



SEP 28 2012

Charles Comfort  
TRC Operating Company  
PO Box 227  
Taft, CA 93268

**RE: Notice of Final Action - Authority to Construct**  
**Project Number: S-1121363**

Dear Mr. Comfort:

The Air Pollution Control Officer has issued Authority to Construct permits to TRC Operating Company for the addition of a Specific Limiting Condition (SLC) for SO<sub>x</sub> for three 65 MMBtu/hr steam generators, at the heavy oil production stationary source in the western Kern County fields.

Enclosed are copies of the Authority to Construct permits and a copy of the notice of final action to be published approximately three days from the date of this letter.

Notice of the District's preliminary decision to issue this Authority to Construct was published on July 9, 2012. The District's analysis of the proposal was also sent to CARB and US EPA Region IX on August 8, 2012. No comments were received following the District's preliminary decision on this project.

Thank you for your cooperation in this matter. If you have any questions, please contact Mr. Leonard Scandura at (661) 392-5500.

Sincerely,

David Warner  
Director of Permit Services

DW: RUE/cm

Enclosures



SEP 28 2012

Gerardo C. Rios (AIR 3)  
Chief, Permits Office  
Air Division  
U.S. E.P.A. - Region IX  
75 Hawthorne Street  
San Francisco, CA 94105

**RE: Notice of Final Action - Authority to Construct**  
**Project Number: S-1121363**

Dear Mr. Rios:

The Air Pollution Control Officer has issued Authority to Construct permits to TRC Operating Company for the addition of a Specific Limiting Condition (SLC) for SOx for three 65 MMBtu/hr steam generators, at the heavy oil production stationary source in the western Kern County fields.

Please note that, after review of applicant data submitted during the public comment period, the Federal Major Modification calculation was revised to include baseline actual emissions (BAE) and projected actual emissions (PAE). These quantities were previously assumed to be zero and the post-project potential to emit (PE2), respectively. The revised calculation indicated that the project was not a Federal Major Modification.

Enclosed are copies of the Authority to Construct permits and a copy of the notice of final action to be published approximately three days from the date of this letter.

Notice of the District's preliminary decision to issue this Authority to Construct was published on July 9, 2012. The District's analysis of the proposal was also sent to CARB and US EPA Region IX on August 8, 2012. No comments were received following the District's preliminary decision on this project.

Thank you for your cooperation in this matter. If you have any questions, please contact Mr. Leonard Scandura at (661) 392-5500.

Sincerely,

David Warner  
Director of Permit Services

DW: RUE/cm

Enclosures

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

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

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

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



**SEP 28 2012**

Mike Tollstrup, Chief  
Project Assessment Branch  
Stationary Source Division  
California Air Resources Board  
PO Box 2815  
Sacramento, CA 95812-2815

**RE: Notice of Final Action - Authority to Construct  
Project Number: S-1121363**

Dear Mr. Tollstrup:

The Air Pollution Control Officer has issued Authority to Construct permits to TRC Operating Company for the addition of a Specific Limiting Condition (SLC) for SO<sub>x</sub> for three 65 MMBtu/hr steam generators, at the heavy oil production stationary source in the western Kern County fields.

Enclosed are copies of the Authority to Construct permits and a copy of the notice of final action to be published approximately three days from the date of this letter.

Notice of the District's preliminary decision to issue this Authority to Construct was published on July 9, 2012. The District's analysis of the proposal was also sent to CARB and US EPA Region IX on August 8, 2012. No comments were received following the District's preliminary decision on this project.

Thank you for your cooperation in this matter. If you have any questions, please contact Mr. Leonard Scandura at (661) 392-5500.

Sincerely,

David Warner  
Director of Permit Services

DW: RUE/cm

Enclosures

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

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Bakersfield, CA 93308-9725  
Tel: 661-392-5500 FAX: 661-392-5585

Bakersfield Californian

**NOTICE OF FINAL ACTION  
FOR THE ISSUANCE OF AUTHORITY  
TO CONSTRUCT PERMITS**

NOTICE IS HEREBY GIVEN that the Air Pollution Control Officer has issued Authority to Construct permits to TRC Operating Company for the addition of a Specific Limiting Condition (SLC) for SO<sub>x</sub> for three 65 MMBtu/hr steam generators, at the heavy oil production stationary source in the western Kern County fields.

No comments were received following the District's preliminary decision on this project.

The application review for Project #S-1121363 is available for public inspection at [http://www.valleyair.org/notices/public\\_notices\\_idx.htm](http://www.valleyair.org/notices/public_notices_idx.htm) and the **SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT, 34946 FLYOVER COURT, BAKERSFIELD, CA 93308.**



## AUTHORITY TO CONSTRUCT

**PERMIT NO:** S-3088-7-8

**ISSUANCE DATE:** 09/20/2012

**LEGAL OWNER OR OPERATOR:** TRC CYPRESS GROUP LLC

**MAILING ADDRESS:** P O BOX 227  
TAFT, CA 93268

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

**SECTION:** SW22 **TOWNSHIP:** 32S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**

MODIFICATION OF 62.5 MMBTU/HR NATURAL GAS/WASTE GAS FIRED STEAM GENERATOR WITH NORTH AMERICAN MAGNA-FLAME G-LE ULTRA LOW NOX BURNER AND FLUE GAS RECIRCULATION (CYPRESS LEASE): CREATE SOX SLC WITH PERMIT UNITS '-7, '-20, AND '-24

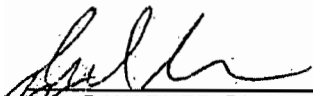
### CONDITIONS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. 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]
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
5. Emissions rates from the unit shall not exceed any of the following limits: 14 ppmv NOx @ 3% O2 or 0.017 lb-NOx/MMBtu, 0.037 lb-PM10/MMBtu, 104 ppmv CO @ 3% O2 or 0.0757 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305, and 4306]
6. Combined SOx emissions from steam generators S-3088-7, '-20, and '-24 shall not exceed 328.5 lb/day. [District Rule 2201]
7. Fuel gas sulfur content shall not exceed 1 gr S/100 scf unless SOx is reduced by 95% or to 9 ppmv SOx @ 3% O2 in exhaust with scrubber. [District Rules 2201 and 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-3088-7-8; Sep 20 2012 2:11PM - EDGEHILR : Joint Inspection NOT Required

8. 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 and 4306]
9. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305 and 4306]
10. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305 and 4306]
11. 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]
12. 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 and 4306]
13. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305 and 4306]
14. Stack gas oxygen (O<sub>2</sub>) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305 and 4306]
15. 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]
16. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
17. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306]
18. 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 performing the notification and testing required by this condition. [District Rules 4305 and 4306]
19. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306]
20. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 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]

CONDITIONS CONTINUE ON NEXT PAGE

21. Permittee shall determine sulfur content of combusted gas weekly for eight consecutive weeks. After demonstrating compliance for eight consecutive weeks testing may be conducted on a quarterly basis. Weekly sulfur testing shall resume if quarterly testing does not indicate compliance. Weekly gas analysis shall be performed using Draeger tubes and quarterly analysis using ASTM method D3246 or double GC for H<sub>2</sub>S and mercaptans. First of the weekly gas analyses shall be done using laboratory analysis. [District Rules 1081, 2201, and 4320]
22. Compliance with fuel sulfur limit(s) can be demonstrated either by monitoring sulfur content at location(s) after all fuel sources are combined prior to incineration, or by monitoring the sulfur content and volume of each fuel source and performing mass balance calculations. Records of monitoring locations, detected sulfur concentrations, and mass balance calculations, if necessary, shall be maintained and kept onsite and made readily available for District inspection upon request. [District Rules 1081, 2201, and 4320]
23. The following calculation shall be used to show compliance with the SO<sub>x</sub> daily emissions limit:  $\text{lb SO}_x \text{ emitted/day} = (\text{volume of gas incinerated per day, in scf}) \times (\text{ppm H}_2\text{S prior to incineration}) \times 0.00000017$ . [District Rule 2201]
24. Records of weekly and quarterly test results for sulfur content, amounts of natural gas and waste gas combusted (in scf), higher heating values of natural gas and waste gas, and calculations to verify compliance with the sulfur SLC limit shared by units '-7, '-20, and '-24 shall be retained on-site for a period of at least five years and made readily available for District inspection upon request. [District Rules 1070, 2201, and 4320]
25. 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, and 4306]
26. 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]
27. On and after July 1, 2010, the permittee shall submit an analysis showing the fuel's sulfur content at least once every year. Valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy this requirement, provided they establish the fuel parameters mentioned above. [District Rule 4320]
28. 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]



## AUTHORITY TO CONSTRUCT

**PERMIT NO:** S-3088-8-12

**ISSUANCE DATE:** 09/20/2012

**LEGAL OWNER OR OPERATOR:** TRC CYPRESS GROUP LLC

**MAILING ADDRESS:** P O BOX 227  
TAFT, CA 93268

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

**SECTION:** SW22 **TOWNSHIP:** 32S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**

MODIFICATION OF THERMALLY ENHANCED OIL RECOVERY OPERATION WITH 150 STEAM ENHANCED CRUDE OIL PRODUCTION WELLS AND 665 SCFM AIR ASSIST STANDBY FLARE, WITH VAPOR PIPING FROM TANKS S-3088-9 THROUGH -16, -21 AND -22, GAS/LIQUID SEPARATORS, COMPRESSORS, HEAT EXCHANGERS, CONDENSATE PUMPS, FOUR SULFATREAT HP PACKED VESSELS, AND INCINERATION IN STEAM GENERATORS S-3088-7 OR -20, OR STANDBY FLARE. ADD STEAM GENERATOR 3088-24 AS AN ALLOWED INCINERATION DEVICE

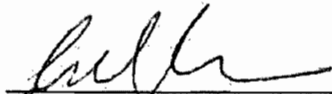
### CONDITIONS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. VOC content of the vapor control system gas shall not exceed 10% by weight as determined in accordance with the latest revision of ASTM Methods D1945 for gases and South Coast AQMD Method 304-91 or the latest revision of ASTM Method E-168, E-169 or E-260 for liquids. [District Rules 2201 and 4401]
3. Thermally enhanced oil recovery operation shall include no more than 150 cyclically steam enhanced wells. [District Rule 2201]
4. Liquid from separators, heat exchangers, condensate collection vessels, compressor knockouts, and flare shall be piped only in closed piping to tanks with vapor control. [District Rule 2201]
5. Vapor control system gas shall be incinerated in steam generator S-3088-7, S-3088-20, S-3088-24 or standby John Zink model STF-LH-336-6/15 air assisted flare when steam generators are not operational. Flare shall be equipped with automatic re-ignition system. [District Rule 2201]
6. Flare shall operate smokelessly (i.e. visible emissions shall be less than 1/4 Ringelmann). [District Rule 4101]

CONDITIONS CONTINUE ON NEXT PAGE

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Seyed Sadredin, Executive Director / APCO



DAVID WARNER, Director of Permit Services

09/20/12 8:12 | Sep 20 2012 7:12PM - EDGEHLR - Joint Inspection NOT Required



7. No more than 0.958 MM scf/day of TEOR and/or TVR gas shall be incinerated in standby flare. [District Rule 2201]
8. Standby flare emissions shall not exceed any of the following limits: NOx: 0.068 lb/MMBtu, PM10: 0.008 lb/MMBtu, CO: 0.370 lb/MMBtu or VOC: 0.063 lb/MMBtu. [District Rule 2201]
9. SOx emissions from flare shall not exceed 207.6 lb/day based on mass balance calculation with H2S content and daily volume of the TEOR and/or TVR gas combusted. [District Rule 2201]
10. When the standby flare is being used, daily records shall be maintained of scrubbed vapor control system gas volume flow rate and sulfur content. [District Rule 2201]
11. The operator 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]
12. By January 30 of each year, the operator shall submit to the APCO for approval, in writing, an annual report indicating any changes to the existing, approved OMP. [District Rule 4401]
13. In accordance with the approved OMP, the operator shall meet all applicable operating, inspection and re-inspection, maintenance, component identification, record keeping, and notification requirements of Rule 4401 for all steam enhanced crude oil production wells at this facility except for those wells and components specifically exempted in Section 4.0 of Rule 4401. [District Rule 4401]
14. The inspection and re-inspection requirements set forth in Sections 5.8.1 through 5.8.5 of Rule 4401 shall not apply to components exclusively handling gas/vapor or liquid with a VOC content of 10% by weight or less [District Rule 4401]
15. The operator shall be in violation of Rule 4401 if any District inspection, or any operator inspection that is required by this rule, demonstrates that one or more of the leak standard conditions set forth in section 5.6.2 exists. [District Rule 4401, 5.6.1]
16. Operator shall conduct quarterly sampling of vapor recovery system gas. If vapor recovery system gas is shown to be less than 10% VOC by weight for 8 consecutive quarterly sampling, sampling shall only be required annually. [District Rule 2201]
17. The sulfur content of the scrubbed vapor control system gas shall be tested at least monthly. [District Rule 1081]
18. The sulfur content of the vapor control system gas being combusted in the flare shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 1081]
19. The flare flame shall be present at all times when combustible gases are vented through the flare. [District Rule 4311]
20. The flare outlet shall be equipped with an automatic ignition system, or, shall operate with a pilot flame present at all times when combustible gases are vented through the flare, except during purge periods for automatic-ignition equipped flares. [District Rule 4311]
21. Except for flares equipped with a flow-sensing ignition system, a heat sensing device such as a thermocouple, ultraviolet beam sensor, infrared sensor, or an equivalent device, capable of continuously detecting at least one pilot flame or the flare flame is present shall be installed and operated. [District Rule 4311]
22. Flares that use flow-sensing automatic ignition systems and which do not use a continuous flame pilot shall use purge gas for purging. [District Rule 4311]
23. Permittee shall maintain a record of all vapor control system gas sample analysis conducted for VOC and sulfur content, the volume flow rate to the flare, and a current listing of the steam enhanced wells with casing vents connected to the well vent collection and control system. [District Rule 2201]
24. All records shall be maintained for a period of at least five years and made available for District inspection upon request. [District Rule 1070]



## AUTHORITY TO CONSTRUCT

**PERMIT NO:** S-3088-20-6

**ISSUANCE DATE:** 09/20/2012

**LEGAL OWNER OR OPERATOR:** TRC CYPRESS GROUP LLC

**MAILING ADDRESS:** P O BOX 227  
TAFT, CA 93268

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

**SECTION:** SW22 **TOWNSHIP:** 32S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**

MODIFICATION OF 62.5 MMBTU/HR C.E. NATCO NATURAL GAS/WASTE GAS-FIRED STEAM GENERATOR WITH A NORTH AMERICAN MODEL MAGNA-FLAME G-LE, ULTRA LOW NOX BURNER AND FLUE GAS RECIRCULATION - CYPRESS LEASE: CREATE SOX SLC WITH PERMIT UNITS '-7, '-20, AND '-24

### CONDITIONS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. 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]
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
5. Combined SOx emissions from steam generators S-3088-7, '-20, and '-24 shall not exceed 328.5 lb/day. [District Rule 2201]
6. Fuel gas sulfur content shall not exceed 1 gr S/100 scf unless SOx is reduced by 95% or to 9 ppmv SOx @ 3% O2 in exhaust with scrubber. [District Rules 2201 and 4320]
7. Emissions from the natural gas-fired unit shall not exceed any of the following limits: 14 ppmvd NOx @ 3% O2 or 0.017 lb-NOx/MMBtu, 0.0076 lb-PM10/MMBtu, 47.5 ppmvd CO @ 3% O2 or 0.035 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305, and 4306]

CONDITIONS CONTINUE ON NEXT PAGE

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Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services

S-3088-20-0 Sep 20 2012 2:12PM - EDGEHILR : Joint Inspection NOT Required

8. 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 and 4306]
9. 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 performing the notification and testing required by this condition. [District Rules 4305 and 4306]
10. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306]
11. 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]
12. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305 and 4306]
13. 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 and 4306]
14. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305 and 4306]
15. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081]
16. 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 and 4306]
17. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305 and 4306]
18. Stack gas oxygen (O<sub>2</sub>) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305 and 4306]
19. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305 and 4306]
20. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]

CONDITIONS CONTINUE ON NEXT PAGE

21. Permittee shall determine sulfur content of combusted gas weekly for eight consecutive weeks. After demonstrating compliance for eight consecutive weeks testing may be conducted on a quarterly basis. Weekly sulfur testing shall resume if quarterly testing does not indicate compliance. Weekly gas analysis shall be performed using Draeger tubes and quarterly analysis using ASTM method D3246 or double GC for H<sub>2</sub>S and mercaptans. First of the weekly gas analyses shall be done using laboratory analysis. [District Rules 1081, 2201, and 4320]
22. Compliance with fuel sulfur limit(s) can be demonstrated either by monitoring sulfur content at location(s) after all fuel sources are combined prior to incineration, or by monitoring the sulfur content and volume of each fuel source and performing mass balance calculations. Records of monitoring locations, detected sulfur concentrations, and mass balance calculations, if necessary, shall be maintained and kept onsite and made readily available for District inspection upon request. [District Rules 1081, 2201, and 4320]
23. The following calculation shall be used to show compliance with the SO<sub>x</sub> daily emissions limit:  $\text{lb SO}_x \text{ emitted/day} = (\text{volume of gas incinerated per day, in scf}) \times (\text{ppm H}_2\text{S prior to incineration}) \times 0.00000017$ . [District Rule 2201]
24. Records of weekly and quarterly test results for sulfur content, daily amounts of natural gas and waste gas combusted (in scf), higher heating values of natural gas and waste gas, and calculations to verify compliance with the sulfur SLC limit shared by units '-7, '-20, and '-24 shall be retained on-site for a period of at least five years and made readily available for District inspection upon request. [District Rules 1070, 2201, and 4320]
25. 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, and 4306]
26. 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]
27. On and after July 1, 2010, the permittee shall submit an analysis showing the fuel's sulfur content at least once every year. Valid purchase contracts, supplier certifications, tariff sheets, or transportation contacts may be used to satisfy this requirement, provided they establish the fuel parameters mentioned above. [District Rule 4320]
28. 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]



## AUTHORITY TO CONSTRUCT

**PERMIT NO:** S-3088-24-4

**ISSUANCE DATE:** 09/20/2012

**LEGAL OWNER OR OPERATOR:** TRC CYPRESS GROUP LLC

**MAILING ADDRESS:** P O BOX 227  
TAFT, CA 93268

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

**SECTION:** SW22 **TOWNSHIP:** 32S **RANGE:** 23E

**EQUIPMENT DESCRIPTION:**

MODIFICATION OF 62.5 MMBTU/HR C.E. NATCO NATURAL GAS/WASTE GAS FIRED STEAM GENERATOR (#92 DIS# 27572-80) WITH NORTH AMERICAN MAGNA FLAME GLE ULTRA LOW NOX BURNER (CYPRESS LEASE): CREATE SOX SLC WITH PERMIT UNITS '-7, '-20, AND '-24 AND ACCEPT TEOR WASTE GAS FROM 3088-8 FOR INCINERATION

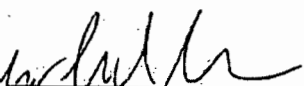
### CONDITIONS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201]
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. 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]
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
5. Combined SOx emissions from steam generators S-3088-7, '-20, and '-24 shall not exceed 328.5 lb/day. [District Rule 2201]
6. Fuel gas sulfur content shall not exceed 1 gr S/100 scf unless SOx is reduced by 95% or to 9 ppmv SOx @ 3% O2 in exhaust with scrubber. [District Rules 2201 and 4320]
7. Emission rates from the unit shall not exceed any of the following limits: 0.058 lb-PM10/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rule 2201]

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-3088-24-4, Sep 20 2012 2:12PM - EDGEHLR Joint Inspection NOT Required

8. Except during startup and shutdown, emission rates from the unit shall not exceed any of the following limits: 14 ppmv NO<sub>x</sub> @ 3% O<sub>2</sub>. or 47 ppmv CO @ 3% O<sub>2</sub>. [District Rules 2201, 4305, and 4306]
9. Emission rates during startup and shutdown shall not exceed: NO<sub>2</sub> - 140 pounds per hour or 0.14 pounds per MMBtu. [District Rules 4301 and 4405]
10. Emission rates shall not exceed any of the following: NO<sub>x</sub> (as NO<sub>2</sub>): 54.0 lb/day or 9855 lb/year, CO: 52.5 lb/day. [District Rule 2201]
11. 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 4305 and 4306]
12. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305 and 4306]
13. Source testing to measure natural gas-combustion NO<sub>x</sub> and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305 and 4306]
14. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305 and 4306]
15. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305 and 4306]
16. 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]
17. 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 and 4306]
18. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305 and 4306]
19. Stack gas oxygen (O<sub>2</sub>) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305 and 4306]
20. 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]
21. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
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 and 4306]

CONDITIONS CONTINUE ON NEXT PAGE

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 performing the notification and testing required by this condition. [District Rules 4305 and 4306]
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 and 4306]
25. 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]
26. Permittee shall determine sulfur content of combusted gas weekly for eight consecutive weeks. After demonstrating compliance for eight consecutive weeks testing may be conducted on a quarterly basis. Weekly sulfur testing shall resume if quarterly testing does not indicate compliance. Weekly gas analysis shall be performed using Draeger tubes and quarterly analysis using ASTM method D3246 or double GC for H<sub>2</sub>S and mercaptans. First of the weekly gas analyses shall be done using laboratory analysis. [District Rules 1081, 2201, and 4320]
27. Compliance with fuel sulfur limit(s) can be demonstrated either by monitoring sulfur content at location(s) after all fuel sources are combined prior to incineration, or by monitoring the sulfur content and volume of each fuel source and performing mass balance calculations. Records of monitoring locations, detected sulfur concentrations, and mass balance calculations, if necessary, shall be maintained and kept onsite and made readily available for District inspection upon request. [District Rules 1081, 2201, and 4320]
28. The following calculation shall be used to show compliance with the SO<sub>x</sub> daily emissions limit:  $\text{lb SO}_x \text{ emitted/day} = (\text{volume of gas incinerated per day, in scf}) \times (\text{ppm H}_2\text{S prior to incineration}) \times 0.00000017$ . [District Rule 2201]
29. Records of weekly and quarterly test results for sulfur content, daily amounts of natural gas and waste gas combusted (in scf), higher heating values of natural gas and waste gas, and calculations to verify compliance with the sulfur SLC limit shared by units '-7, '-20, and '-24 shall be retained on-site for a period of at least five years and made readily available for District inspection upon request. [District Rules 1070, 2201, and 4320]
30. 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, and 4306]
31. 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]
32. On and after July 1, 2010, the permittee shall submit an analysis showing the fuel's sulfur content at least once every year. Valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy this requirement, provided they establish the fuel parameters mentioned above. [District Rule 4320]
33. 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]