PRDs, permittee shall inspect a component that has been repaired or replaced not later than 15 calendar days after the component was repaired or replaced. [District Rule 4401, 5.4.4.3] Federally Enforceable Through Title V Permit
135. Casing Collection System Conditions: Permittee shall affix a readily visible weatherproof tag to a leaking component upon detection of the leak. The following information shall be included on the tag: 1) the date and time of leak detection; 2) the date and time of leak measurement; 3) leak concentration in ppmv for a gaseous leak; 4) description of whether it is a major liquid leak or a minor liquid leak; and 5) whether the component is an essential component, an unsafe-to-monitor component, or a critical component. [District Rule 4401, 5.5.1] Federally Enforceable Through Title V Permit
136. Casing Collection System Conditions: Permittee shall keep the tag affixed to the component until all of the following conditions have been met: 1) the leaking component has been repaired or replaced, and 2) the component has been re-inspected using the test methods described in this permit; and 3) the component is found to be in compliance with the requirements of Rule 4401. [District Rule 4401, 5.5.2] Federally Enforceable Through Title V Permit
137. Casing Collection System Conditions: Permittee shall minimize a component leak in order to stop or reduce leakage to the atmosphere immediately to the extent possible, but not later than one (1) hour after detection of the leak. [District Rule 4401, 5.5.3] Federally Enforceable Through Title V Permit
138. Casing Collection System Conditions: Except for leaking critical components or leaking essential components, if the operator has minimized a leak but the leak still exceeds the applicable leak limits, the operator shall comply with at least one of the following requirements as soon as practicable but not later than the time period specified in Table 3 of Rule 4401: 1) repair or replace the leaking component; 2) vent the leaking component to a VOC collection and control system; or 3) remove the leaking component from operation. [District Rule 4401, 5.5.4] Federally Enforceable Through Title V Permit
139. Casing Collection System Conditions: The leak rate, measured after leak minimization has been performed, shall be used to determine the applicable repair period specified in Table 4 of Rule 4401 and the time of initial leak detection shall be the start of the repair period specified in Table 3 of Rule 4401. [District Rule 4401, 5.5.5] Federally Enforceable Through Title V Permit
140. Casing Collection System Conditions: If the leaking component is an essential component or a critical component that cannot be immediately shut down for repairs, and if the leak has been minimized but the leak still exceeds the applicable leak standard of this rule, the operator shall repair or replace the essential component or critical component to eliminate the leak during the next process unit turnaround, but in no case later than one year from the date of the original leak detection, whichever comes earlier. [District Rule 4401, 5.5.7] Federally Enforceable Through Title V Permit

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

141. Casing Collection System Conditions: Permittee shall maintain an inspection log in which, at a minimum, all of the following information shall be recorded for each inspection performed: 1) The total number of components inspected, and the total number and percentage of leaking components found by component type; 2) The location, type, and name or description of each leaking component and description of any unit where the leaking component is found; 3) The date of leak detection and the method of leak detection; 4) For gaseous leaks, the leak concentration in ppmv, and for liquid leaks record whether the leak is a major liquid leak or a minor liquid leak; 5) The date of repair, replacement, or removal from operation of leaking components; 6) The identify and location of essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; 7) The methods used to minimize the leak from essential components and critical components found leaking that cannot be repaired until the next process unit turnaround or not later than one year after leak detection, whichever comes earlier; 8) The date of re-inspection and the leak concentration in ppmv after the component is repaired or is replaced; 9) The inspector's name, business mailing address, and business telephone number; and 10) The date and signature of the facility operator responsible for the inspection and repair program certifying the accuracy of the information recorded in the log. [District Rule 4401, 6.4] Federally Enforceable Through Title V Permit
142. Casing Collection System Conditions: Permittee shall perform leak inspections at least annually, using a portable hydrocarbon detection instrument in accordance with USEPA Method 21. Where safety is a concern, such as measuring leaks from compressor seals or pump seals when the shaft is rotating, a person shall measure leaks by placing the instrument probe inlet at a distance of one centimeter or less from the surface of the component interface. [District Rule 4401, 6.3.3] Federally Enforceable Through Title V Permit
143. Casing Collection System Conditions: Annual control efficiency compliance tests shall be performed by source testers certified by the California Air Resource Board (CARB) on all vapor collection and control systems used to control emissions from steam-enhanced crude oil production wells. Testing shall be performed during June, July, August, or September of each year if the system's control efficiency is dependent upon ambient air temperature. The APCO may waive these source testing requirements if the vapor control system does not exhaust to atmosphere, or if all uncondensed VOC emissions collected by the vapor collection and control system are incinerated in fuel burning equipment, an internal combustion engine, or in a smokeless flare. [District Rule 4401, 6.2.1 & 6.2.2] Federally Enforceable Through Title V Permit
144. Casing Collection System Conditions: The control efficiency of any VOC control device, measured and calculated as carbon, shall be determined by EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case EPA Method 25a may be used. EPA Method 18 may be used in lieu of EPA Method 25 or EPA Method 25a provided the identity and approximate concentrations of the analytes/compounds in the sample gas stream are known before analysis with the gas chromatograph and the gas chromatograph is calibrated for each of those known analyte/compound to ensure that the VOC concentrations are neither under- or over-reported. [District Rule 4401, 6.3.1] Federally Enforceable Through Title V Permit
145. Casing Collection System Conditions: VOC content shall be determined using ASTM Method E168, E169, or E260 as applicable. Halogenated exempt compounds shall be determined by ARB Method 432. [District Rule 4401, 6.3.2] Federally Enforceable Through Title V Permit
146. Casing Collection System Conditions: VOC content by weight percent (wt.%) shall be determined using American Society of Testing and Materials (ASTM) D1945 for gases and South Coast Air Quality Management District (SCAQMD) Method 304-91 or the latest revision of ASTM Method E168, E169 or E260 for liquids. [District Rule 4401, 6.3.4] Federally Enforceable Through Title V Permit
147. Casing Collection System Conditions: Permittee shall establish and implement an employee training program for inspecting and repairing components and recordkeeping procedures, as necessary. Permittee shall maintain at the facility the copies of the training records of the training program. [District Rule 4401, 6.1.6 & 6.5] Federally Enforceable Through Title V Permit
148. Casing Collection System Conditions: Unless the source testing requirement is waived by the District, permittee shall maintain source test records which show that the control efficiency requirements of the VOC collection and control system have been satisfied. [District Rule 4401, 6.1] Federally Enforceable Through Title V Permit

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

149. Casing Collection System Conditions: Permittee shall maintain monitoring records of the date and well identification where steam injection or well stimulation occurs. [District Rule 4401, 6.1.1] Federally Enforceable Through Title V Permit
150. Casing Collection System Conditions: Records shall be maintained of each calibration of the portable hydrocarbon detection instrument utilized for inspecting components. The records shall include a copy of the current calibration gas certification from the vendor of the calibration gas cylinder, the date of calibration, the concentration of calibration gas, the instrument reading of calibration gas before adjustment, the instrument reading of calibration gas after adjustment, the calibration gas expiration date, and the calibration gas cylinder pressure at the time of calibration. [District Rule 4401, 6.1.5] Federally Enforceable Through Title V Permit
151. Emergency Standby IC Engine Condition: Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit
152. Emergency Standby IC Engine Condition: This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 5.7.4 and 17 CCR 93115] Federally Enforceable Through Title V Permit
153. Emergency Standby IC Engine Condition: This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702, 5.7.2] Federally Enforceable Through Title V Permit
154. Emergency Standby IC Engine Condition: Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District Rules 2201 and 4801 and 17 CCR 93115] Federally Enforceable Through Title V Permit
155. Emergency Standby IC Engine Condition: During periods of operation for maintenance, testing, and required regulatory purposes, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702, 5.7.3] Federally Enforceable Through Title V Permit
156. Emergency Standby IC Engine Condition: The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.), and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rules 4702, 5.7 and 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit
157. Emergency Standby IC Engine Condition: The permittee shall maintain monthly records of the type of fuel purchased, the amount of fuel purchased, date when the fuel was purchased, signature of the permittee who received the fuel, and signature of the fuel supplier indicating that the fuel was delivered. [District Rule 2520, 9.4.2 and 17 CCR 93115] Federally Enforceable Through Title V Permit

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-1141-549-11

**EXPIRATION DATE:** 02/29/2016

**SECTION:** NW17 **TOWNSHIP:** 32S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**

62.5 MMBTU/HR NATURAL/TEOR/TVC GAS-FIRED STRUTHERS STEEL STEAM GENERATOR WITH A NORTH AMERICAN MAGNA-FLAME GLE ULTRA LOW-NOX BURNER, WITH AN O2 ANALYZER/CONTROLLER AND FLUE GAS RECIRCULATION (FGR) SYSTEM WITH VARIABLE SPEED INTAKE AIR BLOWER, ORIFICE PLATE(S), AND ELECTRONIC CONTROLS (NATIONAL BOARD #1026)

## PERMIT UNIT REQUIREMENTS

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See facility-wide requirements for permit conditions applicable to this permit unit.

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-1141-550-9

**EXPIRATION DATE:** 02/29/2016

**SECTION:** NW17 **TOWNSHIP:** 32S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**

62.5 MMBTU/HR NATURAL/TEOR/TVC GAS-FIRED SMITH MOON STEEL STEAM GENERATOR WITH A NORTH AMERICAN MAGNA-FLAME GLE ULTRA-LOW NOX BURNER WITH AN O2 ANALYZER/CONTROLLER AND FGR WITH VARIABLE SPEED INTAKE AIR BLOWER, ORIFICE PLATE(S), AND ELECTRONIC CONTROLS (NATIONAL BOARD #879)

## PERMIT UNIT REQUIREMENTS

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See facility-wide requirements for permit conditions applicable to this permit unit.

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

**San Joaquin Valley  
Air Pollution Control District**

**PERMIT UNIT:** S-1141-551-8

**EXPIRATION DATE:** 02/29/2016

**SECTION:** NW17 **TOWNSHIP:** 32S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**

62.5 MMBTU/HR NATURAL/TEOR/TVC GAS FIRED CE NATCO STEAM GENERATOR (NATIONAL BOARD #2369)  
WITH A NORTH AMERICAN MODEL MAGNA-FLAME GLE ULTRA LOW NOX BURNER, AN O2 CONTROLLER, AND A  
FLUE GAS RECIRCULATION SYSTEM

**PERMIT UNIT REQUIREMENTS**

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See facility-wide requirements for permit conditions applicable to this permit unit.

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-1141-552-8

**EXPIRATION DATE:** 02/29/2016

**SECTION:** NW17 **TOWNSHIP:** 32S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**

62.5 MMBTU/HR NATURAL/TEOR/TVC GAS FIRED CE NATCO STEAM GENERATOR (NATIONAL BOARD #192) WITH NORTH AMERICAN MAGNA-FLAME GLE ULTRA-LOW NOX BURNER, O2 CONTROLLER, AND FGR

## PERMIT UNIT REQUIREMENTS

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See facility-wide requirements for permit conditions applicable to this permit unit.

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-1141-553-8

**EXPIRATION DATE:** 02/29/2016

**SECTION:** NW17 **TOWNSHIP:** 32S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**

62.5 MMBTU/HR NATURAL/TEOR/TVC GAS FIRED SMITH MOON STEEL STEAM GENERATOR (NATIONAL BOARD #552) WITH NORTH AMERICAN GLE MAGNA FLAME LOW NOX BURNER, O2 ANALYZER/CONTROLLER, AND FGR WITH VARIABLE SPEED INTAKE AIR BLOWER, ORIFICE PLATE(S), AND ELECTRONIC CONTROLS

## **PERMIT UNIT REQUIREMENTS**

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See facility-wide requirements for permit conditions applicable to this permit unit.

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

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1141-555-12

EXPIRATION DATE: 02/29/2016

SECTION: NW17 TOWNSHIP: 32S RANGE: 23E

## EQUIPMENT DESCRIPTION:

62.5 MMBTU/HR NATURAL/TEOR/TVC GAS FIRED SMITH MOON STEEL STEAM GENERATOR (NATIONAL BOARD #7953) WITH NORTH AMERICAN MAGNA-FLAME GLE ULTRA-LOW NOX BURNER, O2 CONTROLLER, FGR AND SO2 SCRUBBER SHARED WITH '-556 AND '-557

## PERMIT UNIT REQUIREMENTS

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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 Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. This Authority to Construct shall be implemented according to the date proposed in the District-approved Rule 4320 Emission Control Plan. [District Rule 4320]
4. Exhaust from unit shall be directed to SOx scrubber authorized herein except when unit is combusting only PUC quality natural gas with a sulfur content not exceeding 1.0 gr S/100scf. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Scrubber control efficiency shall be maintained at least 95% by weight sulfur compounds or greater, or SO2 concentration at the stack gas outlet that shall not exceed 9 ppmvd corrected to 3% O2. [District Rule 2201] Federally Enforceable Through Title V Permit
6. 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
7. Daily average pH of scrubber liquor (calculated from hourly averages) shall be maintained between 6 and 8, and shall be continuously monitored. [District NSR Rule] Federally Enforceable Through Title V Permit
8. SO2 scrubber exhaust shall be vented to operational Brinks mist eliminator prior to being exhausted to atmosphere when total H2S loading to any one of the steam generators exceeds 1.24 lb/min for an aggregate of three or more minutes in any one hour period. H2S concentration of the TEOR gas shall be determined and entered into the generator fuel throughput processor weekly using gas detection tubes to determine H2S concentration. The H2S loading shall be calculated using the generator actual fuel volumetric flow rate and H2S concentration of the TEOR and fuel gas. [District Rules 2201 and 4101] Federally Enforceable Through Title V Permit
9. Fuel H2S, total sulfur, and methane content shall be determined semi-annually using the following test methods H2S: ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, double GC for H2S and mercaptans or ASTM D6228; and methane content: ASTM D1945. [District Rule 4320]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE  
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10. Each fuel source shall be tested semi-annually for sulfur content and higher heating value. If a fuel content test fails to show compliance, weekly testing is required until compliance is demonstrated for 8 consecutive weeks, after which semi-annual testing may resume. [District Rules 2520, 9.3.2 and 4320, 5.7.6] Federally Enforceable Through Title V Permit
11. If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value. [District Rules 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit
12. If the unit is not fired on PUC-regulated natural gas and compliance is achieved through fuel sulfur content limitations, then the sulfur content of the fuel shall be determined by testing sulfur content at a location after all fuel sources are combined prior to incineration, or by performing mass balance calculations based on monitoring the sulfur content and volume of each fuel source. The sulfur content of the fuel shall be determined using the test methods referenced in this permit. [District Rules 2520, 9.3.2 and 4320, 5.7.6] Federally Enforceable Through Title V Permit
13. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by: ASTM D 1826 or D1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 2520, 9.4.2, 4305, 6.2.1 and 4320] Federally Enforceable Through Title V Permit
14. Scrubber mist eliminator shall be properly cleaned and maintained. [District NSR Rule] Federally Enforceable Through Title V Permit
15. Exhaust gas stack shall be equipped with adequate provisions facilitating the collection of gas samples consistent with EPA Test Methods. [District NSR Rule and District Rule 1081] Federally Enforceable Through Title V Permit
16. Flue gas recirculation system may be designed such that ambient air may be drawn into flue gas recirculation piping. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Annual combined emissions of PM10 from units '-555, '-556, and '-557 shall not exceed 115,687 lb/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Permittee shall demonstrate compliance with the annual PM10 combined emission limit for units '-555, '-556, and '-557 by calculation using the amount of fuel combusted, and either the results from the latest source test or the permitted emission factor if there is no PM10 source test data. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Emission rates shall not exceed any of the following: PM10: 109.5 lb/day, SOx: 94.5 lb/day, NOx (as NO2): 54.0 lb/day and 9855 lb/year, VOC: 9.0 lb/day, CO: 41.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Emission rates shall not exceed any of the following: PM10: 0.073 lb/MMBtu, SOx (as SO2): 0.063 lb/MMBtu or 9 ppmv @ 3% O2, or VOC: 0.006 lb/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
21. Except during periods of startup and shutdown, emission rates shall not exceed any of the following: NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 37 ppmv @ 3% O2 or 0.0273 lb/MMBtu. [District Rules 2201, 4305, 4306 or 4320] Federally Enforceable Through Title V Permit
22. During start-up and shutdown periods, emissions from the steam generator shall not exceed the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
23. Duration of start-up or shutdown shall not exceed 2 hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain records of the duration of each start-up and shutdown periods. [District Rules 4306 and 4320]

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

24. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken 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 4320]
25. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
26. Compliance with NO<sub>x</sub>, CO and PM<sub>10</sub> emissions limits (lb/MM Btu or ppmv) shall be demonstrated by source testing, at startup and at least once every twelve (12) months thereafter. 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 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
27. If required, compliance with the scrubber control efficiency requirement shall be demonstrated within 60 days of startup and at least once every twelve (12) months thereafter. [District Rule 2201]
28. 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
29. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
30. 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 ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, stack gas velocities - EPA Method 2, stack gas moisture content - EPA Method 4, and PM<sub>10</sub> (lb/scf)-EPA Methods 5, 201A, and 202. [District Rules 1081, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
31. Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit
32. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
33. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
34. The 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, 4306 and 4320] Federally Enforceable Through Title V Permit

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

35. 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, 4306 and 4320] Federally Enforceable Through Title V Permit
36. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
37. 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, 4306 and 4320] Federally Enforceable Through Title V Permit
38. Permittee shall pave and maintain with asphalt no less than 0.45 miles of roadway. The 0.45 miles of roadways constructed are in addition to new roadways associated with other steam injection and oil production well projects. [District NSR Rule] Federally Enforceable Through Title V Permit
39. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
40. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Amended December 16, 1993). [District Rule 1081, and Kern County Rule 108.1] Federally Enforceable Through Title V Permit
41. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
42. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
43. Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO<sub>2</sub>, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
44. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO<sub>2</sub>. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit

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

45. When complying with SO<sub>x</sub> emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8 or ARB Method 1-100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD or double GC performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
46. Nitrogen oxide (NO<sub>x</sub>) emissions shall not exceed 140 lb/hr, calculated as NO<sub>2</sub>. [District Rules 4301, 5.2.2 and 2520, 9.3.2] Federally Enforceable Through Title V Permit
47. Permittee shall maintain with the permit a current listing of all TEOR and TVC gas systems providing vapors to this steam generator and shall make such listing readily available for District inspection upon request [District NSR Rule] Federally Enforceable Through Title V Permit
48. Permittee shall maintain records of H<sub>2</sub>S loading (lb H<sub>2</sub>S/min) and dates and duration of Brinks Mist Eliminator operation and shall make such records readily available for District. [District Rule 2201] Federally Enforceable Through Title V Permit
49. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for 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]
50. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and Rule 4320]
51. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-1141-556-13

**EXPIRATION DATE:** 02/29/2016

**SECTION:** NW17 **TOWNSHIP:** 32S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**

62.5 MMBTU/HR NATURAL/TEOR/TVC GAS-FIRED SMITH MOON STEEL STEAM GENERATOR WITH A NORTH AMERICAN MAGNA-FLAME GLE ULTRA-LOW NOX BURNER WITH AN O2 ANALYZER/CONTROLLER AND FGR WITH VARIABLE SPEED INTAKE AIR BLOWER, ORIFICE PLATE(S), ELECTRONIC CONTROLS (NATIONAL BOARD #653), AND SO2 SCRUBBER SHARED WITH '-555 AND '-557

## **PERMIT UNIT REQUIREMENTS**

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See facility-wide requirements for permit conditions applicable to this permit unit.

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-1141-557-11

**EXPIRATION DATE:** 02/29/2016

**SECTION:** NW17 **TOWNSHIP:** 32S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**

62.5 MMBTU/HR NATURAL/TEOR/TVC GAS-FIRED C.E. NATCO STEAM GENERATOR WITH A NORTH AMERICAN MAGNA-FLAME GLE ULTRA LOW-NOX BURNER, WITH AN O2 ANALYZER/CONTROLLER AND FLUE GAS RECIRCULATION (FGR) SYSTEM WITH VARIABLE SPEED INTAKE AIR BLOWER, ORIFICE PLATE(S), ELECTRONIC CONTROLS (NATIONAL BOARD #9333, SMSP #8), AND SO2 SCRUBBER SHARED WITH '-555 AND '-556

## PERMIT UNIT REQUIREMENTS

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See facility-wide requirements for permit conditions applicable to this permit unit.

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-1141-558-9

**EXPIRATION DATE:** 02/29/2016

**SECTION:** NW17 **TOWNSHIP:** 32S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**

62.5 MMBTU/HR NATURAL/TEOR/TVC GAS FIRED CE NATCO STEAM GENERATOR (NATIONAL BOARD #2398)  
WITH A NORTH AMERICAN MAGNA-FLAME MODEL GLE ULTRA LOW NOX BURNER, FGR AND O2 CONTROLLER

## PERMIT UNIT REQUIREMENTS

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See facility-wide requirements for permit conditions applicable to this permit unit.

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

# **ATTACHMENT C**

**Authorities to Construct S-1141-549-11, -550-9,  
-551-8, -552-8, -553-8, -555-12, -556-13,  
-557-11, and -558-9**



## AUTHORITY TO CONSTRUCT

PERMIT NO: S-1141-549-11

ISSUANCE DATE: 07/21/2010

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

LOCATION: HEAVY OIL WESTERN STATIONARY SOURCE  
CA

SECTION: NW17 TOWNSHIP: 32S RANGE: 23E

### EQUIPMENT DESCRIPTION:

MODIFICATION OF 62.5 MMBTU/HR NATURAL/TEOR/TVC GAS-FIRED STRUTHERS STEEL STEAM GENERATOR WITH A NORTH AMERICAN MAGNA-FLAME GLE ULTRA LOW-NOX BURNER, WITH AN O2 ANALYZER/CONTROLLER AND FLUE GAS RECIRCULATION (FGR) SYSTEM WITH VARIABLE SPEED INTAKE AIR BLOWER, ORIFICE PLATE(S), AND ELECTRONIC CONTROLS (NATIONAL BOARD #1026): LIMIT FUEL GAS SULFUR CONTENT TO 5 GR-S/100 SCF OR REDUCE SOX BY 95% VIA SCRUBBING OR TO AN OUTLET CONCENTRATION NOT EXCEEDING 9 PPMVD @ 3% O2 FOR RULE 4320 COMPLIANCE

## CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District NSR Rule] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. This Authority to Construct shall be implemented according to the date proposed in the District-approved Rule 4320 Emission Control Plan. [District Rule 4320]
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
5. Fuel H2S, total sulfur, and methane content shall be determined semi-annually using the following test methods H2S: ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, double GC for H2S and mercaptans or ASTM D6228; and methane content: ASTM D1945. [District Rule 4320]

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services

S-1141-549-11 : Jul 22 2010 9:20AM -- GOUQHD : Joint Inspection NOT Required

6. Each fuel source shall be tested semi-annually for sulfur content and higher heating value. If a fuel content test fails to show compliance, weekly testing is required until compliance is demonstrated for 8 consecutive weeks, after which semi-annual testing may resume. [District Rules 2520, 9.3.2 and 4320, 5.7.6] Federally Enforceable Through Title V Permit
7. If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value. [District Rules 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit
8. If the unit is not fired on PUC-regulated natural gas and compliance is achieved through fuel sulfur content limitations, then the sulfur content of the fuel shall be determined by testing sulfur content at a location after all fuel sources are combined prior to incineration, or by performing mass balance calculations based on monitoring the sulfur content and volume of each fuel source. The sulfur content of the fuel shall be determined using the test methods referenced in this permit. [District Rules 2520, 9.3.2 and 4320, 5.7.6] Federally Enforceable Through Title V Permit
9. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by: ASTM D 1826 or D1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 2520, 9.4.2, 4305, 6.2.1 and 4320] Federally Enforceable Through Title V Permit
10. When combustion air orifice and flue gas recirculation orifice have been used to demonstrate compliance they shall not be changed without a District-witnessed compliance demonstration. [District NSR Rule] Federally Enforceable Through Title V Permit
11. Emissions from the steam generator shall not exceed any of the following limits: 0.126 lb-SO<sub>x</sub>/MMBtu, 0.096 lb-PM10/MMBtu, or 0.003 lb-VOC/MMBtu. [District Rule 2201 and 4320] Federally Enforceable Through Title V Permit
12. Except during start-up and shutdown periods emissions from the steam generator shall not exceed any of the following limits: 15 ppmvd 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 and 4320] Federally Enforceable Through Title V Permit
13. Fuel gas sulfur content shall not exceed 5 gr S/100 dscf unless SO<sub>x</sub> emissions are reduced by 95% or to 9 ppmv SO<sub>x</sub> @ 3% O<sub>2</sub> in the exhaust with scrubber. [District Rule 4320]
14. During start-up and shutdown periods, emissions from the steam generator shall not exceed 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
15. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 5.5.6, 4306, 5.3 and 4320] Federally Enforceable Through Title V Permit
16. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4306, 3.25 and 3.22] Federally Enforceable Through Title V Permit
17. 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] Federally Enforceable Through Title V Permit
18. Source testing to measure 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. Compliance with SO<sub>x</sub> emission limits shall be demonstrated within 60 days of initial operation under this ATC [District Rules 2201 and 4320]

CONDITIONS CONTINUE ON NEXT PAGE

20. 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
21. 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
22. 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
23. 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
24. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.4, 4306, 5.4 and 4320] Federally Enforceable Through Title V Permit
25. 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 ARB Method 100; Stack gas oxygen (O<sub>2</sub>) - EPA Method 3 or 3A or ARB Method 100; stack gas velocities - EPA Method 2; Stack gas moisture content - EPA Method 4; SO<sub>x</sub> - EPA Method 6C or 8 or ARB Method 100; fuel gas sulfur as H<sub>2</sub>S content - EPA Method 11 or 15; and fuel hhv (MMBtu) - ASTM D 1826 or D 1945 in conjunction with ASTM D 3588. [District Rules 1081, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
26. 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 required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit
28. 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
29. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5, 4306, 5.5.5 and 4320] Federally Enforceable Through Title V Permit
30. 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

CONDITIONS CONTINUE ON NEXT PAGE

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 and 4306, 6.1] Federally Enforceable Through Title V Permit
32. Permittee shall maintain with the permit a current listing of all TEOR and TVC gas systems providing vapors to this steam generator and shall make such listing readily available for District inspection upon request [District NSR Rule] Federally Enforceable Through Title V Permit
33. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for 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]
34. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and Rule 4320]
35. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1, 4306, 6.1 and 4320] Federally Enforceable Through Title V Permit



## AUTHORITY TO CONSTRUCT

PERMIT NO: S-1141-550-9

ISSUANCE DATE: 07/21/2010

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

LOCATION: HEAVY OIL WESTERN STATIONARY SOURCE  
CA

SECTION: NW17 TOWNSHIP: 32S RANGE: 23E

### EQUIPMENT DESCRIPTION:

MODIFICATION OF 62.5 MMBTU/HR NATURAL/TEOR/TVC GAS-FIRED SMITH MOON STEEL STEAM GENERATOR WITH A NORTH AMERICAN MAGNA-FLAME GLE ULTRA-LOW NOX BURNER WITH AN O2 ANALYZER/CONTROLLER AND FGR WITH VARIABLE SPEED INTAKE AIR BLOWER, ORIFICE PLATE(S), AND ELECTRONIC CONTROLS (NATIONAL BOARD #879): LIMIT FUEL GAS SULFUR CONTENT TO 5 GR-S/100 SCF OR REDUCE SOX BY 95% VIA SCRUBBING OR TO AN OUTLET CONCENTRATION NOT EXCEEDING 9 PPMVD @ 3% O2 FOR RULE 4320 COMPLIANCE

## CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District NSR Rule] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. This Authority to Construct shall be implemented according to the date proposed in the District-approved Rule 4320 Emission Control Plan. [District Rule 4320]
4. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
5. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

**YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (861) 392-5600 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.**

Seyed Sadredin, Executive Director / APCO

  
DAVID WARNER, Director of Permit Services

S-1141-550-9, Jul 22 2010 9:20AM - GDLG:HD : Job Inspection NOT Required

6. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
7. Fuel H<sub>2</sub>S, total sulfur, and methane content shall be determined semi-annually using the following test methods H<sub>2</sub>S: ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, double GC for H<sub>2</sub>S and mercaptans or ASTM D6228; and methane content: ASTM D1945. [District Rule 4320]
8. Each fuel source shall be tested semi-annually for sulfur content and higher heating value. If a fuel content test fails to show compliance, weekly testing is required until compliance is demonstrated for 8 consecutive weeks, after which semi-annual testing may resume. [District Rules 2520, 9.3.2 and 4320, 5.7.6] Federally Enforceable Through Title V Permit
9. If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value. [District Rules 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit
10. If the unit is not fired on PUC-regulated natural gas and compliance is achieved through fuel sulfur content limitations, then the sulfur content of the fuel shall be determined by testing sulfur content at a location after all fuel sources are combined prior to incineration, or by performing mass balance calculations based on monitoring the sulfur content and volume of each fuel source. The sulfur content of the fuel shall be determined using the test methods referenced in this permit. [District Rules 2520, 9.3.2 and 4320, 5.7.6] Federally Enforceable Through Title V Permit
11. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by: ASTM D 1826 or D1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 2520, 9.4.2 , 4305, 6.2.1 and 4320] Federally Enforceable Through Title V Permit
12. Flue gas recirculation system may be designed such that ambient air may be drawn into flue gas recirculation piping. [District Rule 2201]
13. When combustion air orifice and flue gas recirculation orifice have been used to demonstrate compliance they shall not be changed without a District-witnessed compliance demonstration. [District NSR Rule] Federally Enforceable Through Title V Permit
14. Emissions from the steam generator shall not exceed any of the following limits: 0.126 lb-SO<sub>x</sub>/MMBtu, 0.073 lb-PM<sub>10</sub>/MMBtu, or 0.003 lb-VOC/MMBtu. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
15. Except during start-up and shutdown periods emissions from the steam generator shall not exceed any of the following limits: 15 ppmvd 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 and 4320] Federally Enforceable Through Title V Permit
16. Fuel gas sulfur content shall not exceed 5 gr S/100 dscf unless SO<sub>x</sub> emissions are reduced by 95% or to 9 ppmv SO<sub>x</sub> @ 3% O<sub>2</sub> in the exhaust with scrubber. [District Rule 4320]
17. 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
18. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 5.5.6 and 4306, 5.3] Federally Enforceable Through Title V Permit
19. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4306, 3.25 and 3.22] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

20. Maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 54.0 lb-NOx/day, 9,965 lb-NOx/yr, 56.3 lb-CO/day, and 20,531 lb-CO/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Source testing to measure NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3.1 and 4306, 6.3.1] Federally Enforceable Through Title V Permit
22. Compliance with SOx emission limits shall be demonstrated within 60 days of initial operation under this ATC. [District Rules 2201 and 4320]
23. 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
24. 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
25. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4, 4306, 5.4 and 4320] Federally Enforceable Through Title V Permit
26. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4, 4306, 5.4 and 4320] Federally Enforceable Through Title V Permit
27. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 5.4, 4306, 5.4 and 4320] Federally Enforceable Through Title V Permit
28. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19; CO (ppmv) - EPA Method 10 or ARB Method 100; Stack gas oxygen (O2) - EPA Method 3 or 3A or ARB Method 100; stack gas velocities - EPA Method 2; Stack gas moisture content - EPA Method 4; SOx - EPA Method 6C or 8 or ARB Method 100; fuel gas sulfur as H2S content - EPA Method 11 or 15; and fuel hhv (MMBtu) - ASTM D 1826 or D 1945 in conjunction with ASTM D 3588. [District Rules 1081, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
29. 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
30. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

31. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 4305, 5.5.2, 4306, 5.5.2 and 4320] Federally Enforceable Through Title V Permit
32. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5, 4306, 5.5.5 and 4320] Federally Enforceable Through Title V Permit
33. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
34. 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 and 4306, 6.1] Federally Enforceable Through Title V Permit
35. Permittee shall maintain with the permit a current listing of all TEOR and TVC gas systems providing vapors to this steam generator and shall make such listing readily available for District inspection upon request [District NSR Rule] Federally Enforceable Through Title V Permit
36. 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]
37. 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]
38. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1, 4306, 6.1 and 4320] Federally Enforceable Through Title V Permit



## AUTHORITY TO CONSTRUCT

PERMIT NO: S-1141-551-8

ISSUANCE DATE: 07/21/2010

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

LOCATION: HEAVY OIL WESTERN STATIONARY SOURCE  
CA

SECTION: NW17 TOWNSHIP: 32S RANGE: 23E

### EQUIPMENT DESCRIPTION:

MODIFICATION OF 62.5 MMBTU/HR NATURAL/TEOR/TVC GAS FIRED CE NATCO STEAM GENERATOR (NATIONAL BOARD #2369) WITH A NORTH AMERICAN MODEL MAGNA-FLAME GLE ULTRA LOW NOX BURNER, AN O2 CONTROLLER, AND A FLUE GAS RECIRCULATION SYSTEM: LIMIT FUEL GAS SULFUR CONTENT TO 5 GR-S/100 SCF OR REDUCE SOX BY 95% VIA SCRUBBING OR TO AN OUTLET CONCENTRATION NOT EXCEEDING 9 PPMVD @ 3% O2 FOR RULE 4320 COMPLIANCE

## CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District NSR Rule] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. This Authority to Construct shall be implemented according to the date proposed in the District-approved Rule 4320 Emission Control Plan. [District Rule 4320]
4. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

### CONDITIONS CONTINUE ON NEXT PAGE

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

Sayed Sadredin, Executive Director / APCO



DAVID WARNER, Director of Permit Services

S-1141-551-8 - Jul 22 2010 9:20AM - DDJ/MD - Joint Inspection NOT Required

5. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
6. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
7. Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO<sub>2</sub>, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
8. Fuel H<sub>2</sub>S, total sulfur, and methane content shall be determined semi-annually using the following test methods H<sub>2</sub>S: ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, double GC for H<sub>2</sub>S and mercaptans or ASTM D6228; and methane content: ASTM D1945. [District Rule 4320]
9. Each fuel source shall be tested semi-annually for sulfur content and higher heating value. If a fuel content test fails to show compliance, weekly testing is required until compliance is demonstrated for 8 consecutive weeks, after which semi-annual testing may resume. [District Rules 2520, 9.3.2 and 4320, 5.7.6] Federally Enforceable Through Title V Permit
10. If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value. [District Rules 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit
11. If the unit is not fired on PUC-regulated natural gas and compliance is achieved through fuel sulfur content limitations, then the sulfur content of the fuel shall be determined by testing sulfur content at a location after all fuel sources are combined prior to incineration, or by performing mass balance calculations based on monitoring the sulfur content and volume of each fuel source. The sulfur content of the fuel shall be determined using the test methods referenced in this permit. [District Rules 2520, 9.3.2 and 4320, 5.7.6] Federally Enforceable Through Title V Permit
12. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by: ASTM D 1826 or D1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 2520, 9.4.2, 4305, 6.2.1 and 4320] Federally Enforceable Through Title V Permit
13. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
14. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, 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
15. This unit is located west of interstate 5 in Kern county. Therefore, the requirements of District Rule 4351 (Amended October 19, 1995) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
16. Exhaust gas stack shall be equipped with adequate provisions facilitating the collection of gas samples consistent with EPA Test Methods. [District Rules 1081 and District NSR Rule] Federally Enforceable Through Title V Permit
17. Flue gas recirculation system may be designed such that ambient air may be drawn into flue gas recirculation piping. [District NSR Rule] Federally Enforceable Through Title V Permit
18. When combustion air orifice and flue gas recirculation orifice have been used to demonstrate compliance they shall not be changed without a District-witnessed compliance demonstration. [District NSR Rule] Federally Enforceable Through Title V Permit
19. Permittee shall maintain records of duration of each start-up and shutdown, for a period of five years and make such records readily available for District inspection upon request. [District Rule 4306] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

20. Emission rates shall not exceed: PM10: 117.0 lb/day or 42,705 lb/year, SOx: 189 lb/day or 68,985 lb/year, NOx (as NO2): 54.0 lb/day or 9855 lb/year, VOC: 9.0 lb/day or 3285 lb/year, CO: 49.5 lb/day or 18,068 lb/year. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
21. Emission rates shall not exceed any of the following: PM10: 0.078 lb/MMBtu, SOx (as SO2) 0.126 lb/MMBtu, or VOC: 0.006 lb/MMBtu. [District NSR Rule and District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
22. Emission rates, except during startup and shutdown, shall not exceed any of the following: NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 45 ppmv @ 3% O2. [District NSR Rule and District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
23. Fuel gas sulfur content shall not exceed 5 gr S/100 dscf unless SOx emissions are reduced by 95% or to 9 ppmv SOx @ 3% O2 in the exhaust with scrubber. [District Rule 4320]
24. During start-up and shutdown periods, emissions from the steam generator shall not exceed the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
25. 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] Federally Enforceable Through Title V Permit
26. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rule 4306]
27. Permittee shall pave and maintain with asphalt no less than 0.45 miles of roadway. The 0.45 miles of roadways constructed are in addition to new roadways associated with other steam injection and oil production well projects [District NSR Rule] Federally Enforceable Through Title V Permit
28. Permittee shall maintain daily records of volume of natural gas burned, TEOR and TVC gas incinerated, and permit number(s) of systems providing gas for incineration and shall make the preceding five years records available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
29. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
30. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
31. Compliance with SOx emission limits shall be demonstrated within 60 days of initial operation under this ATC. [District Rules 2201 and 4320]
32. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
33. Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit
34. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
35. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

36. The following test methods shall be used: NOX (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19; CO (ppmv) - EPA Method 10 or ARB Method 100; Stack gas oxygen (O2) - EPA Method 3 or 3A or ARB Method 100; stack gas velocities - EPA Method 2; and Stack gas moisture content - EPA Method 4. [District Rules 1081, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
37. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
38. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
39. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
40. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
41. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
42. All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of this Authority to Construct 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 78-16] Federally Enforceable Through Title V Permit
43. The EPA Regional Administrator shall be notified by telephone, facsimile, or electronic mail transmission within two (2) working days 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 emission limit stated in the condition below. In addition, the Regional Administrator shall be notified in writing within fifteen (15) days of any such failure. The notification shall include a description of the malfunctioning equipment or abnormal operation, the date of the 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 condition below, and the methods utilized to mitigate emissions and 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 78-16] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

44. The EPA Regional Administrator, the head of the State Air Pollution Control Agency, the head of the responsible local Air Pollution Control Agency, and/or their authorized representative, upon the presentation of credentials, shall be permitted: A. to enter the premises where the source is located or where any records are required to be kept under the terms and conditions of this Authority to Construct; and B. at reasonable times to have access to and copy any records required to be kept under the terms and conditions of this Authority to Construct; and C. to inspect any equipment, operation, or method required in this Authority to Construct; and D. to sample emissions from the source(s). [PSD SJ 78-16] Federally Enforceable Through Title V Permit
45. In the event of any changes in control or ownership of the facilities to be constructed, the Authority to Construct shall be binding on all subsequent owners and operators. The applicant shall notify the succeeding owner and operator of the existence of this Authority to Construct and its conditions by letter, a copy of which shall be forwarded to the EPA Regional Administrator and the State and local Air Pollution Control Agency. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
46. The provisions of this Authority to Construct are severable, and, if any provision of the Authority to Construct is held invalid, the remainder of this Authority to Construct shall not be affected thereby. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
47. The owner and operator of the proposed facility shall construct and operate the proposed stationary source in compliance with all other applicable provisions of 40 CFR Parts 52, 60, and 61 and all other applicable federal, state, and local air quality regulations. [PSD SJ 78-16] Federally Enforceable Through Title V Permit.
48. Permittee shall consume no more than 5125 barrels per day of oil on a daily maximum average and no more than 4648 barrels per day of oil on an annual average basis. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
49. The amount of fuel burned and the sulfur content of the fuel shall be recorded in a permanent record and shall be available for periodic inspection by the District, the California Air Resource Board, and the EPA. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
50. Permittee shall have installed operable scrubbers on the equipment. Exhaust gases from the generators shall be ducted through operable scrubbers. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
51. Within 60 days after achieving the maximum production rate of the proposed facility, but not later than 180 days after initial start-up of this facility (as defined in 40 CFR 60.2(o)), and at such other times as specified by the EPA, permittee shall conduct performance tests for SO<sub>2</sub>, and furnish the District and the EPA a written report of the results of such tests. The tests for SO<sub>2</sub> shall be conducted on an annual basis. The performance tests shall be conducted for each scrubber required for the generator. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
52. Permittee shall not discharge into the atmosphere NO<sub>x</sub> in excess of 0.277 lb/MMBtu (maximum 2-hour average). [PSD SJ 78-16] Federally Enforceable Through Title V Permit
53. Within 60 days after achieving the maximum production rate of the proposed facility, but not later than 180 days after initial start-up of this facility (as defined in 40 CFR 60.2(o)), and at such other times as specified by the EPA, permittee shall conduct performance test for NO<sub>x</sub>, and furnish the District and the EPA written report of the results of such tests. The tests for NO<sub>x</sub> shall be conducted on an annual basis and at the maximum operating capacity of the facilities being tested. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
54. Permittee shall install and operate ammonia injection equipment to control nitrogen oxide emissions on the steam generator. This condition may be amended if other control technologies are determined by EPA to satisfy BACT requirements, in accordance with the periodic BACT review procedure below. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
55. Permittee shall submit updated Best Available Control Technology (BACT) proposals every six months. Based on the information submitted and on other information which is available at that time, EPA may impose more stringent emission limits for NO<sub>x</sub>. In no event shall EPA set a higher emission limit for NO<sub>x</sub>. [PSD SJ 78-16] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

56. Performance tests for the emission of NOx and SO2 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. The EPA shall be notified at least 30 days in advance of such test to allow an observer to be present. In lieu of the above mentioned test methods, equivalent methods may be used if approved by the EPA. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
57. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320]
58. 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]
59. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit



## AUTHORITY TO CONSTRUCT

**PERMIT NO:** S-1141-552-8

**ISSUANCE DATE:** 07/21/2010

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

**LOCATION:** HEAVY OIL WESTERN STATIONARY SOURCE  
CA

**SECTION:** NW17 **TOWNSHIP:** 32S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**

MODIFICATION OF 62.5 MMBTU/HR NATURAL/TEOR/TVC GAS FIRED CE NATCO STEAM GENERATOR (NATIONAL BOARD #192) WITH NORTH AMERICAN MAGNA-FLAME GLE ULTRA-LOW NOX BURNER, O2 CONTROLLER, AND FGR: LIMIT FUEL GAS SULFUR CONTENT TO 5 GR-S/100 SCF OR REDUCE SOX BY 95% VIA SCRUBBING OR TO AN OUTLET CONCENTRATION NOT EXCEEDING 9 PPMVD @ 3% O2 FOR RULE 4320 COMPLIANCE

## CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District NSR Rule] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. This Authority to Construct shall be implemented according to the date proposed in the District-approved Rule 4320 Emission Control Plan. [District Rule 4320]
4. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081] Federally Enforceable Through Title V Permit
5. Fuel H2S, total sulfur, and methane content shall be determined semi-annually using the following test methods H2S: ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, double GC for H2S and mercaptans or ASTM D6228; and methane content: ASTM D1945. [District Rule 4320]

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

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6. Each fuel source shall be tested semi-annually for sulfur content and higher heating value. If a fuel content test fails to show compliance, weekly testing is required until compliance is demonstrated for 8 consecutive weeks, after which semi-annual testing may resume. [District Rules 2520, 9.3.2 and 4320, 5.7.6] Federally Enforceable Through Title V Permit
7. If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value. [District Rules 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit
8. If the unit is not fired on PUC-regulated natural gas and compliance is achieved through fuel sulfur content limitations, then the sulfur content of the fuel shall be determined by testing sulfur content at a location after all fuel sources are combined prior to incineration, or by performing mass balance calculations based on monitoring the sulfur content and volume of each fuel source. The sulfur content of the fuel shall be determined using the test methods referenced in this permit. [District Rules 2520, 9.3.2 and 4320, 5.7.6] Federally Enforceable Through Title V Permit
9. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by: ASTM D 1826 or D1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 2520, 9.4.2, 4305, 6.2.1 and 4320] Federally Enforceable Through Title V Permit
10. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
11. Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO<sub>2</sub>, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
12. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
13. This unit commenced construction, modification, or reconstruction prior to June 19, 1984. This unit has not been used to produce electricity for sale in 1985 or on or after November 15, 1990. Therefore, 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
14. This unit is located west of Interstate 5 in Kern county. Therefore, the requirements of District Rule 4351 (Amended October 19, 1995) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
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17. When combustion air orifice and flue gas recirculation orifice have been used to demonstrate compliance they shall not be changed without a District-witnessed compliance demonstration. [District NSR Rule] Federally Enforceable Through Title V Permit
18. Duration of start-up or shutdown shall not exceed 2 hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain records of the duration of each start-up and shutdown periods. [District Rule 4306 and 4320]
19. 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] Federally Enforceable Through Title V Permit

20. Emission rates shall not exceed: PM10: 117.0 lb/day or 42,705 lb/year, SOx: 189 lb/day or 68,985 lb/year, NOx (as NO2): 54.0 lb/day or 9855 lb/year, VOC: 9.0 lb/day or 3285 lb/year, CO: 49.5 lb/day or 18,068 lb/year. [District NSR Rule] Federally Enforceable Through Title V Permit
21. Emission rates shall not exceed any of the following: PM10: 0.078 lb/MMBtu, SOx (as SO2) 0.126 lb/MMBtu, or VOC: 0.006 lb/MMBtu. [District NSR Rule, 4305, 4306 and 4320, PSD SJ78-16] Federally Enforceable Through Title V Permit
22. Emission rates, except during startup and shutdown, shall not exceed any of the following: NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2 or CO: 0.033 lb/MMBtu or 45 ppmv @ 3% O2. [District NSR Rule, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
23. During start-up and shutdown periods, emissions from the steam generator shall not exceed the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
24. Fuel gas sulfur content shall not exceed 5 gr S/100 dscf unless SOx emissions are reduced by 95% or to 9 ppmv SOx @ 3% O2 in the exhaust with scrubber. [District Rule 4320]
25. Permittee shall pave and maintain with asphalt no less than 0.45 miles of roadway. The 0.45 miles of roadways constructed are in addition to new roadways associated with other steam injection and oil production well projects [District NSR Rule] Federally Enforceable Through Title V Permit
26. Permittee shall maintain daily records of volume of natural gas burned, TEOR and TVC gas incinerated, and permit number(s) of systems providing gas for incineration and shall make the preceding five years records available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
27. Compliance with SOx emission limits shall be demonstrated within 60 days of initial operation under this ATC. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
28. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
29. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
30. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
31. Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit
32. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
33. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
34. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19; CO (ppmv) - EPA Method 10 or ARB Method 100; Stack gas oxygen (O2) - EPA Method 3 or 3A or ARB Method 100; stack gas velocities - EPA Method 2; and Stack gas moisture content - EPA Method 4. [District Rules 1081, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

35. The permittee shall monitor and record the stack concentration of 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, 4306 and 4320] Federally Enforceable Through Title V Permit
36. 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, 4306 and 4320] Federally Enforceable Through Title V Permit
37. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
38. The permittee shall maintain records of: (1) the date and time of 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 and 4306] Federally Enforceable Through Title V Permit
39. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
40. All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of this Authority to Construct 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 78-16] Federally Enforceable Through Title V Permit
41. The EPA Regional Administrator shall be notified by telephone, facsimile, or electronic mail transmission within two (2) working days 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 emission limit stated in the condition below. In addition, the Regional Administrator shall be notified in writing within fifteen (15) days of any such failure. The notification shall include a description of the malfunctioning equipment or abnormal operation, the date of the 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 condition below, and the methods utilized to mitigate emissions and 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 78-16] Federally Enforceable Through Title V Permit
42. The EPA Regional Administrator, the head of the State Air Pollution Control Agency, the head of the responsible local Air Pollution Control Agency, and/or their authorized representative, upon the presentation of credentials, shall be permitted: A. to enter the premises where the source is located or where any records are required to be kept under the terms and conditions of this Authority to Construct; and B. at reasonable times to have access to and copy any records required to be kept under the terms and conditions of this Authority to Construct; and C. to inspect any equipment, operation, or method required in this Authority to Construct; and D. to sample emissions from the source(s). [PSD SJ 78-16] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

43. In the event of any changes in control or ownership of the facilities to be constructed, the Authority to Construct shall be binding on all subsequent owners and operators. The applicant shall notify the succeeding owner and operator of the existence of this Authority to Construct and its conditions by letter, a copy of which shall be forwarded to the EPA Regional Administrator and the State and local Air Pollution Control Agency. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
44. The provisions of this Authority to Construct are severable, and, if any provision of the Authority to Construct is held invalid, the remainder of this Authority to Construct shall not be affected thereby. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
45. The owner and operator of the proposed facility shall construct and operate the proposed stationary source in compliance with all other applicable provisions of 40 CFR Parts 52, 60, and 61 and all other applicable federal, state, and local air quality regulations. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
46. Permittee shall consume no more than 5125 barrels per day of oil on a daily maximum average and no more than 4648 barrels per day of oil on an annual average basis. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
47. The amount of fuel burned and the sulfur content of the fuel shall be recorded in a permanent record and shall be available for periodic inspection by the District, the California Air Resource Board, and the EPA. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
48. Permittee shall have installed operable scrubbers on the equipment. Exhaust gases from the generators shall be ducted through operable scrubbers. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
49. Within 60 days after achieving the maximum production rate of the proposed facility, but not later than 180 days after initial start-up of this facility (as defined in 40 CFR 60.2(o)), and at such other times as specified by the EPA, permittee shall conduct performance tests for SO<sub>2</sub>, and furnish the District and the EPA a written report of the results of such tests. The tests for SO<sub>2</sub> shall be conducted on an annual basis. The performance tests shall be conducted for each scrubber required for the generator. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
50. Within 60 days after achieving the maximum production rate of the proposed facility, but not later than 180 days after initial start-up of this facility (as defined in 40 CFR 60.2(o)), and at such other times as specified by the EPA, permittee shall conduct performance test for NO<sub>x</sub>, and furnish the District and the EPA written report of the results of such tests. The tests for NO<sub>x</sub> shall be conducted on an annual basis and at the maximum operating capacity of the facilities being tested. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
51. Permittee shall install and operate ammonia injection equipment to control nitrogen oxide emissions on the steam generator. This condition may be amended if other control technologies are determined by EPA to satisfy BACT requirements, in accordance with the periodic BACT review procedure below. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
52. Permittee shall submit updated Best Available Control Technology (BACT) proposals every six months. Based on the information submitted and on other information which is available at that time, EPA may impose more stringent emission limits for NO<sub>x</sub>. In no event shall EPA set a higher emission limit for NO<sub>x</sub>. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
53. Performance tests for the emission of NO<sub>x</sub> and SO<sub>2</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. The EPA shall be notified at least 30 days in advance of such test to allow an observer to be present. In lieu of the above mentioned test methods, equivalent methods may be used if approved by the EPA. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
54. 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]
55. 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]

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



## AUTHORITY TO CONSTRUCT

**PERMIT NO:** S-1141-553-8

**ISSUANCE DATE:** 07/21/2010

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

**LOCATION:** HEAVY OIL WESTERN STATIONARY SOURCE  
CA

**SECTION:** NW17 **TOWNSHIP:** 32S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**

MODIFICATION OF 62.5 MMBTU/HR NATURAL/TEOR/TVC GAS FIRED SMITH MOON STEEL STEAM GENERATOR (NATIONAL BOARD #552) WITH NORTH AMERICAN GLE MAGNA FLAME LOW NOX BURNER, O2 ANALYZER/CONTROLLER, AND FGR WITH VARIABLE SPEED INTAKE AIR BLOWER, ORIFICE PLATE(S), AND ELECTRONIC CONTROLS: LIMIT SOX TO 5 GR-S/100 SCF OR REDUCE SOX BY 95% VIA SCRUBBING OR TO AN OUTLET CONCENTRATION OF 9 PPMVD @ 3% O2 FOR RULE 4320 COMPLIANCE

## CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District NSR Rule] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. This Authority to Construct shall be implemented according to the date proposed in the District-approved Rule 4320 Emission Control Plan. [District Rule 4320]
4. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director / APCO



DAVID WARNER, Director of Permit Services

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5. Fuel H<sub>2</sub>S, total sulfur, and methane content shall be determined semi-annually using the following test methods H<sub>2</sub>S: ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, double GC for H<sub>2</sub>S and mercaptans or ASTM D6228; and methane content: ASTM D1945. [District Rule 4320]
6. Each fuel source shall be tested semi-annually for sulfur content and higher heating value. If a fuel content test fails to show compliance, weekly testing is required until compliance is demonstrated for 8 consecutive weeks, after which semi-annually testing may resume. [District Rules 2520, 9.3.2 and 4320, 5.7.6] Federally Enforceable Through Title V Permit
7. If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value. [District Rules 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit
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9. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by: ASTM D 1826 or D1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 2520, 9.4.2 , 4305, 6.2.1 and 4320] Federally Enforceable Through Title V Permit
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20. Emission rates, except during startup and shutdown, shall not exceed any of the following: NO<sub>x</sub> (as NO<sub>2</sub>): 0.018 lb/MMBtu or 15 ppmv @ 3% O<sub>2</sub>, or CO: 45 ppmv @ 3% O<sub>2</sub>. [District Rule 2201, 4305, 4306 and 4320, PSD SJ78-16] Federally Enforceable Through Title V Permit
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CONDITIONS CONTINUE ON NEXT PAGE

34. 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, 4306 and 4320] Federally Enforceable Through Title V Permit
35. 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, 4306 and 4320] Federally Enforceable Through Title V Permit
36. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
37. 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 and 4306] Federally Enforceable Through Title V Permit
38. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
39. All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of this Authority to Construct 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 78-16] Federally Enforceable Through Title V Permit
40. The EPA Regional Administrator shall be notified by telephone, facsimile, or electronic mail transmission within two (2) working days 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 emission limit stated in the condition below. In addition, the Regional Administrator shall be notified in writing within fifteen (15) days of any such failure. The notification shall include a description of the malfunctioning equipment or abnormal operation, the date of the 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 condition below, and the methods utilized to mitigate emissions and 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 78-16] Federally Enforceable Through Title V Permit
41. The EPA Regional Administrator, the head of the State Air Pollution Control Agency, the head of the responsible local Air Pollution Control Agency, and/or their authorized representative, upon the presentation of credentials, shall be permitted: A. to enter the premises where the source is located or where any records are required to be kept under the terms and conditions of this Authority to Construct; and B. at reasonable times to have access to and copy any records required to be kept under the terms and conditions of this Authority to Construct; and C. to inspect any equipment, operation, or method required in this Authority to Construct; and D. to sample emissions from the source(s). [PSD SJ 78-16] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

42. In the event of any changes in control or ownership of the facilities to be constructed, the Authority to Construct shall be binding on all subsequent owners and operators. The applicant shall notify the succeeding owner and operator of the existence of this Authority to Construct and its conditions by letter, a copy of which shall be forwarded to the EPA Regional Administrator and the State and local Air Pollution Control Agency. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
43. The provisions of this Authority to Construct are severable, and, if any provision of the Authority to Construct is held invalid, the remainder of this Authority to Construct shall not be affected thereby. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
44. The owner and operator of the proposed facility shall construct and operate the proposed stationary source in compliance with all other applicable provisions of 40 CFR Parts 52, 60, and 61 and all other applicable federal, state, and local air quality regulations. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
45. Permittee shall consume no more than 5125 barrels per day of oil on a daily maximum average and no more than 4648 barrels per day of oil on an annual average basis. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
46. The amount of fuel burned and the sulfur content of the fuel shall be recorded in a permanent record and shall be available for periodic inspection by the District, the California Air Resource Board, and the EPA. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
47. Permittee shall have installed operable scrubbers on the equipment. Exhaust gases from the generators shall be ducted through operable scrubbers. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
48. Within 60 days after achieving the maximum production rate of the proposed facility, but not later than 180 days after initial start-up of this facility (as defined in 40 CFR 60.2(o)), and at such other times as specified by the EPA, permittee shall conduct performance tests for SO<sub>2</sub>, and furnish the District and the EPA a written report of the results of such tests. The tests for SO<sub>2</sub> shall be conducted on an annual basis. The performance tests shall be conducted for each scrubber required for the generator. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
49. Within 60 days after achieving the maximum production rate of the proposed facility, but not later than 180 days after initial start-up of this facility (as defined in 40 CFR 60.2(o)), and at such other times as specified by the EPA, permittee shall conduct performance test for NO<sub>x</sub>, and furnish the District and the EPA written report of the results of such tests. The tests for NO<sub>x</sub> shall be conducted on an annual basis and at the maximum operating capacity of the facilities being tested. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
50. Permittee shall install and operate ammonia injection equipment to control nitrogen oxide emissions on the steam generator. This condition may be amended if other control technologies are determined by EPA to satisfy BACT requirements, in accordance with the periodic BACT review procedure below. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
51. Permittee shall submit updated Best Available Control Technology (BACT) proposals every six months. Based on the information submitted and on other information which is available at that time, EPA may impose more stringent emission limits for NO<sub>x</sub>. In no event shall EPA set a higher emission limit for NO<sub>x</sub>. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
52. Performance tests for the emission of NO<sub>x</sub> and SO<sub>2</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. The EPA shall be notified at least 30 days in advance of such test to allow an observer to be present. In lieu of the above mentioned test methods, equivalent methods may be used if approved by the EPA. [PSD SJ 78-16] Federally Enforceable Through Title V Permit
53. 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]
54. 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]

CONDITIONS CONTINUE ON NEXT PAGE

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



## AUTHORITY TO CONSTRUCT

**PERMIT NO:** S-1141-555-12

**ISSUANCE DATE:** 07/21/2010

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

**LOCATION:** HEAVY OIL WESTERN STATIONARY SOURCE  
CA

**SECTION:** NW17 **TOWNSHIP:** 32S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**

MODIFICATION OF 62.5 MMBTU/HR NATURAL/TEOR/TVC GAS FIRED SMITH MOON STEEL STEAM GENERATOR (NATIONAL BOARD #7953) WITH NORTH AMERICAN MAGNA-FLAME GLE ULTRA-LOW NOX BURNER, O2 CONTROLLER, FGR AND SO2 SCRUBBER SHARED WITH '-556 AND '-557: REDUCE SOX BY 95% VIA SCRUBBING OR TO 9 PPMV @ 3% O2 FOR RULE 4320 COMPLIANCE

### CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District NSR Rule] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. This Authority to Construct shall be implemented according to the date proposed in the District-approved Rule 4320 Emission Control Plan. [District Rule 4320]
4. Exhaust from unit shall be directed to SOx scrubber authorized herein except when unit is combusting only PUC quality natural gas with a sulfur content not exceeding 1.0 gr S/100scf. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Scrubber control efficiency shall be maintained at least 95% by weight sulfur compounds or greater, or SO2 concentration at the stack gas outlet that shall not exceed 9 ppmvd corrected to 3% O2. [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 / APCO

DAVID WARNER, Director of Permit Services

S-1141-555-12 - Jul 22 2010 9:24AM - GDLUGHD - Joint Inspection NOT Required

6. 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
7. Daily average pH of scrubber liquor (calculated from hourly averages) shall be maintained between 6 and 8, and shall be continuously monitored. [District NSR Rule] Federally Enforceable Through Title V Permit
8. SO<sub>2</sub> scrubber exhaust shall be vented to operational Brinks mist eliminator prior to being exhausted to atmosphere when total H<sub>2</sub>S loading to any one of the steam generators exceeds 1.24 lb/min for an aggregate of three or more minutes in any one hour period. H<sub>2</sub>S concentration of the TEOR gas shall be determined and entered into the generator fuel throughput processor weekly using gas detection tubes to determine H<sub>2</sub>S concentration. The H<sub>2</sub>S loading shall be calculated using the generator actual fuel volumetric flow rate and H<sub>2</sub>S concentration of the TEOR and fuel gas. [District Rules 2201 and 4101] Federally Enforceable Through Title V Permit
9. Fuel H<sub>2</sub>S, total sulfur, and methane content shall be determined semi-annually using the following test methods H<sub>2</sub>S: ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, double GC for H<sub>2</sub>S and mercaptans or ASTM D6228; and methane content: ASTM D1945. [District Rule 4320]
10. Each fuel source shall be tested semi-annually for sulfur content and higher heating value. If a fuel content test fails to show compliance, weekly testing is required until compliance is demonstrated for 8 consecutive weeks, after which semi-annual testing may resume. [District Rules 2520, 9.3.2 and 4320, 5.7.6] Federally Enforceable Through Title V Permit
11. If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value. [District Rules 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit
12. If the unit is not fired on PUC-regulated natural gas and compliance is achieved through fuel sulfur content limitations, then the sulfur content of the fuel shall be determined by testing sulfur content at a location after all fuel sources are combined prior to incineration, or by performing mass balance calculations based on monitoring the sulfur content and volume of each fuel source. The sulfur content of the fuel shall be determined using the test methods referenced in this permit. [District Rules 2520, 9.3.2 and 4320, 5.7.6] Federally Enforceable Through Title V Permit
13. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by: ASTM D 1826 or D1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 2520, 9.4.2, 4305, 6.2.1 and 4320] Federally Enforceable Through Title V Permit
14. Scrubber mist eliminator shall be properly cleaned and maintained. [District NSR Rule] Federally Enforceable Through Title V Permit
15. Exhaust gas stack shall be equipped with adequate provisions facilitating the collection of gas samples consistent with EPA Test Methods. [District NSR Rule and District Rule 1081] Federally Enforceable Through Title V Permit
16. Flue gas recirculation system may be designed such that ambient air may be drawn into flue gas recirculation piping. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Annual combined emissions of PM<sub>10</sub> from units '-555, '-556, and '-557 shall not exceed 115,687 lb/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Permittee shall demonstrate compliance with the annual PM<sub>10</sub> combined emission limit for units '-555, '-556, and '-557 by calculation using the amount of fuel combusted, and either the results from the latest source test or the permitted emission factor if there is no PM<sub>10</sub> source test data. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Emission rates shall not exceed any of the following: PM<sub>10</sub>: 109.5 lb/day, SO<sub>x</sub>: 94.5 lb/day, NO<sub>x</sub> (as NO<sub>2</sub>): 54.0 lb/day and 9855 lb/year, VOC: 9.0 lb/day, CO: 41.0 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

20. Emission rates shall not exceed any of the following: PM10: 0.073 lb/MMBtu, SOx (as SO2): 0.063 lb/MMBtu or 9 ppmv @ 3% O2, or VOC: 0.006 lb/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
21. Except during periods of startup and shutdown, emission rates shall not exceed any of the following: NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 37 ppmv @ 3% O2 or 0.0273 lb/MMBtu. [District Rules 2201, 4305, 4306 or 4320] Federally Enforceable Through Title V Permit
22. During start-up and shutdown periods, emissions from the steam generator shall not exceed the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
23. Duration of start-up or shutdown shall not exceed 2 hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain records of the duration of each start-up and shutdown periods. [District Rules 4306 and 4320]
24. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken 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 4320]
25. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
26. Compliance with NOx, CO and PM10 emissions limits (lb/MM Btu or ppmv) shall be demonstrated by source testing, at startup and at least once every twelve (12) months thereafter. 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 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
27. If required, compliance with the scrubber control efficiency requirement shall be demonstrated within 60 days of startup and at least once every twelve (12) months thereafter. [District Rule 2201]
28. Whenever the unit is switched to scrubbed operation, compliance source testing for SOx 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
29. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
30. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, stack gas velocities - EPA Method 2, stack gas moisture content - EPA Method 4, and PM10 (lb/scf)-EPA Methods 5, 201A, and 202. [District Rules 1081, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
31. Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit
32. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
33. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

34. The permittee shall monitor and record the stack concentration of 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, 4306 and 4320] Federally Enforceable Through Title V Permit
35. 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, 4306 and 4320] Federally Enforceable Through Title V Permit
36. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
37. 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, 4306 and 4320] Federally Enforceable Through Title V Permit
38. Permittee shall pave and maintain with asphalt no less than 0.45 miles of roadway. The 0.45 miles of roadways constructed are in addition to new roadways associated with other steam injection and oil production well projects. [District NSR Rule] Federally Enforceable Through Title V Permit
39. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
40. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Amended December 16, 1993). [District Rule 1081, and Kern County Rule 108.1] Federally Enforceable Through Title V Permit
41. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
42. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
43. Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO<sub>2</sub>, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
44. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO<sub>2</sub>. Compliance with this requirement may be demonstrated by firing the unit only on PUC or FERC regulated natural gas; or by testing the sulfur content of each fuel and determining the maximum hourly emissions of sulfur compounds by multiplying the sulfur content of each fuel in lb/MMBtu by the maximum heat input rating of the unit; or by source testing in combination with fuel analysis. [District Rules 2520, 9.3.2 and 4301, 5.2.1] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

45. When complying with SO<sub>x</sub> emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Method 6B; or Method 8 or ARB Method 1-100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD or double GC performed in the laboratory and EPA Method 19 to calculated emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
46. Nitrogen oxide (NO<sub>x</sub>) emissions shall not exceed 140 lb/hr, calculated as NO<sub>2</sub>. [District Rules 4301, 5.2.2 and 2520, 9.3.2] Federally Enforceable Through Title V Permit
47. Permittee shall maintain with the permit a current listing of all TEOR and TVC gas systems providing vapors to this steam generator and shall make such listing readily available for District inspection upon request [District NSR Rule] Federally Enforceable Through Title V Permit
48. Permittee shall maintain records of H<sub>2</sub>S loading (lb H<sub>2</sub>S/min) and dates and duration of Brinks Mist Eliminator operation and shall make such records readily available for District. [District Rule 2201] Federally Enforceable Through Title V Permit
49. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for 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]
50. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and Rule 4320]
51. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit



## AUTHORITY TO CONSTRUCT

**PERMIT NO:** S-1141-556-13

**ISSUANCE DATE:** 07/21/2010

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

**LOCATION:** HEAVY OIL WESTERN STATIONARY SOURCE  
CA

**SECTION:** NW17 **TOWNSHIP:** 32S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**

MODIFICATION OF 62.5 MMBTU/HR NATURAL/TEOR/TVC GAS-FIRED SMITH MOON STEEL STEAM GENERATOR WITH A NORTH AMERICAN MAGNA-FLAME GLE ULTRA-LOW NOX BURNER WITH AN O2 ANALYZER/CONTROLLER AND FGR WITH VARIABLE SPEED INTAKE AIR BLOWER, ORIFICE PLATE(S), ELECTRONIC CONTROLS (NATIONAL BOARD #653), AND SO2 SCRUBBER SHARED WITH '-555 AND '-557: REDUCE SOX BY 95% VIA SCRUBBING OR TO 9 PPMV @ 3% O2 FOR RULE 4320 COMPLIANCE

### CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District NSR Rule] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. This Authority to Construct shall be implemented according to the date proposed in the District-approved Rule 4320 Emission Control Plan. [District Rule 4320]
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
5. Exhaust from unit shall be directed to SOx scrubber authorized herein except when unit is combusting only PUC quality natural gas with a sulfur content not exceeding 1.0 gr S/100scf. [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 / APCO

DAVID WARNER, Director of Permit Services

S-1141-556-13 - Jul 22 2010 9:24AM - GOUJND : Joint Inspection NOT Required

6. Scrubber control efficiency shall be maintained at least 95% by weight sulfur compounds or greater, or SO<sub>2</sub> concentration at the stack gas outlet that shall not exceed 9 ppmvd corrected to 3% O<sub>2</sub>. [District Rule 2201] Federally Enforceable Through Title V Permit
7. 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
8. Daily average pH of scrubber liquor (calculated from hourly averages) shall be maintained between 6 and 8, and shall be continuously monitored. [District NSR Rule] Federally Enforceable Through Title V Permit
9. SO<sub>2</sub> scrubber exhaust shall be vented to operational Brinks mist eliminator prior to being exhausted to atmosphere when total H<sub>2</sub>S loading to any one of the steam generators exceeds 1.24 lb/min for an aggregate of three or more minutes in any one hour period. H<sub>2</sub>S concentration of the TEOR gas shall be determined and entered into the generator fuel throughput processor weekly using gas detection tubes to determine H<sub>2</sub>S concentration. The H<sub>2</sub>S loading shall be calculated using the generator actual fuel volumetric flow rate and H<sub>2</sub>S concentration of the TEOR and fuel gas. [District Rules 2201 and 4101] Federally Enforceable Through Title V Permit
10. Fuel H<sub>2</sub>S, total sulfur, and methane content shall be determined semi-annually using the following test methods H<sub>2</sub>S: ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, double GC for H<sub>2</sub>S and mercaptans or ASTM D6228; and methane content: ASTM D1945. [District Rule 4320]
11. Each fuel source shall be tested semi-annually for sulfur content and higher heating value. If a fuel content test fails to show compliance, weekly testing is required until compliance is demonstrated for 8 consecutive weeks; after which semi-annual testing may resume. [District Rules 2520, 9.3.2 and 4320, 5.7.6] Federally Enforceable Through Title V Permit
12. If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value. [District Rules 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit
13. If the unit is not fired on PUC-regulated natural gas and compliance is achieved through fuel sulfur content limitations, then the sulfur content of the fuel shall be determined by testing sulfur content at a location after all fuel sources are combined prior to incineration, or by performing mass balance calculations based on monitoring the sulfur content and volume of each fuel source. The sulfur content of the fuel shall be determined using the test methods referenced in this permit. [District Rules 2520, 9.3.2 and 4320, 5.7.6] Federally Enforceable Through Title V Permit
14. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by: ASTM D 1826 or D1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 2520, 9.4.2 , 4305, 6.2.1 and 4320] Federally Enforceable Through Title V Permit
15. Scrubber mist eliminator shall be properly cleaned and maintained. [District NSR Rule] Federally Enforceable Through Title V Permit
16. Flue gas recirculation system may be designed such that ambient air may be drawn into flue gas recirculation piping. [District NSR Rule] Federally Enforceable Through Title V Permit
17. When combustion air orifice and flue gas recirculation orifice have been used to demonstrate compliance they shall not be changed without a District-witnessed compliance demonstration. [District NSR Rule] Federally Enforceable Through Title V Permit
18. Permittee shall pave and maintain with asphalt no less than 0.45 miles of roadway. The 0.45 miles of roadways constructed are in addition to new roadways associated with other steam injection and oil production well projects [District NSR Rule] Federally Enforceable Through Title V Permit
19. Annual combined emissions of PM<sub>10</sub> from units '-555, '-556, and '-557 shall not exceed 115,687 lb/yr. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

20. Emission rates shall not exceed any of the following: PM10: 109.5 lb/day, SOx: 94.5 lb/day, NOx (as NO2): 54.0 lb/day and 9855 lb/year, VOC: 9.0 lb/day, CO: 56.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Permittee shall demonstrate compliance with the annual PM10 combined emission limit for units '-555, '-556, and '-557 by calculation using the amount of fuel combusted, and either the results from the latest source test or the permitted emission factor if there is no PM10 source test data. [District Rule 2201] Federally Enforceable Through Title V Permit
22. Except during periods of startup and shutdown, emission rates shall not exceed any of the following: NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 50 ppmv @ 3% O2 or 0.0375 lb/MMBtu. [District Rules 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
23. Emission rates shall not exceed any of the following: PM10: 0.073 lb/MMBtu, or SOx (as SO2): 0.063 lb/MMBtu or 9 ppmv @ 3% O2, or VOC: 0.006 lb/MMBtu. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
24. During start-up and shutdown periods, emissions from the steam generator shall not exceed the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
25. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 5.5.6, 4306, 5.3 and 4320] Federally Enforceable Through Title V Permit
26. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4306, 3.25 and 3.22] Federally Enforceable Through Title V Permit
27. Maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 54.0 lb-NOx/day, 9,965 lb-NOx/yr, 56.3 lb-CO/day. [District NSR Rule] Federally Enforceable Through Title V Permit
28. Compliance with NOx, CO and PM10 emissions limits (lb/MM Btu or ppmv) shall be demonstrated by source testing, at startup and at least once every twelve (12) months thereafter. 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 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
29. If required, compliance with the scrubber control efficiency requirement shall be demonstrated within 60 days of startup and at least once every twelve (12) months thereafter. [District Rule 2201]
30. Whenever the unit is switched to scrubbed operation, compliance source testing for SOx 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
31. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19; CO (ppmv) - EPA Method 10 or ARB Method 100; Stack gas oxygen (O2) - EPA Method 3 or 3A or ARB Method 100; stack gas velocities - EPA Method 2; Stack gas moisture content - EPA Method 4. [District Rules 1081, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
32. 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
33. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4, 4306, 5.4 and 4320] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

34. 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
35. 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
36. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1, 4306, 5.5.1 and 4320] Federally Enforceable Through Title V Permit
37. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081 and County Rule 108.1 (Kern)] Federally Enforceable Through Title V Permit
38. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 4305, 5.5.2, 4306, 5.5.2 and 4320] Federally Enforceable Through Title V Permit
39. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5, 4306, 5.5.5 and 4320] Federally Enforceable Through Title V Permit
40. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
41. The permittee shall maintain records of: (1) the date and time of 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 and 4306, 6.1] Federally Enforceable Through Title V Permit
42. Permittee shall maintain with the permit a current listing of all TEOR and TVC gas systems providing vapors to this steam generator and shall make such listing readily available for District inspection upon request [District NSR Rule] Federally Enforceable Through Title V Permit
43. Permittee shall maintain records of H<sub>2</sub>S loading (lb H<sub>2</sub>S/min) and dates and duration of Brinks Mist Eliminator operation and shall make such records readily available for District. [District Rule 2201] Federally Enforceable Through Title V Permit
44. 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]

CONDITIONS CONTINUE ON NEXT PAGE

45. 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]
46. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1, 4306, 6.1 and 4320] Federally Enforceable Through Title V Permit



## AUTHORITY TO CONSTRUCT

PERMIT NO: S-1141-557-11

ISSUANCE DATE: 07/21/2010

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

LOCATION: HEAVY OIL WESTERN STATIONARY SOURCE  
CA

SECTION: NW17 TOWNSHIP: 32S RANGE: 23E

### EQUIPMENT DESCRIPTION:

MODIFICATION OF 62.5 MMBTU/HR NATURAL/TEOR/TVC GAS-FIRED C.E. NATCO STEAM GENERATOR WITH A NORTH AMERICAN MAGNA-FLAME GLE ULTRA LOW-NOX BURNER, WITH AN O2 ANALYZER/CONTROLLER AND FLUE GAS RECIRCULATION (FGR) SYSTEM WITH VARIABLE SPEED INTAKE AIR BLOWER, ORIFICE PLATE(S), ELECTRONIC CONTROLS (NATIONAL BOARD #9333, SMSP #8), AND SO2 SCRUBBER SHARED WITH '555 AND '556: REDUCE SOX BY 95% VIA SCRUBBING OR TO 9 PPMV @ 3% O2 FOR RULE 4320 COMPLIANCE

## CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District NSR Rule] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. This Authority to Construct shall be implemented according to the date proposed in the District-approved Rule 4320 Emission Control Plan. [District Rule 4320]
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
5. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [County Rules 404 (Madera), 406 (Fresno), and 407 (Kings, Merced, San Joaquin, Tulare, Kern, and Stanislaus)] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director / APCO



DAVID WARNER, Director of Permit Services

S-1141-557-11 : Jul 22 2010 9:34AM - G042010 : Joint Inspection NOT Required

6. Exhaust from unit shall be directed to SOx scrubber authorized herein except when unit is combusting only PUC quality natural gas with a sulfur content not exceeding 1.0 gr S/100scf. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Scrubber control efficiency shall be maintained at least 95% by weight sulfur compounds or greater, or SO2 concentration at the stack gas outlet that shall not exceed 9 ppmvd corrected to 3% O2. [District Rule 2201] 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. Daily average pH of scrubber liquor (calculated from hourly averages) shall be maintained between 6 and 8, and shall be continuously monitored. [District NSR Rule] Federally Enforceable Through Title V Permit
10. SO2 scrubber exhaust shall be vented to operational Brinks mist eliminator prior to being exhausted to atmosphere when total H2S loading to any one of the steam generators exceeds 1.24 lb/min for an aggregate of three or more minutes in any one hour period. H2S concentration of the TEOR gas shall be determined and entered into the generator fuel throughput processor weekly using gas detection tubes to determine H2S concentration. The H2S loading shall be calculated using the generator actual fuel volumetric flow rate and H2S concentration of the TEOR and fuel gas. [District Rules 2201 and 4101] Federally Enforceable Through Title V Permit
11. Fuel H2S, total sulfur, and methane content shall be determined semi-annually using the following test methods H2S: ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, double GC for H2S and mercaptans or ASTM D6228; and methane content: ASTM D1945. [District Rule 4320]
12. Each fuel source shall be tested semi-annually for sulfur content and higher heating value. If a fuel content test fails to show compliance, weekly testing is required until compliance is demonstrated for 8 consecutive weeks, after which semi-annual testing may resume. [District Rules 2520, 9.3.2 and 4320, 5.7.6] Federally Enforceable Through Title V Permit
13. If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value. [District Rules 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit
14. If the unit is not fired on PUC-regulated natural gas and compliance is achieved through fuel sulfur content limitations, then the sulfur content of the fuel shall be determined by testing sulfur content at a location after all fuel sources are combined prior to incineration, or by performing mass balance calculations based on monitoring the sulfur content and volume of each fuel source. The sulfur content of the fuel shall be determined using the test methods referenced in this permit. [District Rules 2520, 9.3.2 and 4320, 5.7.6] Federally Enforceable Through Title V Permit
15. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by: ASTM D 1826 or D1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 2520, 9.4.2, 4305, 6.2.1 and 4320] Federally Enforceable Through Title V Permit
16. Scrubber mist eliminator shall be properly cleaned and maintained. [District NSR Rule] Federally Enforceable Through Title V Permit
17. Flue gas recirculation system may be designed such that ambient air may be drawn into flue gas recirculation piping. [District Rule 2201] Federally Enforceable Through Title V Permit
18. When combustion air orifice and flue gas recirculation orifice have been used to demonstrate compliance they shall not be changed without a District-witnessed compliance demonstration. [District NSR Rule] Federally Enforceable Through Title V Permit
19. Permittee shall pave and maintain with asphalt no less than 0.45 miles of roadway. The 0.45 miles of roadways constructed are in addition to new roadways associated with other steam injection and oil production well projects [District NSR Rule] Federally Enforceable Through Title V Permit

20. Annual combined emissions of PM10 from units '-555, '-556, and '-557 shall not exceed 115,687 lb/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Permittee shall demonstrate compliance with the annual PM10 combined emission limit for units '-555, '-556, and '-557 by calculation using the amount of fuel combusted, and either the results from the latest source test or the permitted emission factor if there is no PM10 source test data. [District Rule 2201] Federally Enforceable Through Title V Permit
22. Emission rates shall not exceed any of the following: PM10: 109.5 lb/day, SOx: 94.5 lb/day, NOx (as NO2): 54.0 lb/day and 9855 lb/year, VOC: 9.0 lb/day, CO: 56.3 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
23. Emission rates shall not exceed any of the following: PM10: 0.073 lb/MMBtu, or SOx (as SO2): 0.063 lb/MMBtu or 9 ppmv @ 3%O2, or VOC: 0.006 lb/MMBtu. [District Rules 2201, 4305, 3406 and 4320] Federally Enforceable Through Title V Permit
24. Except during periods of startup and shutdown, emission rates shall not exceed any of the following: NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 50 ppmv @ 3% O2 or 0.0375 lb/MMBtu. [District Rules 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
25. During start-up and shutdown periods, emissions from the steam generator shall not exceed the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
26. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown. [District Rules 4305, 5.5.6 and 4306, 5.3] Federally Enforceable Through Title V Permit
27. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4306, 3.25 and 3.22] Federally Enforceable Through Title V Permit
28. Compliance with NOx, CO and PM10 emissions limits (lb/MM Btu or ppmv) shall be demonstrated by source testing, at startup and at least once every twelve (12) months thereafter. 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 2201, 4305 and 4306] Federally Enforceable Through Title V Permit
29. If required, compliance with the scrubber control efficiency requirement shall be demonstrated within 60 days of startup and at least once every twelve (12) months thereafter. [District Rule 2201]
30. Whenever the unit is switched to scrubbed operation, compliance source testing for SOx 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
31. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, stack gas velocities - EPA Method 2, stack gas moisture content - EPA Method 4, SOx (lb/MMBtu) - ARB Method 100 and EPA Method 19, EPA Method 6, and fuel gas sulfur content - ASTM D3246 or double GC for H2S and mercaptans, PM10 (lb/scf) - EPA Methods 5, 201A, and 202. [District Rules 1081, 4305, and 4306] Federally Enforceable Through Title V Permit
32. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

33. 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 and 4306, 5.4] Federally Enforceable Through Title V Permit
34. 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
35. 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
36. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1, 4306, 5.5.1 and 4320] Federally Enforceable Through Title V Permit
37. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit
38. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 4305, 5.5.2, 4306, 5.5.2 and 4320] Federally Enforceable Through Title V Permit
39. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 5.5.5, 4306, 5.5.5 and 4320] Federally Enforceable Through Title V Permit
40. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
41. The permittee shall maintain records of: (1) the date and time of 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 and 4306, 6.1] Federally Enforceable Through Title V Permit
42. 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
43. Permittee shall maintain with the permit a current listing of all TEOR and TVC gas systems providing vapors to this steam generator and shall make such listing readily available for District inspection upon request [District NSR Rule] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

44. Permittee shall maintain records of H<sub>2</sub>S loading (lb H<sub>2</sub>S/min) and dates and duration of Brinks Mist Eliminator operation and shall make such records readily available for District. [District Rule 2201] Federally Enforceable Through Title V Permit
45. 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]
46. 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]
47. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 6.1, 4306, 6.1 and 4320] Federally Enforceable Through Title V Permit



## AUTHORITY TO CONSTRUCT

PERMIT NO: S-1141-558-9

ISSUANCE DATE: 07/21/2010

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

LOCATION: HEAVY OIL WESTERN STATIONARY SOURCE  
CA

SECTION: NW17 TOWNSHIP: 32S RANGE: 23E

**EQUIPMENT DESCRIPTION:**

MODIFICATION OF 62.5 MMBTU/HR NATURAL/TEOR/TVC GAS FIRED CE NATCO STEAM GENERATOR (NATIONAL BOARD #2398) WITH A NORTH AMERICAN MAGNA-FLAME MODEL GLE ULTRA LOW NOX BURNER, FGR AND O2 CONTROLLER: LIMIT FUEL GAS SULFUR CONTENT TO 5 GR-S/100 SCF OR REDUCE SOX BY 95% VIA SCRUBBING OR TO AN OUTLET CONCENTRATION NOT EXCEEDING 9 PPMVD @ 3% O2 FOR RULE 4320 COMPLIANCE

### CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District NSR Rule] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. This Authority to Construct shall be implemented according to the date proposed in the District-approved Rule 4320 Emission Control Plan. [District Rule 4320]
4. Records required by this permit shall be retained at the facility for a period of no less than 5 years and shall be made readily available for District inspection upon request. [District Rules 1070, 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-6600 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

  
DAVID WARNER, Director of Permit Services  
S-1141-558-9 - Jul 22 2010 9:24AM - CDD/MD : Joint Inspection NOT Required

5. All required source testing shall conform to the compliance testing procedures described in District Rule 1081 (Last Amended December 16, 1993). [District Rule 1081 and County Rules 108 (Kings), 108.1 (Fresno, Merced, San Joaquin, Tulare, Kern, and Stanislaus), and 110 (Madera)] Federally Enforceable Through Title V Permit
6. Copies of all fuel invoices, gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any noncertified fuel and record specific type of noncertified fuel used. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
7. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rule 2520, 9.5.2] Federally Enforceable Through Title V Permit
8. Particulate matter emissions shall not exceed 0.1 grain/dscf, calculated to 12% CO<sub>2</sub>, nor 10 lb/hr. [District Rules 4201, 3.1 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
9. Fuel H<sub>2</sub>S, total sulfur, and methane content shall be determined semi-annually using the following test methods H<sub>2</sub>S: ASTM D6228; total sulfur: ASTM D1072; ASTM D3246, double GC for H<sub>2</sub>S and mercaptans or ASTM D6228; and methane content: ASTM D1945. [District Rule 4320]
10. Each fuel source shall be tested semi-annually for sulfur content and higher heating value. If a fuel content test fails to show compliance, weekly testing is required until compliance is demonstrated for 8 consecutive weeks, after which semi-annual testing may resume. [District Rules 2520, 9.3.2 and 4320, 5.7.6] Federally Enforceable Through Title V Permit
11. If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value. [District Rules 2520, 9.3.2 and 4320] Federally Enforceable Through Title V Permit
12. If the unit is not fired on PUC-regulated natural gas and compliance is achieved through fuel sulfur content limitations, then the sulfur content of the fuel shall be determined by testing sulfur content at a location after all fuel sources are combined prior to incineration, or by performing mass balance calculations based on monitoring the sulfur content and volume of each fuel source. The sulfur content of the fuel shall be determined using the test methods referenced in this permit. [District Rules 2520, 9.3.2 and 4320, 5.7.6] Federally Enforceable Through Title V Permit
13. If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by: ASTM D 1826 or D1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 2520, 9.4.2, 4305, 6.2.1 and 4320] Federally Enforceable Through Title V Permit
14. Nitrogen oxide (NO<sub>x</sub>) emissions shall not exceed 140 lb/hr, calculated as NO<sub>2</sub>. [District Rules 4301, 5.2.2 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
15. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
16. 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
17. The requirements of SJVUAPCD Rule 4351 (Amended October 19, 1995) do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
18. Exhaust gas stack shall be equipped with adequate provisions facilitating the collection of gas samples consistent with EPA Test Methods. [District NSR Rule and 1081] Federally Enforceable Through Title V Permit
19. Flue gas recirculation system may be designed such that ambient air may be drawn into flue gas recirculation piping. [District Rule 2201] Federally Enforceable Through Title V Permit
20. When combustion air orifice and flue gas recirculation orifice have been used to demonstrate compliance they shall not be changed without a District-witnessed compliance demonstration. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

21. Permittee shall maintain records of duration of each start-up and shutdown, for a period of five years and make such records readily available for District inspection upon request. [District Rule 4306] Federally Enforceable Through Title V Permit
22. Emission rates shall not exceed: PM10: 144.0 lb/day or 52,560 lb/year, SOx: 189 lb/day or 68,985 lb/year, NOx (as NO2): 54.0 lb/day or 9855 lb/year, VOC: 9.0 lb/day or 3285 lb/year, CO: 40.5 lb/day or 14,783 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
23. Emission rates shall not exceed any of the following: PM10: 0.096 lb/MMBtu, SOx (as SO2) 0.126 lb/MMBtu, or VOC: 0.006 lb/MMBtu. [District Rule 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
24. Emission rates, except during startup and shutdown, shall not exceed any of the following: NOx (as NO2): 0.018 lb/MMBtu or 15 ppmv @ 3% O2, or CO: 37 ppmv @ 3% O2. [District Rule 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
25. Fuel gas sulfur content shall not exceed 5 gr S/100 dscf unless SOx emissions are reduced by 95% or to 9 ppmv SOx @ 3% O2 in the exhaust with scrubber. [District Rule 4320]
26. During start-up and shutdown periods, emissions from the steam generator shall not exceed the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
27. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rule 4306 and 4320] Federally Enforceable Through Title V Permit
28. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rules 4306 and 4320]
29. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
30. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
31. Compliance with SOx emission limits shall be demonstrated within 60 days of initial operation under this ATC. [District Rules 2201 and 4320]
32. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
33. Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit
34. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
35. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

36. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19; CO (ppmv) - EPA Method 10 or ARB Method 100; Stack gas oxygen (O<sub>2</sub>) - EPA Method 3 or 3A or ARB Method 100; stack gas velocities - EPA Method 2; Stack gas moisture content - EPA Method 4; SO<sub>x</sub> - EPA Method 6C or 8 or ARB Method 100; fuel gas sulfur as H<sub>2</sub>S content - EPA Method 11 or 15; and fuel hhv (MMBtu) - ASTM D 1826 or D 1945 in conjunction with ASTM D 3588. [District Rules 1081, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
37. 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, 4306 and 4320] Federally Enforceable Through Title V Permit
38. 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, 4306 and 4320] Federally Enforceable Through Title V Permit
39. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
40. 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 and 4306] Federally Enforceable Through Title V Permit
41. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
42. Permittee shall maintain with the permit a current listing of all TEOR and TVC gas systems providing vapors to this steam generator and shall make such listing readily available for District inspection upon request [District NSR Rule] Federally Enforceable Through Title V Permit
43. 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]
44. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and Rule 4320]
45. All records shall be maintained for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

# **ATTACHMENT D**

**Facility Comments/District Response**

## Facility Comments and District Response

The District received comments on January 18, 2013 from Chevron USA on their renewed Title V permit issued January 31, 2012.

### **S-1141-0-3**

#### Facility Comment:

Condition 45: *The reporting periods for the Report of Required Monitoring and the Compliance Certification Report begin November 30 of every year, unless alternative dates are approved by the District Compliance Division. These reports are due within 30 days after the end of the reporting period. [District Rule 2520]*

Allow the facility to submit the Report of Required Monitoring and the Compliance Certification Report on the next business day if the due date falls on a day the District is closed for business.

Proposed Text: The reporting periods of the Report of Required monitoring and Compliance Certification Report begin November 30 of every year, unless alternative dates are approved by the District Compliance Division. These reports are due on the 30 days after the end of the reporting period. If the due date falls on a day that the SJVAPCD is closed, they will be due on the next business day. [District Rule 2520]

#### District Response:

Condition 45 will be modified as proposed.

#### Facility Comment:

Add District Rule 4320 to the rule reference of conditions 49 through 56.

*49. Steam Generator General Condition: Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rule 4306, 3.25 and 3.22, and 4320, 3.25 and 3.29]*

*50. Steam Generator General Condition: Duration of start-up or shutdown shall not exceed two hours each per occurrence. [District Rules 4305, 5.5; and 4306, 5.3; and 4320, 5.6]*

51. *Steam Generator General Condition: Permittee shall maintain records of duration of each start-up and shutdown. [District Rules 4305, 6.1; and 4306, 6.1.4; 4320, 6.1.4]*
52. *Steam Generator General Condition: Annual tests results submitted to the District from unit(s) representing a group of units may be used to demonstrate compliance with NO<sub>x</sub> or CO limits of this permit, provided the selection of the representative unit(s) is approved by the APCO prior to testing. Should any of the representative units exceed the required NO<sub>x</sub> or CO emission limits of this permit, each of the units in the group shall demonstrate compliance by emissions testing within 90 days of the failed test. [District Rules 2520, 9.3.2; 4305, 6.3.2, and 4306, 6.3.2; and 4320, 6.3.2]*
53. *Steam Generator General Condition: The following conditions must be met for representative unit(s) to be used to test for NO<sub>x</sub> or CO limits for a group of units: 1) all units are initially source tested and emissions from each unit in group are less than 90% of the permitted value and vary 25% or less from the average of all runs, 2) all units in group are similar in terms of rated heat input (rating not to exceed 100 MMBtu/hr), make and series, operation conditions, and control method, and 3) the group is owned by a single owner and located at a single stationary source. [District Rules 2520, 9.3.2 and 4305, 6.3.2; and 4320, 6.3.2]*
54. *Steam Generator General Condition: All units in a group for which representative units are source for NO<sub>x</sub> or CO emissions shall have received the same maintenance and tune-up procedures as the representative unit(s). These tune-up procedures shall be completed according to District Rule 4304 (Adopted October 19, 1995) and tune-up test results shall show comparable results for each unit in the group. Records shall be maintained for each unit of the group including all preventative and corrective maintenance work done. [District Rule 2520, 9.3.2; 4305, 6.3.2, and 4306, 6.3.2 and 4320, 6.3.2]*
55. *Steam Generator General Condition: All units in a group for which representative units are source tested for NO<sub>x</sub> or CO emissions of this permit shall be fired on the same fuel type during the entire compliance period. If a unit switches for any time to an alternate fuel type (e.g. from natural gas to oil) then that unit shall not be considered part of the group and shall be required to undergo a source test for all fuel types used, within one year of the switch. [District Rules 2520, 9.3.2; 4305, 6.3.2, and 4306, 6.3.2; and 4320, 6.3.2]*
56. *Steam Generator General Condition: The number of representative units source tested for NO<sub>x</sub> emissions shall be at least 30% of the total number of units in the group. The units included in the 30% shall be rotated, so that in 3 years, all units in the entire group will have been tested at least once. [District Rule 2520, 9.3.2; 4305, 6.3.2, and 4306, 6.3.2; and 4320, 6.3.2]*

65. *Steam Generator Source Testing Condition: All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 5.5.2; and 4306, 5.5.2; and 4320, 5.8.2] Y*
66. *Steam Generator Source Testing Condition: The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1; and 4306, 5.5.1; and 4320, 5.8.1] Y*
67. *Steam Generator Source Testing Condition: 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; 4320, 5.8.5] Y*
69. *Steam Generator Source Testing Condition: Source testing to measure NOx and CO emissions from this unit while fired on natural gas shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 6.3.1; and 4306, 6.3.1; and 4320, 6.3.1]*
78. *Steam Generator Periodic Monitoring Condition: The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 5.4.2; and 4306, 5.4.2; and 4320, 5.7.2] Y*
79. *Steam Generator Periodic Monitoring Condition: If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation,*

*show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 5.4.2 and 4306, 5.4.2; and 4320, 5.7.2] Y*

*80. Steam Generator Periodic Monitoring Condition: 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, 5.4.2 and 5.5.4; and 4306, 5.4.2 and 5.5.4; and 4320, 5.7.2 and 5.8.4] Y*

*81. Steam Generator Periodic Monitoring Condition: 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, 5.4.2; and 4306, 5.4.2; and 4320, 5.7.2] Y*

District Response:

The requirements for representative units match those found in District Rule 4320. Therefore, the rule reference for these conditions will include District Rule 4320.

Facility Comment:

Identify conditions 57 and 58 as Federally Enforceable.

*57. Steam Generator General Condition: 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] N*

*58. Steam Generator General Condition: 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] N*

District Response:

District Rule 4320 has been SIP approved and these conditions will be designated as federally enforceable.

Facility Comment:

Remove test methods from steam generator fuel monitoring conditions and list the test methods as a source testing condition.

Proposed Modified Conditions:

60. *Steam Generator Fuel Monitoring Condition: When complying with SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using ~~EPA Method 6B; or Method 8 or ARB Method 1-100; or, for units using gaseous fuel scrubbed for sulfur pre-combustion, a grab sample analysis by GC-FPD/TCD performed in the laboratory and EPA Method 19 to calculated emissions~~ methods specified in "Steam Generator Conditions – Source Testing Condition". Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every thirty-six months; however, annual source testing shall resume if any test fails to show compliance. [District Rule 2520, 9.3.2] Y*

61. *Steam Generator Fuel Monitoring Condition: If the unit is fired on noncertified gaseous fuel and compliance with SOx emission limits is achieved through fuel sulfur content limitations, then the sulfur content of the gaseous fuel being fired in the unit shall be determined using ~~ASTM D 6288, D 1072, D 3031, D 4084, D 3246, Double GC, or grab sample analysis by GC-FPD/TCD performed in the laboratory~~ methods specified in "Steam Generator Conditions – Source Testing Condition". [District Rule 2520, 9.3.2] Y*

62. *Steam Generator Fuel Monitoring Condition: If fuel analysis is used to demonstrate compliance with conditions of this permit, the fuel higher heating value for each fuel shall be certified by a third party fuel supplier or determined by: ~~ASTM-D 1826, D 1945 in conjunction with ASTM D 3588 for gaseous fuels~~ methods specified in "Steam Generator Conditions – Source Testing Condition". [District Rule 2520, 9.3.2 and 4305, 6.2.1] Y*

New Condition:

The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19; CO (ppmv) - EPA Method 10 or ARB Method 100; SOx (lb/MMBtu) - EPA Method 6, 6C, 8 or ARB Method 100; Stack Gas

Oxygen - EPA Method 3 or 3A or ARB Method 100; Stack Gas Velocity (ft/min) - EPA Method 2; Stack Gas Moisture Content (%) - EPA Method 4; Fuel Gas Sulfur Content – EPA Method 11 or EPA Method 15 or ASTM D6288, D1072, D3031, D4084, D3246, or grab sample analysis by double GC; Fuel Gas h<sub>h</sub>v - ASTM D1826 or D1945 in conjunction with ASTM D3588; PM10 (lb/scf) - EPA Methods 5 (front half), 201A, and/or 202, CARB Method 5, or any combination of these PM10 methods. [District Rules 2520, 4305, 4306, and 4320]

Conditions replaced by the new condition above:

*73. Steam Generator Source Testing Condition: 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 and 4306, 6.2] Y*

*74. Steam Generator Source Testing Condition: CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 6.2 and 4306, 6.2] Y*

*75. Steam Generator Source Testing Condition: 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 and 4306, 6.2] Y*

*76. Steam Generator Source Testing Condition: Stack gas moisture shall be determined using EPA Method 4. [District Rules 4305, 6.2 and 4306, 6.2] Y*

*77. Steam Generator Source Testing Condition: Stack gas velocity shall be determined using EPA Method 2. [District Rules 4305, 6.2 and 4306, 6.2] Y*

District Response:

Test methods will be combined into one condition as proposed to further streamline the facility wide permit. Conditions 60 thru 62 will be modified as proposed. Conditions 73 through 77 are included in the new proposed condition and were removed from the permit requirements.

Facility Comment:

Modify condition 64 to account for steam generators using wet flue gas scrubbers.

*64. Steam Generator Fuel Monitoring Condition: Compliance with SO<sub>x</sub> emission limits shall be demonstrated by fuel gas sulfur contents analysis at the time of NO<sub>x</sub> testing, except for units fired by natural gas purchased from a PUC regulated utility or operating with a flue gas scrubber. [District Rule 1081] Y*

District Response:

This condition has been revised as proposed.

Facility Comment:

Revise rule reference for Condition 113 to show the condition is federally enforceable.

District Response:

The designation of federally enforceable was inadvertently left off this condition. Therefore, this condition will be revised to designate it federally enforceable.

Facility Comment:

Modify condition 117 to be consistent with wording approved in C-311 renewal.

117. *Casing Collection System Condition: An operator shall not operate a steam-enhanced crude oil production well unless the operator complies with either of the following requirements: 1) The steam-enhanced crude oil production well vent is closed and the front line production equipment downstream of the wells that carry produced fluids (crude oil or mixture of crude oil and water) is connected to a VOC collection and control system. The well vent may be temporarily opened during periods of attended service or repair of the well provided such activity is done as expeditiously as possible with minimal spillage of material and VOC emissions to the atmosphere, or 2) The steam-enhanced crude oil production well vent is open and the well vent is connected to a VOC collection and control system.* [District Rule 4401, 5.1] Y

District Response:

This condition has been revised as proposed.

Facility Comment

Correct Rule Reference of condition #129.

129. *Casing Collection System Conditions: Permittee shall inspect all unsafe-to-monitor components during each turnaround.* [District Rule 4401, ~~5.4.7~~ 5.4.5] Y

District Response:

The rule reference has been updated as proposed.

Facility Comment:

Correct Table reference in condition #139.

*139. Casing Collection System Conditions: The leak rate, measured after leak minimization has been performed, shall be used to determine the applicable repair period specified in Table 4 of Rule 4401 and the time of initial leak detection shall be the start of the repair period specified in ~~Table 3~~ Table 4 of Rule 4401. [District Rule 4401, 5.5.5] Y*

District Response:

The table reference has been updated as proposed.

Facility Comment:

Fix typo in condition 141.

141. ....6) The ~~identify~~ identity and location of essential components...

District Response:

The typo has been fixed.

Facility Comment:

Revised Rule Reference for the following conditions,

152. From District Rule 4702, 5.7.4 to District Rule 4702, 5.9.4

153. From District Rule 4702, 5.7.2 to District Rule 4702, 5.9.2

155. From District Rule 4702, 5.7.3 to District Rule 4702, 5.7.3

156. From District Rule 4702, 5.7 to District Rule 4702, 6.2.3

District Response:

Conditions rule reference has been updated.

**S-1141-549, -550, -551, -552, -553, -555, -556, -557, and -558**

**Facility Comment:**

Modify recently issued PTOs to make the PTOs consistent with new streamlined permit format.

**District Response:**

During the conversion of ATCs S-1141-549-11, -550-9, -551-8, -552-8, -553-8, -556-13, -557-11, and -558-9 conditions from the ATCs were inadvertently left off the PTOs. The PTOs for these units will be modified to add the appropriate permit requirements. Requirements specific to each unit such as NSR and PSD requirements will be listed on the permits. Also included on are conditions referencing applicable prohibitory rule requirements found on the facility wide permit.

**Facility Comment:**

Move all scrubber conditions listed on S-1141-555, -556 and -557 to the low order steam generator permit.

**District Comment:**

In addition to the previously discussed modification, the conditions for the shared scrubber will be listed on unit S-1141-555.