



**MAR 23 2015**

Stuart Welch  
Mt. Poso Cogeneration Company, LLC  
P O Box 81256  
Bakersfield, CA 93380

**RE: Final – Authority to Construct/Certificate of Conformity (Minor Mod)**  
**Facility Number: S-91**  
**Project Number: S-1141955**

Dear Mr. Welch:

The Air Pollution Control Officer has issued the Authority to Construct permit to Mt. Poso Cogeneration Company, LLC to allow a 49.9 MW atmospheric circulating fluidized bed combustor cogeneration power plant (S-91-3) to be fired on a fuel mixture containing creosote-treated railroad ties, at 36157 Famoso Road in Bakersfield.

Enclosed are the Authority to Construct permit and invoice for the engineering evaluation fees pursuant to District Rule 3010. The District's analysis of the proposal was sent to US EPA Region IX on January 26, 2015. No comments were received following the District's preliminary decision on this project.

Prior to operating with modifications authorized by the Authority to Construct, you must submit an application to modify the Title V permit as an administrative amendment in accordance with District Rule 2520, Section 11.5.

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

Sincerely,



Arnaud Marjollet  
Director of Permit Services

AM:har  
Enclosures

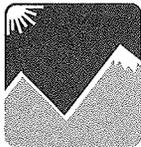
cc: Gerardo C. Rios, EPA (w/enclosure) via email  
Seyed Sadredin  
Executive Director/Air Pollution Control Officer

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**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  
[www.valleyair.org](http://www.valleyair.org) [www.healthyliving.com](http://www.healthyliving.com)

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



**San Joaquin Valley**  
AIR POLLUTION CONTROL DISTRICT

Due Date
5/18/2015

Amount Due
\$ 4,699.00

Amount Enclosed

ENGTIME S1141955  
91 S120189 3/19/2015

**RETURN THIS TOP PORTION ONLY, WITH REMITTANCE TO:**

MT POSO COGENERATION COMPANY, LLC  
P.O. BOX 81256  
BAKERSFIELD, CA 93380-1256

SJVAPCD  
34946 Flyover Court  
Bakersfield, CA 93308

*Thank You!*



**San Joaquin Valley**  
AIR POLLUTION CONTROL DISTRICT

SJVAPCD Tax ID: 77-0262563

Facility ID
S91

Invoice Date
3/19/2015

Invoice Number
S120189

Invoice Type
Project: S1141955

MT POSO COGENERATION COMPANY, LLC  
HEAVY OIL CENTRAL  
CA

**PROJECT NUMBER: 1141955**

ENGINEERING TIME FEES	\$ 4,699.00
LESS PREVIOUSLY PAID PROJECT FEES APPLIED TO THIS INVOICE	\$ 0.00
<b>PROJECT FEES DUE (Enclosed is a detailed statement outlining the fees for each item.)</b>	<b>\$ 4,699.00</b>

Late Payment (see Rule 3010, Section 11.0 Late Fees)	
Postmarked	Total Due
After 5/18/2015 through 5/28/2015	\$ 5,168.90
After 5/28/2015	\$ 7,048.50
After 6/17/2015	Permits To Operate MAY BE SUSPENDED

San Joaquin Valley Air Pollution Control District  
34946 Flyover Court, Bakersfield, CA 93308, (661) 392-5500, Fax (661) 392-5585

## Invoice Detail

Facility ID: S91

MT POSO COGENERATION COMPANY, LLC  
 HEAVY OIL CENTRAL  
 CA

Invoice Nbr: S120189  
 Invoice Date: 3/19/2015  
 Page: 1

### Engineering Time Fees

Project Nbr	Quantity	Rate	Description	Fee
S1141955	45 hours	\$ 106.00 /h	Standard Engineering Time	\$ 4,770.00
			Less Credit For Application Filing Fees	(\$ 71.00)
			Standard Engineering Time SubTotal	\$ 4,699.00
			<b>Total Engineering Time Fees:</b>	<b>\$ 4,699.00</b>



# AUTHORITY TO CONSTRUCT

**PERMIT NO:** S-91-3-21

**ISSUANCE DATE:** 03/19/2015

**LEGAL OWNER OR OPERATOR:** MT POSO COGENERATION COMPANY, LLC

**MAILING ADDRESS:** P.O. BOX 81256  
BAKERSFIELD, CA 93380-1256

**LOCATION:** HEAVY OIL CENTRAL  
CA

**SECTION:** 18 **TOWNSHIP:** 27S **RANGE:** 28E

**EQUIPMENT DESCRIPTION:**

MODIFICATION OF 49.9 MW COAL/PETROLEUM COKE/BIOMASS AND TIRE DERIVED FUEL (TDF) FIRED ATMOSPHERIC CIRCULATING FLUIDIZED BED COMBUSTOR COGENERATION POWER PLANT: ALLOW COMBUSTION OF CREOSOTE-TREATED RAILROAD TIES

## CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Biomass introduced into the combustor shall not contain more than 2% by weight non-biomass material (plastics, metal, painted and preservative-treated wood, roofing material, fiberglass, etc.). [District Rule 4102]
4. At least once per quarter, operator shall collect a representative sample of the biomass material combusted and determine the weight percent of non-biomass material contained in that sample. Prior to collecting the first quarterly sample, operator shall submit a sampling plan to the District's compliance division for approval and shall follow the approved plan for all subsequent sampling, unless a revised plan is submitted and approved. [District Rules 1081 and 4102]

CONDITIONS CONTINUE ON NEXT PAGE

**YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT.** This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 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

Arnaud Marjollet, Director of Permit Services

S-91-3-21 : Mar 19 2015 8:38AM -- RAMIREZH : Joint Inspection NOT Required

5. Operation shall include Ahlstrom Pyroflow atmospheric fluidized bed combustor incorporating low temperature staged combustion and ammonia injection (NOx control), and pulverized limestone/lime cake injection (SOx control). [District Rule 2201] Federally Enforceable Through Title V Permit
6. Operation shall include enclosed gravimetric belt weigh feeder discharging to fuel feed chutes and enclosed limestone/lime cake volumetric feeder with air lock system. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Operation shall include four natural gas fired 62 MMBtu/hr Coen startup burners and two natural gas fired 23 MMBtu/hr Coen duct burners. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Operation shall include two fly ash recycle cyclones, air heater with two fly ash hoppers, economizer and ash handling system. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Operation shall include 1250 HP primary combustion air fan, 500 HP secondary combustion air fan and 150 HP multi-staged centrifugal fluidizing air blower. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Operation shall include 12 compartment fabric collector with 1750 HP induced draft fan, reverse air cleaning mechanism and 100 HP reverse air fan. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Fabric collector shall include a minimum of 134,230 sq. ft. of filtering area, fly ash hopper, with 8 KW electric heater, d.p. transmitter, capacitance type high level detector, vibrator and aeration pad. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Fly ash collected at fabric collector shall be discharged only to fly ash handling system. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Ash shall only be removed from combustion system by means authorized to Permit to Operate S-91-4. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Operation shall be equipped with the following indicators: combustion temperature, combustion air system pressure, primary and secondary fan air flow, ammonia injection flow, fuel use rate and limestone/lime cake use rate. The permittee shall operate and maintain instrumentation to continuously monitor and record levels of combustion temperature, consumption of fuel, ammonia, and limestone/lime cake in boiler. [District Rules 2201 and 2410] Federally Enforceable Through Title V Permit
15. Each fabric collector compartment shall be equipped with access door and differential pressure indicator. The differential pressure across each compartment shall be maintained between 2" and 9.5" water column. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Fabric collector inlet shall be equipped with operational pressure indicator and high temperature alarm which activates prior to high temperature failure. The pressure shall not exceed negative 35" water column. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Fabric collector shall be equipped with automatic cleaning mechanism. [District Rule 2201] Federally Enforceable Through Title V Permit
18. All combustor exhaust gas shall pass through fabric collector prior to being emitted to atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Unit shall be operated as a low temperature combustor with a peak temperature range of 1550 to 1750 deg F. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Unit shall be operated as a staged combustion device by introducing a substoichiometric amount of combustion air into primary combustion zone. [District Rule 2201] Federally Enforceable Through Title V Permit
21. There shall be no provisions for introduction of air into combustion system or exhaust system downstream of the combustion chamber except for air utilized for cyclone center pipe supports and cooling. [District Rule 2201] Federally Enforceable Through Title V Permit
22. The sum of the combined coal, coke, and tire derived fuel throughput and 1/2 times the throughput of biomass and railroad tie material introduced into the combustor shall not exceed 1,400,000 lbs/day and 58,333 lbs/hr (on a dry basis). Solid fuel introduced into the combustor shall contain no more than 4.0% by weight sulfur. [District Rule 2201 and PSD ATC SJ 86-09] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

23. When railroad tie material is introduced into the combustor, the permittee shall maintain records of the ratio (by weight) of railroad tie material to the biomass that is introduced into the combustor. The ratio (by weight) of railroad tie material to biomass shall not exceed 1:1, based on daily fuel yard mixing records. [District Rule 4102] Federally Enforceable Through Title V Permit
24. Of the total fuel introduced into the combustor, no more than 154,000 lbs per day (on a dry basis) shall be TDF. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
25. "Biomass" means any organic material not derived from fossil fuels, such as agricultural crop residue, orchard prunings and removal, stone fruit pits, nut shells, cotton gin trash, cotton stalks, vineyard prunings, cull logs, eucalyptus logs, bark, lawn, yard and garden clippings, leaves, silvicultural residue, tree and brush pruning, wood and wood chips, and wood waste. Biomass does not include material containing sewage sludge or industrial, hazardous, radioactive or municipal solid waste. [District Rules 2201 and Rule 4102] Federally Enforceable Through Title V Permit
26. Wood waste includes clean, chipped wood products, plywood, wood products manufacturing wood materials, construction and demolition wood materials, and wood pallets, crates and boxes. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
27. Limestone/lime cake shall be introduced into combustor at a rate sufficient to maintain a minimum Ca/S molar ratio of 3, except when combusting biomass, railroad ties, and/or natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
28. Ammonia breakthrough shall not result in ground level odors and exhaust stack concentrations, except during periods of start-up/shutdown, shall not exceed 20.0 ppmv based on an annual source test. [District Rule 4102]
29. Emissions rates from boiler exhaust shall not exceed the following: PM10: 190.0 lb/day, VOC: 149.9 lb/day, NOx (as NO2): 1406.4 lb/day nor 463,084 lbs/yr, SOx (as SO2): 699.4 lb/day nor 118,113 lb/yr, or CO: 1207.2 lb/day nor 371,312 lb/yr. [District Rules 2201 and 4301] Federally Enforceable Through Title V Permit
30. Emission rate of PM-10 shall not exceed 7.92 lb/hr and 0.012 lb/MMBtu. Particulate Matter (PM) emissions shall not exceed 0.01 gr/dscf @ 12% CO2. [District Rules 2201, 4201, and 4301 and PSD ATC SJ 86-09] Federally Enforceable Through Title V Permit
31. Emission rate of SOx (as SO2) shall not exceed 25.0 lb/hr, based on three hour rolling average. [District Rules 2201 and 4301 and PSD ATC SJ 86-09] Federally Enforceable Through Title V Permit
32. SOx emissions (as SO2) shall not exceed 0.04 lb/MMBtu, based on a three hour rolling average, during any period in which the power output exceeds 40 MW. [District Rules 2201 and 4801 and PSD ATC SJ 86-09] Federally Enforceable Through Title V Permit
33. Emission rate of oxides of nitrogen as NO2 shall not exceed 58.60 lb/hr, except during startup and shutdown as defined in this permit, based on three hour rolling average. [District Rules 2201 and 2410] Federally Enforceable Through Title V Permit
34. NOx emissions shall not exceed 0.092 lb/MMBtu, based on a three hour rolling average, during any period in which the power output exceeds 40 MW. [District Rule 2201 and PSD ATC SJ 86-09] Federally Enforceable Through Title V Permit
35. Emission rate of volatile organic compounds shall not exceed 6.25 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
36. Emission rate of carbon monoxide shall not exceed 50.30 lb/hr, except during startup and shutdown as defined in this permit, based on three hour rolling average. [District Rules 2201 and 2410] Federally Enforceable Through Title V Permit
37. NOx emissions shall not exceed 65 ppmv @ 3% O2 at any time, except during startup and shutdown (as defined in this permit), based on a block 24 hour (12 AM to 11:59 PM) averaging period. [District Rule 4352, 5.1] Federally Enforceable Through Title V Permit
38. Except during periods of startup and shutdown (as defined in this permit) the emission rate of carbon monoxide shall not exceed 183 ppmv @ 3% O2. Compliance with the carbon monoxide emission limit shall be based on a block 24 hour (12 AM to 11:59 PM) average. [District Rules 2201 and 4352] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

39. Nitrogen oxides (NO<sub>x</sub>) shall not exceed 140 lb/hr, calculated as NO<sub>2</sub>. [District Rule 4301] Federally Enforceable Through Title V Permit
40. Start-up period is defined as the period of time, not exceeding 96 hours except during refractory curing when 192 hours are allowed, during which a unit is heated to the operating temperature and pressure from a shutdown status or hot standby condition. [District Rule 4352] Federally Enforceable Through Title V Permit
41. Shutdown period is defined as the period of time, not exceeding 12 hours, during which a unit is taken from operational to nonoperational status by allowing it to cool down from its operating temperature and pressure to an ambient temperature, or to a hot standby condition. [District Rule 4352] Federally Enforceable Through Title V Permit
42. The main exhaust stack shall be equipped with permanent provisions to allow collection of stack gas samples using approved EPA test methods. [District Rule 1081, 3.0] Federally Enforceable Through Title V Permit
43. Performance testing at maximum operating capacity shall be conducted annually for NO<sub>x</sub>, SO<sub>x</sub>, CO, PM-10, PM, VOCs, and NH<sub>3</sub> at the maximum operating capacity using following test methods; for NO<sub>x</sub> EPA Methods 1-4 and 7 or ARB Method 100; for SO<sub>x</sub> EPA Methods 1-4 and 6 or 6C ARB Method 100; for CO EPA Method 1-4 and 10 or ARB Method 100; for PM(10) EPA Method 201A in combination with EPA Method 202; for PM EPA Methods 1-4 and 5; for VOCs EPA Method 25 or 18; and for NH<sub>3</sub> BAAQMD ST1B. [District Rules 2410, 2520, and 4352] Federally Enforceable Through Title V Permit
44. The District and EPA must be notified 30 days prior to any performance testing and a test plan shall be submitted for District approval 15 days prior to such testing. [District Rule 1081, 7.1 and PSD ATC SJ 86-09] Federally Enforceable Through Title V Permit
45. Performance testing shall be witnessed or authorized District personnel and EPA. Test results must be submitted to the District within 60 day of performance testing. [District Rule 1081, 7.2, 7.3 and PSD ATC SJ 86-09] Federally Enforceable Through Title V Permit
46. Permittee shall report the following emission exceedances to the District: SO<sub>2</sub>, NO<sub>x</sub>, and CO hourly emission rates on a three hour rolling average and daily emissions limitations. Excess emissions shall be defined as any consecutive 3-hour period during which the average emissions for CO, SO<sub>2</sub>, and NO<sub>x</sub> as measured by continuous monitoring system, exceeds the mass or concentration limit set for each pollutant. [District Rule 2201 and PSD ATC SJ 86-09] Federally Enforceable Through Title V Permit
47. At the time of performance testing fuel being burned shall be tested for sulfur, nitrogen, ash content and heating value. [District Rule 2201] Federally Enforceable Through Title V Permit
48. Operator shall operate and maintain in calibration a system which continuously measures and records control system operating parameters; elapsed time of operation; exhaust gas Opacity, NO<sub>x</sub>, SO<sub>2</sub>, and CO concentrations. [District Rules 1080, 4.0, 2201, and 2410] Federally Enforceable Through Title V Permit
49. The continuous emissions monitoring system shall meet the performance specification requirements in 40 CFR 60, Appendix B; 40 CFR 60, Appendix F; and 40 CFR 51, Appendix P, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [District Rule 1080, 6.5 and PSD ATC SJ 86-09] Federally Enforceable Through Title V Permit
50. Operator shall operate and maintain in calibration a system which continuously measures and records stack gas volumetric flow rates meeting the performance specifications of 40 CFR Part 52, Appendix E. [PSD ATC SJ 86-09] Federally Enforceable Through Title V Permit
51. Results of continuous emissions monitoring must be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.3.3, or by other methods deemed equivalent by mutual agreement with the District, the ARB, and the EPA. [District Rule 1080, 7.2] Federally Enforceable Through Title V Permit
52. Records shall be maintained and shall contain: the occurrence and duration of any start-up, shutdown or malfunction, performance testing, evaluations, calibrations, checks, adjustments, maintenance of any CEMs that have been installed pursuant to District Rule 1080, and emission measurements. [District Rule 1080, 7.3 and PSD ATC SJ 86-09] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

53. Permittee shall submit a CEMs written report for each calendar quarter to the District and to EPA. The report is due on the 30th day following the end of the calendar quarter. [District Rule 1080, 8.0 and PSD ATC SJ 86-09] Federally Enforceable Through Title V Permit
54. Quarterly report shall include: time intervals, data and magnitude of excess emissions, nature and cause of excess (if known), corrective actions taken and preventive measures adopted; averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; applicable time and date of each period during which the CEM was inoperative (except for zero and span checks) and the nature of system repairs and adjustments; and a negative declaration when no excess emissions occurred. [District Rules 1080, 8.0 and 2520, 9.6.1 and PSD ATC SJ 86-09] Federally Enforceable Through Title V Permit
55. Any violation of emission standards, as indicated by the CEM, shall be reported by the operator to the APCO within 96 hours. [District Rule 1080, 9.0] Federally Enforceable Through Title V Permit
56. Operator shall notify the District no later than one hour after the detection of a breakdown of the CEM. The operator shall inform the District of the intent to shut down the CEM at least 24 hours prior to the event. [District Rules 1080 and 1100] Federally Enforceable Through Title V Permit
57. Permittee shall maintain an operating log containing type and quantity of fuel used and higher heating value of such fuels on daily basis. [District Rules 2520, 9.4.2 and 4352, 6.2] Federally Enforceable Through Title V Permit
58. Sulfur content of each type of fuel shall be measured and recorded at least every calendar quarter using current ASTM Methods or shall be certified by supplier for each shipment. [District Rule 2520, 9.3.2 and PSD ATC SJ 86-09] Federally Enforceable Through Title V Permit
59. The differential pressure across each compartment of the fabric collectors shall be checked and the results recorded quarterly. If the differential pressure across each compartment of the fabric collectors is not between 2" and 9.5" water column, corrective action is required prior to further operation of the equipment. Corrective action means that the cause of the improper pressure differential is corrected before operation of the equipment is resumed. [District Rule 2520, 9.3.2 and 9.4.2] Federally Enforceable Through Title V Permit
60. The pressure at the fabric collector inlet shall be checked and the results recorded quarterly. If the pressure at the fabric collector inlet is greater than negative 35" water column, corrective action is required prior to further operation of the equipment. Corrective action means that the cause of the improper pressure is corrected before operation of the equipment is resumed. [District Rule 2520, 9.3.2 and 9.4.2] Federally Enforceable Through Title V Permit
61. Fabric collection system shall be completely inspected annually while in operation for evidence of particulate matter breakthrough and shall be repaired as needed. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
62. Fabric collector filters shall be completely inspected annually while not in operation for tears, scuffs, abrasives or holes which might interfere with PM collection efficiency and shall be replaced as needed. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
63. The permittee shall submit an Authority to Construct application to bring the emission unit into compliance with 40 CFR Part 63 Subpart DDDDD (National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters). Compliance with this subpart is required no later than January 31, 2016, except as provided by Subpart 63.6(i). [40 CFR 63 Subpart DDDDD]
64. Records of fabric collector filter maintenance, inspection, and repairs shall be maintained. The records shall include identification of equipment, date of inspection, corrective action taken, and identification of individual performing inspection. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
65. Permittee shall maintain monthly records of NO<sub>x</sub>, SO<sub>x</sub>, and CO to ensure that emissions limits on an annual rolling average are met. [District Rule 2201] Federally Enforceable Through Title V Permit