

NOV 08 2010

Mr. Timothy Alburger Seneca Resources 2131 Mars Court Bakersfield, CA 93308

Re:

Notice of Final Decision - ATC / Certificate of Conformity

Facility # S-1114 **Project # S1100733** 

Dear Mr. Alburger:

The Air Pollution Control Officer has issued Authority to Construct permits to Seneca Resources for its thermally enhanced oil recovery operation within the Midway Sunset Oilfield, California. Seneca proposes to modify one steam generator by lowering the NOx limit and limiting the fuel gas sulfur content in order to comply with Rule 4320. Seneca is also proposing to install two new identical steam generators that will share the same daily and annual potential emissions as the one being modified.

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 the Authority to Construct permits with Certificate of Conformity was published on September 7, 2010. The District's analysis of the proposal was also sent to US EPA Region IX on September 7, 2010. 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, Permit Services Manager, at (661) 392-5500.

rcerely,

David Warner

Director of Permit Services

DW: KR/cm

**Enclosures** 

Seved Sadredin

Executive Director/Air Pollution Control Officer



NOV 08 2010

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

Re: Notice of Final Decision - ATC / Certificate of Conformity

Facility # S-1114 Project # S1100733

Dear Mr. Rios:

The Air Pollution Control Officer has issued Authority to Construct permits to Seneca Resources for its thermally enhanced oil recovery operation within the Midway Sunset Oilfield, California. Seneca proposes to modify one steam generator by lowering the NOx limit and limiting the fuel gas sulfur content in order to comply with Rule 4320. Seneca is also proposing to install two new identical steam generators that will share the same daily and annual potential emissions as the one being modified.

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Sincerely,

David Warner

**Director of Permit Services** 

DW: KR/cm

**Enclosures** 

Seyed Sadredin

Executive Director/Air Pollution Control Officer



NOV 08 2010

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

Re: Notice of Final Decision - ATC / Certificate of Conformity

Facility # S-1114 **Project # S1100733** 

Dear Mr. Tollstrup:

The Air Pollution Control Officer has issued Authority to Construct permits to Seneca Resources for its thermally enhanced oil recovery operation within the Midway Sunset Oilfield, California. Seneca proposes to modify one steam generator by lowering the NOx limit and limiting the fuel gas sulfur content in order to comply with Rule 4320. Seneca is also proposing to install two new identical steam generators that will share the same daily and annual potential emissions as the one being modified.

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.

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

Sincerely,

**Director of Permit Services** 

DW: KR/cm

**Enclosures** 

Seyed Sadredin

Executive Director/Air Pollution Control Officer

www.valleyair.org

# NOTICE OF FINAL DECISION 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 Seneca Resources for its thermally enhanced oil recovery operation within the Midway Sunset Oilfield, California. Seneca proposes to modify one steam generator by lowering the NOx limit and limiting the fuel gas sulfur content in order to comply with Rule 4320. Seneca is also proposing to install two new identical steam generators that will share the same daily and annual potential emissions as the one being modified.

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

The application review for Project #S-1100733, is available for public inspection at http://www.valleyair.org/notices/public\_notices\_idx.htm and the District office at the address below. SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT, 34946 FLYOVER COURT, BAKERSFIELD, CA 93308.





**PERMIT NO: S-1114-10-25** 

**ISSUANCE DATE: 10/19/2010** 

**LEGAL OWNER OR OPERATOR:** SENECA RESOURCES

2131 MARS COURT

**MAILING ADDRESS:** 

**BAKERSFIELD, CA 93308-6830** 

LOCATION:

**HEAVY OIL WESTERN** 

SECTION: SE15 TOWNSHIP: 31S RANGE: 22E

**EQUIPMENT DESCRIPTION:** 

MODIFICATION OF 62.5 MMBTU/HR NATURAL GAS/TEOR GAS FIRED STRUTHERS STEAM GENERATOR WITH LOW NOX BURNER AND 02 CONTROLLER SERVED BY AIRPOL DUAL VALVE TRAY SOX SCRUBBER WITH CHEVRON TYPE MIST ELIMINATOR AND WET ELECTROSTATIC PRECIPITATOR SHARED WITH S-1114-10, '-74: REMOVE UNIT '-107 FROM SLC CONDITION

## CONDITIONS

- 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
- 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
- This ATC shall be implemented concurrently with S-1114-74-10 and '-107-2. [District Rule 2201] Federally Enforceable Through Title V Permit
- Total fuel consumption, including TEOR gas, shall not exceed 511,000 MMBtu/year. [District Rule 2201] Federally Enforceable Through Title V Permit
- Permittee shall install and maintain operational non-resettable, totalizing mass or volumetric flow meter(s) in the fuel (natural gas and TEOR gas) line(s) of the unit. Permittee shall determine the higher heating value (hhv) of the fuels (natural gas and TEOR gas) on a quarterly basis once per calendar quarter and whenever there is a change in the source of the TEOR gas. [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.

Seved Sadredin, Executive Director / APCO

WARNER, Director of Permit Services

- 6. Exhaust from unit shall be directed only to SO2 scrubber/wet ESP authorized herein except when burning PUC regulated natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
- 7. Scrubber/wet ESP shall be in operation when combusting TEOR gas. [District Rule 2201] Federally Enforceable Through Title V Permit
- 8. Steam generator firebox convection section, scrubber bypass valve, and all flue gas ductwork shall be maintained with no detectable leaks. [District Rule 2201] Federally Enforceable Through Title V Permit
- 9. Emission rate of SOx from S-1114-10 and '-74 shall not exceed 262,553 lb/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
- 10. Scrubber recirculation liquid pH shall be maintained only by the addition of caustic, including sodium hydroxide and sodium carbonate. Other caustics may be used upon written District approval. [District Rule 2201] Federally Enforceable Through Title V Permit
- 11. Scrubber liquor pH shall be maintained between 6 and 8, and shall be continuously monitored. [District Rule 2201] Federally Enforceable Through Title V Permit
- 12. Scrubber mist eliminator shall be properly cleaned and maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
- 13. Scrubber recirculation liquor liquid to gas ratio shall be maintained at no less than 8.0 gpm/1000 acfm. [District Rule 2201] Federally Enforceable Through Title V Permit
- 14. Scrubber/wet ESP control efficiency shall not be less than 95% by weight sulfur compounds. [District Rule 2201] Federally Enforceable Through Title V Permit
- 15. When any unit connected to scrubber/wet ESP is burning TEOR gas, scrubber/wet ESP shall be operating and permittee shall demonstrate compliance with PM10 and sulfur oxide emissions limit by stack source testing within 60 days of initial scrubbing date and annually thereafter unless no TEOR gas has been burned since the last scrubber performance source test. Sulfur removal efficiency of scrubber/wet ESP shall be demonstrated during initial stack source test and calculated with subsequent tests. Ongoing compliance with sulfur oxide emissions limit shall be by calculation using the scrubber liquid pH, the demonstrated sulfur removal efficiency, and the fuel gas sulfur content. Fuel gas sulfur content shall be obtained by sample analysis at least quarterly. [District NSR Rule 2201] Federally Enforceable Through Title V Permit
- 16. When unit is operated without scrubber/wet ESP, permittee shall demonstrate compliance with the sulfur oxide emissions limit by analysis of the fuel gas sulfur content within 60 days of initiating operation without scrubber. Analyses, as approved by the APCO, provided by the gas supplier may be used to satisfy this requirement. [District Rule 2201] Federally Enforceable Through Title V Permit
- 17. When complying with PM10 and SOx emission limits by testing of stack emissions, testing shall be performed not less than once every 12 months using EPA Methods 5 or 201A, 6, 6B, 8, or ARB 100 or ARB Methods 1-6. When operating unscrubbed, a grab sample analysis by double GC performed in the laboratory and EPA Method 19 may be used to calculate SOx emissions. Gaseous fuel fired units demonstrating compliance on two consecutive annual source tests shall be tested not less than once every 36 months unless testing is required by scrubber operational mode change as noted above. Annual source testing shall resume if any test fails to show compliance. [District Rule 2201] Federally Enforceable Through Title V Permit
- 18. At no time shall amount of TEOR gas introduced to this unit and all units connected to scrubber/wet ESP exceed the amount introduced during a source test demonstrating compliance with permit limits. [District Rule 2201] Federally Enforceable Through Title V Permit
- 19. Emissions rates shall not exceed any of the following: NOx (as NO2): 15 ppmv @ 3% O2 or 0.018 lb/MMBtu, SOx (as SO2) 0.324 lb/MMBtu or 224 ppmv @ 0% O2, PM10: 0.0713 lb/MMBtu except as provided below, CO: 42 ppmv @ 3% O2 or 0.031 lb/MMBtu, or VOC: 0.0055 lb/MMBtu or 13 ppmv @ 3% O2. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
- 20. Source testing to demonstrate compliance with PM10, SOx, NOx, and CO emission limits shall be conducted annually except as provided below. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

- 21. Source testing to demonstrate compliance with PM10, SOx, NOx, and CO emission limits shall be conducted not less than once every 36 months if compliance is demonstrated on two consecutive annual tests. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
- 22. If permittee fails any compliance demonstration for NOx and/or CO emission limits when testing not less than once every 36 months, compliance with NOx and CO emission limits shall be demonstrated not less than once every 12 months. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
- 23. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
- 24. 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
- 25. Source test results from an individual unit that is identical to this unit, in terms of rated capacity, operational conditions, fuel used, and control method, as approved by the APCO, will satisfy the NOx and CO source testing requirement. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
- 26. Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081] Federally Enforceable Through Title V Permit
- 27. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 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
- 28. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
- 29. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
- 30. The 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, and fuel gas sulfur content ASTM D3246 or double GC for H2S and mercaptans. [District Rules 1081 and 4305] Federally Enforceable Through Title V Permit
- 31. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
- 32. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

- 33. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
- 34. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
- 35. Permittee shall maintain records of fuel gas and TEOR gas sulfur content, higher heating value, annual consumption in MMBtu/year. [District Rule 2201] Federally Enforceable Through Title V Permit
- 36. Permittee shall comply with all notification and recordkeeping requirements of 40 CFR 60.7 a (1)(3) and (b). [District Rule 4001] Federally Enforceable Through Title V Permit
- 37. Fuel gas sulfur content shall be determined using ASTM D3246 or double GC for H2S and mercaptans. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
- 38. Particulate matter emissions shall not exceed 0.1 grain/dscf at operating conditions, nor 0.1 grain/dscf calculated to 12% CO2, nor 10 lb/hr. [District Rule 4201 and District Rule 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
- 39. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by 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. [District Rule 2520, 9.3.2 and District Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit
- 40. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. To demonstrate compliance with this requirement the operator shall test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels. [District Rule 2520, 9.3.2, Kern County Rule 407] Federally Enforceable Through Title V Permit
- 41. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 1070, 1081, 4201, 4301, 4305, and 4306. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
- 42. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: Kern County Rules 107, and 407. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
- 43. When the scrubber is operating, the scrubber liquor pH shall be recorded every 15 minutes. [40 CFR part 64] Federally Enforceable Through Title V Permit
- 44. An excursion from the scrubber liquor pH level is defined as a daily pH reading of less than 6 or greater than 8. Upon detecting any excursion from the acceptable pH level, the permittee shall investigate the excursion and take corrective action to restore required pH level and prevent recurrence of the excursion as expeditiously as practicable. [40 CFR part 64] Federally Enforceable Through Title V Permit
- 45. Records of scrubber pH monitoring equipment downtime, scrubber pH level excursions, and scrubber operation shall be maintained. [40 CFR part 64] Federally Enforceable Through Title V Permit
- 46. The scrubber pH sensor shall be calibrated annually. Calibration of the pH sensor shall be conducted by comparison of the sensor reading with a laboratory measurement of the scrubber recirculation fluid. [40 CFR part 64] Federally Enforceable Through Title V Permit
- 47. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR part 64] Federally Enforceable Through Title V Permit

- 48. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR part 64] Federally Enforceable Through Title V Permit
- 49. If the District or EPA determine that a Quality improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR part 64] Federally Enforceable Through Title V Permit
- 50. All records required to be maintained by this permit shall be maintained for a period of five (5) years and shall be made readily available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit





**PERMIT NO: S-1114-74-10** 

**ISSUANCE DATE: 10/19/2010** 

**LEGAL OWNER OR OPERATOR:** SENECA RESOURCES

2131 MARS COURT

**MAILING ADDRESS:** 

**BAKERSFIELD, CA 93308-6830** 

LOCATION:

**HEAVY OIL WESTERN** 

CA

SECTION: NE15 TOWNSHIP: 318 RANGE: 22E

**EQUIPMENT DESCRIPTION:** 

MODIFICATION OF 62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS FIRED STEAM GENERATOR (CUSA ID # 50-1-15A, DIS# 43005-78) WITH O2 CONTROLLER SERVED BY SO2 SCRUBBER LISTED IN S-1114-10: REMOVE **UNIT '-107 FROM SLC CONDITION** 

## CONDITIONS

- 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
- 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
- This ATC shall be implemented concurrently with S-1114-10-25 and '-107-2. [District Rule 2201] Federally Enforceable Through Title V Permit
- No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- Generator is authorized to operate at the following locations: SE15, T31S/R22E and NE24, T26W/R20E. [District Rule 2201] Federally Enforceable Through Title V Permit
- The permittee shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made in writing no later than 48 hours after starting operation at the location. [District Rule 1070] Federally Enforceable Through Title V Permit

#### CONDITIONS CONTINUE ON NEXT PAGE

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Seyed Sadredin, Executive Director / APCO

VID WARNER, Director of Permit Services

- 7. When operating at SE15, T31S/R22E, scrubber/wet ESP shall be used when burning TEOR gas. TEOR gas firing is not authorized when steam generator operates at NE24, T26W/R20E. [District Rule 2201] Federally Enforceable Through Title V Permit
- 8. Steam generator firebox convection section, scrubber bypass valve, and all flue gas ductwork shall be inspected monthly for detectable leaks. Operator shall repair each leak within 15 calendar days of detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
- 9. Emission rate of SOx from S-1114-10 and '-74 shall not exceed 262,553 lb/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
- 10. Emission rates shall not exceed any of the following: NOx: 0.018 lb/MMBtu or 15 ppmv @ 3% O2, PM10: 0.0713 lb/MMBtu except as provided below, SOx (as SO2): 0.324 lb/MMBtu or 224 ppmv @ 0% O2, VOC: 0.0055 lb/MMBtu or 13 ppmv @ 3% O2, or CO: 29 ppmv at 3% O2 or 0.021 lb/MMBtu. [District Rules 2201, 4305 and 4306] Federally Enforceable Through Title V Permit
- 11. At no time shall TEOR gas introduced to this unit and all units connected to scrubber/wet ESP exceed the amount introduced during a source test demonstrating compliance with permit limits. [District Rule 2201] Federally Enforceable Through Title V Permit
- 12. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 12 months except as provided below. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
- 13. Source testing to demonstrate compliance with NOx and CO emission limits shall be conducted not less than once every 36 months if compliance is demonstrated on two consecutive annual tests. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
- 14. If permittee fails any compliance demonstration for NOx and/or CO emission limits when testing not less than once every 36 months, compliance with NOx and CO emission limits shall be demonstrated not less than once every 12 months. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
- 15. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
- 16. 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
- 17. Source test results from an individual unit that is identical to this unit, in terms of rated capacity, operational conditions, fuel used, and control method, as approved by the APCO, will satisfy the NOx and CO source testing requirement. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
- 18. 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
- 19. 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
- 20. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
- 21. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

- 22. The 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, sulfur oxides ARB Methods 1-6 or EPA Methods 5 or 201A, 6, 6B, 8, or ARB 100, and fuel gas sulfur content ASTM D3246 or double GC for H2S and mercaptans. [District Rules 1081, 4305, and 4306] Federally Enforceable Through Title V Permit
- 23. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
- 24. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
- 25. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
- 26. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
- 27. Permittee shall maintain records of fuel gas and TEOR gas sulfur contents and annual consumption of each. [District Rule 2201] Federally Enforceable Through Title V Permit
- 28. Fuel gas sulfur content shall be determined using ASTM D3246 or double GC for H2S and mercaptans. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
- 29. Particulate matter emissions shall not exceed 0.1 grain/dscf at operating conditions, nor 0.1 grain/dscf calculated to 12% CO2, nor 10 lb/hr. [District Rule 4201 and District Rule 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
- 30. Emissions of sulfur compounds from this unit shall not exceed 200 lb per hour, calculated as SO2. Compliance with this requirement may be demonstrated by 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. [District Rule 2520, 9.3.2 and District Rule 4301, 5.2.1] Federally Enforceable Through Title V Permit
- 31. The concentration of sulfur compounds in the exhaust from this unit shall not exceed 0.2% by volume as measured on a dry basis over a 15 minute period. To demonstrate compliance with this requirement the operator shall test the sulfur content of each fuel source and demonstrate the sulfur content does not exceed 3.3% by weight for gaseous fuels.

  [District Rule 2520, 9.3.2, Kern County Rule 407] Federally Enforceable Through Title V Permit
- 32. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: SJVUAPCD Rules 1070, 1081, 4201, 4301, 4305, and 4306. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit

- 33. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: Kern County Rules 107, and 407. A permit shield is granted from these requirements. [District Rule 2520, 13:2] Federally Enforceable Through Title V Permit
- 34. When the scrubber is operating, the scrubber liquor pH shall be recorded every 15 minutes. [40 CFR part 64] Federally Enforceable Through Title V Permit
- 35. An excursion from the scrubber liquor pH level is defined as a daily pH reading of less than 6 or greater than 8. Upon detecting any excursion from the acceptable pH level, the permittee shall investigate the excursion and take corrective action to restore required pH level and prevent recurrence of the excursion as expeditiously as practicable. [40 CFR part 64] Federally Enforceable Through Title V Permit
- 36. Records of scrubber pH monitoring equipment downtime, scrubber pH level excursions, and scrubber operation shall be maintained. [40 CFR part 64] Federally Enforceable Through Title V Permit
- 37. The scrubber pH sensor shall be calibrated annually. Calibration of the pH sensor shall be conducted by comparison of the sensor reading with a laboratory measurement of the scrubber recirculation fluid. [40 CFR part 64] Federally Enforceable Through Title V Permit
- 38. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR part 64] Federally Enforceable Through Title V Permit
- 39. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR part 64] Federally Enforceable Through Title V Permit
- 40. If the District or EPA determine that a Quality improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR part 64] Federally Enforceable Through Title V Permit
- 41. Records of steam generator firebox convection section, scrubber bypass valve, and all flue gas ductwork monthly inspections shall be maintained. Inspection log shall contain at a minimum the following: 1) date of inspection; 2) name of inspector; 3) identification and location of leak; and 4) date when leak has been repaired. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
- 42. All records required to be maintained by this permit shall be maintained for a period of five (5) years and shall be made readily available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit





**PERMIT NO: S-1114-107-2** 

**ISSUANCE DATE: 10/19/2010** 

**LEGAL OWNER OR OPERATOR: SENECA RESOURCES** 

2131 MARS COURT

MAILING ADDRESS:

**BAKERSFIELD. CA 93308-6830** 

LOCATION:

**HEAVY OIL WESTERN** 

CA

#### **EQUIPMENT DESCRIPTION:**

MODIFICATION OF 77.6 MMBTU/HR TEOR/NATURAL GAS-FIRED STEAM GENERATOR WITH NORTH AMERICAN MAGNA FLAME LE BURNER AND O2 CONTROLLER SERVED BY SO2 SCRUBBER AND WET ESP LISTED IN S-1114-10: REMOVE TEOR GAS FIRING. LOWER NOX TO 7 PPMV AND LIMIT FUEL GAS SULFUR CONTENT FOR RULE 4320, AND INCLUDE WITH UNITS '-114 AND '-115 IN SPECIFIC LIMITING CONDITION FOR NOX, SOX, PM10, CO. AND VOC

### CONDITIONS

- 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
- 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
- This unit may be operated at the following locations: Sections 14 & 15, T31S, R22E, Sections 18, 19, and 20, T11N, R23W, and Section 24, T26S, R20E. [District Rule 4102]
- Permittee shall notify the District Compliance Division of each location at which the unit is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 10701
- Permittee shall determine the higher heating value (hhv) of the fuel at least once per year. [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.

Seved Sadredin, Executive Director / APCO

VID WARNER, Director of Permit Services

- 6. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by: ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2201] Federally Enforceable Through Title V Permit
- 7. Emissions rates shall not exceed any of the following: NOx (as NO2): 7 ppmv @ 3% O2 or 0.008 lb/MMBtu, SOx (as SO2) 0.00285 lb/MMBtu, PM10: 0.0076 lb/MMBtu, CO: 42 ppmv @ 3% O2 or 0.031 lb/MMBtu, or VOC: 0.0055 lb/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- 8. Combined maximum emissions from steam generators S-1114-107, '-114, and '-115 shall not exceed any of the following limits: 5,438 lb-NOx/yr, 1,937 lb-SOx/yr, 5,166 lb-PM10/yr, 21,073 lb-CO/yr, and 3,739 lb-VOC/yr. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- 9. Maximum annual fuel consumption in steam generators S-1114-107, '-114, and '-115 shall not exceed 679,776 MMBtu/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
- 10. Source testing to measure NOx and CO emissions from this unit shall be conducted within 60 days of initial start-up. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- 11. Source testing to measure NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- 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, 4306, and 4320] Federally Enforceable Through Title V Permit
- 13. 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
- 14. Source test results from an individual unit that is identical to this unit, in terms of rated capacity, operational conditions, fuel used, and control method, as approved by the APCO, will satisfy the NOx and CO source testing requirement. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- 15. 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
- 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] Federally Enforceable Through Title V Permit
- 17. 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
- 18. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
- 19. 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, and fuel gas sulfur content ASTM D3246 or double GC for H2S and mercaptans. [District Rules 1081, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- 20. 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

- 21. 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
- 22. 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
- 23. 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
- 24. Permittee shall maintain records of fuel gas sulfur content and higher heating value. [District Rule 2201] Federally Enforceable Through Title V Permit
- 25. Permittee shall maintain annual records of combined fuel use (in MMBtu/year) for steam generators S-1114-107, '-114, and '-115. [District Rule 2201] Federally Enforceable Through Title V Permit
- 26. All records required to be maintained by this permit shall be maintained for a period of five (5) years and shall be made readily available for District inspection upon request. [District Rules 1070, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit





**PERMIT NO: S-1114-114-0** 

**ISSUANCE DATE: 10/19/2010** 

**LEGAL OWNER OR OPERATOR:** SENECA RESOURCES

2131 MARS COURT

**MAILING ADDRESS:** 

**BAKERSFIELD, CA 93308-6830** 

LOCATION:

**HEAVY OIL WESTERN** 

CA

#### **EQUIPMENT DESCRIPTION:**

77.6 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR WITH NORTH AMERICAN MAGNA FLAME LE BURNER AND 02 CONTROLLER

## CONDITIONS

- 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
- 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. Authority to Construct (ATC) S-1114-107-2 shall be implemented prior to or concurrently with this ATC. [District Rule 22011
- This unit may be operated at the following locations: Sections 14 & 15, T31S, R22E, Sections 18, 19, and 20, T11N, R23W, and Section 24, T26S, R20E. [District Rule 4102]
- Permittee shall notify the District Compliance Division of each location at which the unit is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 10701
- This unit shall be equipped with horizontal convection section with at least 235 square feet of bare tube surface area (or thermodynamically equivalent number of square feet of finned tube) per MMBtu/hr of heat input and variable frequency drive high efficiency electrical motors driving the blower and water pump. Documentation showing this unit is so equipped shall be retained on site. [CEQA]

#### 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

WARNER, Director of Permit Services

- 7. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
- 8. Permittee shall determine the higher heating value (hhv) of the fuel at least once per year. [District Rule 2201] Federally Enforceable Through Title V Permit
- 9. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by: ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2201] Federally Enforceable Through Title V Permit
- 10. Emissions rates shall not exceed any of the following: NOx (as NO2): 7 ppmv @ 3% O2 or 0.008 lb/MMBtu, SOx (as SO2) 0.00285 lb/MMBtu, PM10: 0.0076 lb/MMBtu, CO: 42 ppmv @ 3% O2 or 0.031 lb/MMBtu, or VOC: 0.0055 lb/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- 11. Combined maximum emissions from steam generators S-1114-107, '-114, and '-115 shall not exceed any of the following limits: 5,438 lb-NOx/yr, 1,937 lb-SOx/yr, 5,166 lb-PM10/yr, 21,073 lb-CO/yr, and 3,739 lb-VOC/yr. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- 12. Maximum annual fuel consumption in steam generators S-1114-107, '-114, and '-115 shall not exceed 679,776 MMBtu/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
- 13. Source testing to measure NOx and CO emissions from this unit shall be conducted within 60 days of initial start-up. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- 14. Source testing to measure NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- 15. 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, 4306, and 4320] Federally Enforceable Through Title V Permit
- 16. 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
- 17. Source test results from an individual unit that is identical to this unit, in terms of rated capacity, operational conditions, fuel used, and control method, as approved by the APCO, will satisfy the NOx and CO source testing requirement. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- 18. 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
- 19. 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
- 20. 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
- 21. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
- 22. The 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, and fuel gas sulfur content ASTM D3246 or double GC for H2S and mercaptans. [District Rules 1081, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

- 23. 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
- 24. 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
- 25. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- 26. 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
- 27. Permittee shall maintain records of fuel gas sulfur content and higher heating value. [District Rule 2201] Federally Enforceable Through Title V Permit
- 28. Permittee shall maintain annual records of combined fuel use (in MMBtu/year) for steam generators S-1114-107, '-114, and '-115. [District Rule 2201] Federally Enforceable Through Title V Permit
- 29. All records required to be maintained by this permit shall be maintained for a period of five (5) years and shall be made readily available for District inspection upon request. [District Rules 1070, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit





**PERMIT NO:** S-1114-115-0

**ISSUANCE DATE: 10/19/2010** 

**LEGAL OWNER OR OPERATOR:** SENECA RESOURCES

2131 MARS COURT

MAILING ADDRESS:

**BAKERSFIELD, CA 93308-6830** 

LOCATION:

**HEAVY OIL WESTERN** 

CA

#### **EQUIPMENT DESCRIPTION:**

77.6 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR WITH NORTH AMERICAN MAGNA FLAME LE BURNER AND 02 CONTROLLER

## CONDITIONS

- 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
- 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. Authority to Construct (ATC) S-1114-107-2 shall be implemented prior to or concurrently with this ATC. [District Rule 22011
- This unit may be operated at the following locations: Sections 14 & 15, T31S, R22E, Sections 18, 19, and 20, T11N, R23W, and Section 24, T26S, R20E. [District Rule 4102]
- Permittee shall notify the District Compliance Division of each location at which the unit is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 1070]
- This unit shall be equipped with horizontal convection section with at least 235 square feet of bare tube surface area (or thermodynamically equivalent number of square feet of finned tube) per MMBtu/hr of heat input and variable frequency drive high efficiency electrical motors driving the blower and water pump. Documentation showing this unit is so equipped shall be retained on site. [CEQA]

#### CONDITIONS CONTINUE ON NEXT PAGE

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Seved Sadredin, Executive Director / APCO

WARNER, Director of Permit Services

- 7. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
- 8. Permittee shall determine the higher heating value (hhv) of the fuel at least once per year. [District Rule 2201] Federally Enforceable Through Title V Permit
- 9. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by: ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 2201] Federally Enforceable Through Title V Permit
- 10. Emissions rates shall not exceed any of the following: NOx (as NO2): 7 ppmv @ 3% O2 or 0.008 lb/MMBtu, SOx (as SO2) 0.00285 lb/MMBtu, PM10: 0.0076 lb/MMBtu, CO: 42 ppmv @ 3% O2 or 0.031 lb/MMBtu, or VOC: 0.0055 lb/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- 11. Combined maximum emissions from steam generators S-1114-107, '-114, and '-115 shall not exceed any of the following limits: 5,438 lb-NOx/yr, 1,937 lb-SOx/yr, 5,166 lb-PM10/yr, 21,073 lb-CO/yr, and 3,739 lb-VOC/yr. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- 12. Maximum annual fuel consumption in steam generators S-1114-107, '-114, and '-115 shall not exceed 679,776 MMBtu/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
- 13. Source testing to measure NOx and CO emissions from this unit shall be conducted within 60 days of initial start-up. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
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- 15. 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, 4306, and 4320] Federally Enforceable Through Title V Permit
- 16. 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
- 17. Source test results from an individual unit that is identical to this unit, in terms of rated capacity, operational conditions, fuel used, and control method, as approved by the APCO, will satisfy the NOx and CO source testing requirement. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- 18. 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
- 19. 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
- 20. 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
- 21. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
- 22. The 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, and fuel gas sulfur content ASTM D3246 or double GC for H2S and mercaptans. [District Rules 1081, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

- 23. 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
- 24. 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
- 25. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- 26. 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
- 27. Permittee shall maintain records of fuel gas sulfur content and higher heating value. [District Rule 2201] Federally Enforceable Through Title V Permit
- 28. Permittee shall maintain annual records of combined fuel use (in MMBtu/year) for steam generators S-1114-107, '-114, and '-115. [District Rule 2201] Federally Enforceable Through Title V Permit
- 29. All records required to be maintained by this permit shall be maintained for a period of five (5) years and shall be made readily available for District inspection upon request. [District Rules 1070, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit