



NOV 09 2015

Steven Gross
Rio Bravo Poso
19100 Von Karman, Suite 450
Irvine, CA 92612

Re: Notice of Preliminary Decision – Emission Reduction Credits
Facility Number: S-883
Project Number: S-1153416

Dear Mr. Gross:

Enclosed for your review and comment is the District's analysis of Rio Bravo Poso's application for Emission Reduction Credits (ERCs) resulting from the shutdown of a solid fuel-fired cogeneration unit, at 16608 Porterville Highway, Bakersfield. The quantity of ERCs proposed for banking is 171,496 lb-NOx/yr, 58,491 lb-SOx/yr, 10,252 lb-PM10/yr, 138,984 lb-CO/yr, and 1,209 lb-VOC/yr.

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. After addressing all comments made during the 30-day public notice comment period, the District intends to issue the ERCs. Please submit your written comments on this project within the 30-day public comment period, as specified in the enclosed public notice.

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Mr. Richard Edgehill of Permit Services at (661) 392-5617.

Sincerely,



Arnaud Marjollet
Director of Permit Services

AM:rue/ya

Enclosures

cc: Mike Tollstrup, CARB (w/enclosure) via email
cc: Gerardo C. Rios, EPA (w/enclosure) via email

Seyed Sadredin
Executive Director/Air Pollution Control Officer

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

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

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

Emission Reduction Credit Banking Application Review

Shutdown of Solid Fuel-Fired Electrical Generation Facility

Facility Name: Rio Bravo Poso
Mailing Address: 19100 Von Karman, Suite 450
Irvine, CA 92612

Contact Name: Steven B. Gross, CEO
and Maggie Estrada (IHI Power Services Corp)
Telephone: (949) 297-0840 (SG), (949) 297-0849 (ME)

Engineer: Richard Edgehill, Air Quality Engineer
Date: August 25, 2015

Lead Engineer: Richard Karrs, Supv. AQE
Date:

Project Number: S-883, 1153416

ERC Certificate #s: S-4617-1 through -5
Date Received: August 3, 2015
Date Complete: August 25, 2015

I. SUMMARY

Rio Bravo Poso (RBP) has applied for Emission Reduction Credits (ERCs) for the shutdown of a 36.0 MW solid fuel fired cogeneration unit (formerly S-883-3). The application to bank ERC was received on August 3, 2015. An email and letter requesting cancellation of all PTOs at the facility with the exception of S-883-25-6, for a fire water pump IC engine, were received on August 6, 2015 and August 13, 2015, respectively. The PTOs were cancelled on August 6, 2015.

The District accepts that the date of actual emission reductions is the date the facility was shut down, August 6, 2015. The following permit units have been cancelled:

Table 1: Cancelled Permit Units

S-883-0-3	Facility Wide PTO
S-883-2-8	LIMESTONE RECEIVING AND STORAGE OPERATION INCLUDING ONE PNEUMATICALLY FILLED STORAGE SILO WITH FABRIC COLLECTOR - POSO CREEK
S-883-3-20	36.0 MW SOLID FUEL FIRED CIRCULATING BED COMBUSTOR COGENERATION UNIT INCLUDING 389 MMBTU/HR COMBUSTOR WITH LOW-TEMPERATURE STAGED COMBUSTION, AMMONIA INJECTION, AND PULVERIZED LIMESTONE INJECTION - POSO CREEK
S-883-4-8	ASH HANDLING AND LOADOUT OPERATION INCLUDING ENCLOSED CONVEYING SYSTEM FROM COMBUSTION CHAMBER AND FABRIC COLLECTOR HOPPERS, ASH STORAGE SILO AND DRY ASH LOADOUT WITH CO-AXIAL SPOUT VENTED TO FABRIC COLLECTOR, AND ENCLOSED PUG MILL - POSO CREEK
S-883-8-4	SAND RECEIVING AND STORAGE OPERATION INCLUDING ONE PNEUMATICALLY-FILLED STORAGE SILO WITH FABRIC COLLECTOR
S-883-26-4	112 BHP WAUKESHA DIESEL-FIRED EMERGENCY IC ENGINE POWERING A FEEDWATER PUMP
S-883-29-6	23,150 GPM 1375 H.P. COOLING TOWER-RIO BRAVO POSO COGENERATION PLANT
S-883-30-5	35 BHP CUMMINS MODEL NTA-855 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN AIR COMPRESSOR
S-883-31-6	50 TON (15,000 FT ³) CAPACITY REFINERY COKE AND/OR BIOMASS STORAGE SILO EQUIPPED WITH BHA MODEL SPJ-24-X4B8BV VENT FILTER BAGHOUSE, AND ENCLOSED PNEUMATIC SILO LOADING AND UNLOADING SYSTEMS

ERCs are only requested for the shutdown of S-883-3. Cancelled PTO S-883-3-20 is included in **Attachment I**,

Based on the historical operating data prior to the shutdown, the amounts of bankable Actual Emission Reductions (AER) for NO_x, CO, VOC, PM₁₀ and SO_x emissions are as shown in the table below. These values are calculated in Section V of this document:

Table 2: Bankable Emissions Reductions Credits (ERC's)					
Pollutant	Q1 ERC (lb/qtr)	Q2 ERC (lb/qtr)	Q3 ERC (lb/qtr)	Q4 ERC (lb/qtr)	Total
S-4617-2 (NO _x)	29,596	45,246	57,418	39,236	171,496
S-4617-5 (SO _x)	10,711	15,434	19,634	12,712	58,491
S-4617-4(PM ₁₀)	1,446	2,860	3,697	2,249	10,252
S-4617-3(CO)	22,905	37,622	46,608	31,849	138,984
S-4617-1(VOC)	191	330	414	274	1,209

II. APPLICABLE RULES

Rule 2301 Emission Reduction Credit Banking (January 19, 2012)

III. PROJECT LOCATION

RBP is located at 16608 Porterville Hwy, Bakersfield.

IV. METHOD OF GENERATING REDUCTIONS

RBP has been a base load plant for the last 26 years. The entire facility was shut down on August 6, 2015 and all operating permits (except for one fire water pump engine, PTO S-883-25-6) were cancelled on August 6, 2015.

V. CALCULATIONS

A. Assumptions and Emission Factors

RBPs solid fuel-fired cogeneration unit was required to operate and maintain a continuous emissions monitoring system (CEMS) for NO_x, and SO₂. AER for these pollutants is determined from a review of CEMS data (representative boiler CEMS Summaries included in **Attachment II**). For PM₁₀, CO, and VOC, AER is calculated by using the 2010 and 2011 (baseline period) source test data included in **Attachment III**.

Emission factors used in calculating AER are summarized in Table 3, with source test results including the date the results are effective:

Table 3: Emission Factors		
Unit	Pollutant	Emission Factor
S-883-3-20	NO _x	CEMS
	SO _x	CEMS
	PM ₁₀ *	0.0038 lb/MMBtu (10/10), 0.0061 lb/MMBtu(9/19/11)
	CO	0.0602 lb/MMBtu (10/10), 0.0631 lb/MMBtu (9/19/11)
	VOC	0.05 lb/MMBtu (10/10), 0.0006 lb/MMBtu (9/19/11)

*The PM10 emissions include ammonia salts PM

The emissions calculated for NO_x and SO_x are based on CEMS monthly totals.

The 2010 source test results were used to calculate CO, VOC and PM10 emissions from 7/2010-6/2011 (3rd Qtr 2010, 4th Qtr 2010, 1st Qtr 2011, 2nd Qtr 2011)

The 2011 source test results were used to calculate CO, VOC and PM10 emissions from 7/2011-6/2012. (3rd Qtr 2011, 4th Qtr 2011, 1st Qtr 2012, 2nd Qtr 2012)

B. Baseline Period Determination and Data

Pursuant to District Rule 2201, Section 3.8, the baseline period for determining actual historical emissions for banking purposes shall be a period of time equal to either:

3.8.1 the two consecutive years of operation immediately prior to the submission date of the Complete Application; or

3.8.2 at least two consecutive years within the five years immediately prior to the submission date of the Complete Application if determined by the APCO as more representative of normal source operation; or

3.8.3 a shorter period of at least one year if the emissions unit has not been in operation for two years and this represents the full operational history of the emissions unit, including any replacement units; or

3.8.4 zero years if an emissions unit has been in operation for less than one year (only for use when calculating AER).

Justification of Baseline Period

The facility was a baseload plant for most of the operating life. RBP has supplied historic base load operating hour's data from 1996 through 2015. The data are summarized below.

Year	'96	'97	'98	'99	'00	'01	'02	'03	'04	'05	'06
Base Load Operating Hours	8,496	7,394	8,413	8,349	8,417	8,332	8,473	8,406	7,694	8,427	8,240
Year	07	'08	'09	'11	'12	'13	'14	'-15			
Base Load Operating Hours	8,347	8,225	8,111	8,365	4,174	4,302	4,120	2,821 (7/14 thru 6/15)			

The overall average of the operating times for the years '96 thru '15 is 7321 hr/yr. The table below indicates that the average operating hours for the 2-year proposed baseline period (July 1, 2010 through June 30, 2012), 6,270 hours, was closer to this average (7,321 hr/yr) than the other possible baseline periods in the last 5 years.

Baseline Periods in the last 5 Years

Years	Operating Hours
2010 – 2012*	6,270
2011 - 2013	4,238
2012 - 2014	4,251
2013 - 2015	3,511

*proposed baseline period

Therefore, the period of July 1, 2010 to June 30, 2012 was selected as most representative period within the last 5 years for the baseline emissions used in the ERC calculations.

C. Historical Actual Emissions

Historical emissions are presented in the tables below.

Poso Baseline Representative Monthly Emission Totals

Month	Operating Hours	Total Fuel mmBtu	NOx lbs/Month	SO2 lbs/Month	VOC lbs/Month	CO lbs/Month	PM10 lbs/Month
Jul-10	744	306,399	24,434	8,558	153	18,445	1,164
Aug-10	744	314,926	24,680	8,624	157	18,959	1,197
Sep-10	661	268,781	22,137	7,194	134	16,181	1,021
Oct-10	744	321,410	24,824	8,508	161	19,349	1,221
Nov-10	659	270,645	20,399	6,893	135	16,293	1,028
Dec-10	744	321,326	24,929	8,669	161	19,344	1,221
Jan-11	744	316,602	24,646	8,431	158	19,059	1,203
Feb-11	605	255,832	19,971	7,409	128	15,401	972
Mar-11	681	273,064	21,152	7,962	137	16,438	1,038
Apr-11	720	296,962	23,178	8,236	148	17,877	1,128
May-11	599	247,794	19,778	6,218	124	14,917	942
Jun-11	720	311,421	23,216	7,442	156	18,748	1,183
Jul-11	733	313,751	23,645	7,638	188	19,798	1,914
Aug-11	669	274,372	19,658	6,385	165	17,313	1,674
Sep-11	573	204,105	13,041	5,233	122	12,879	1,245
Oct-11	690	249,468	15,674	4,166	150	15,741	1,522
Nov-11	6	756	366	12	0	48	5
Dec-11	0	0	0	0	0	0	0
Jan-12	0	0	0	0	0	0	0
Feb-12	0	0	0	0	0	0	0
Mar-12	0	0	0	0	0	0	0
Apr-12	53	3,892	260	96	2	246	24
May-12	730	253,023	17,402	6,084	152	15,966	1,543
Jun-12	720	251,555	16,711	6,222	151	15,873	1,534

Poso Baseline Representative Quarterly Emission Totals

Qtr	Operating Hrs	NOx lbs/Qtr	SO2 lbs/Qtr	VOC lbs/Qtr	CO lbs/Qtr	PM10 lbs/Qtr
3 rd 2010	2,149	71,251	24,376	445	53,584	3,382
4 th 2010	2,147	70,152	24,070	457	54,986	3,471
1 st 2011	2,030	65,769	23,802	423	50,899	3,213
2 nd 2011	2,039	66,172	21,896	428	51,542	3,253
3 rd 2011	1,976	56,344	19,256	475	49,990	4,833
4 th 2011	696	16,040	4,178	150	15,789	1,526
1 st 2012	0	0	0	0	0	0
2 nd 2012	1,503	34,373	12,402	305	32,084	3,102

Notes: The emissions calculated for NOx and SOx are based on CEMs monthly totals.

D. Actual Emission Reductions (AER)

RBP has applied for ERC banking credits for the permanent cessation of the cogeneration system S-883-3. S-883-3 is not being replaced. Therefore, the HAE is equal to the actual emissions reductions (AER). Quarterly average HAE is calculated in the table below.

Pollutant	Year	Q1 (lb/qtr)	Q2 (lb/qtr)	Q3 (lb/qtr)	Q4 (lb/qtr)
NO _x	2010			71,251	71,152
	2011	65,769	66,172	56,344	16,040
	2012	0	34,373		
	Average	32,885	50,273	63,798	43,596
SO _x	2010			24,376	24,070
	2011	23,802	21,896	19,256	4,178
	2012	0	12,402		
	Average	11,901	17,149	21,816	14,124
PM10	2010			3382	3471
	2011	3213	3253	4833	1526
	2012	0	3102		
	Average	1,607	3,178	4,108	2,499
CO	2010			53584	54986
	2011	50899	51542	49990	15789
	2012	0	32084		
	Average	25,450	41,813	51,787	35,388
VOCs	2010			445	457
	2011	423	428	475	150
	2012	0	305		
	Average	212	367	460	304

Average Quarterly HAE

Quarter	Operating Hours	NOx (lb/qtr)	SOx	PM10	CO	VOC
1 Q	1,015	32,855	11,901	1,607	25,450	212
2 Q	1,771	50,273	17,149	3,178	41,813	367
3 Q	2,062	63,798	21,816	4,108	51,787	460
4 Q	1,421	43,596	14,124	2,499	35,388	304

AER = HAE

AER (lbs/Qtr)	1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr
NOx	32,885	50,273	63,798	43,596
SOx	11,901	17,149	21,816	14,124
PM10	1,607	3,178	4,108	2,499
CO	25,450	41,813	51,787	35,388
VOC	212	367	460	304

E. Air Quality Improvement Deduction (10% of AER)

AQID (lbs/Qtr)	1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr
NOx	3,289	5,027	6,380	4,360
SOx	1,190	1,715	2,182	1,412
PM10	161	318	411	250
CO	2,545	4,181	5,179	3,539
VOC	21	37	46	30

F. Increases in Permitted Emissions (IPE)

No IPE is associated with this project.

G. Bankable Emissions Reductions Credits (AER – AQID)

ERC (lbs/Qtr)	1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr
NOx	29,596	45,246	57,418	39,236
SOx	10,711	15,434	19,634	12,712
PM10	1,446	2,860	3,697	2,249
CO	22,905	37,622	46,608	31,849
VOC	191	330	414	274

VI. COMPLIANCE

To be eligible for banking, emission reduction credits (ERC's) must be verified as being real, surplus, permanent, quantifiable, and enforceable pursuant to District Rules 2201 and 2301. In addition, the application must be submitted within the timelines specified in Rule 2301.

A. Real

The emission reductions proposed for banking result from the shutdown of the solid-fired cogeneration system. The emission reductions are developed from CEMS data or developed from actual operating and source test data. Therefore, the emission reductions are real.

B. Enforceable

RBP has surrendered the operating permit for all units for which it proposes to bank ERC. Operation without the PTO would be subject to enforcement action for a violation of District Rule 2010 (Permits Required). Therefore, the emission reductions are enforceable.

C. Quantifiable

As shown in Section V of this evaluation, emission reductions were calculated using data from a properly installed and calibrated CEMS, or were calculated using actual operating data and source test results. Therefore, the emission reductions are quantifiable.

D. Permanent

RBP has surrendered the operating permit for the unit for which it proposes to bank ERC. Operation of the equipment without a valid PTO is subject to enforcement action. Construction of replacement equipment must be authorized by the District after evaluation under all applicable rules, including District Rule 2201 (New and Modified Stationary Source Review Rule), under which any increase in emissions over the applicable threshold must be offset. Therefore, the emission reductions are permanent.

E. Surplus

Until the operation was shut down, RBP complied with all applicable emission limits contained in the permit to operate and developed from the applicable rules and regulations. Therefore, the AER calculated in Section V are surplus to all current requirements. Furthermore, the CEMS data used to calculate the ERCs for NO_x and SO_x are below the NO_x and SO_x lb/hr permit limits. Therefore, the reductions are surplus.

F. Timeliness

RBP ceased operation on August 6, 2015, from which time it had 180 days to submit the ERC application. Since the ERC application was received by the District before August 6, 2015, the application is timely.

I. Recommendation:

The ERC banking application complies with all applicable rules and regulations. Issue ERC certificates in the amounts shown in Table 2 above.

VII. RECOMMENDATION

After public notice, comments and review, issue ERC Banking Certificates S-4617-1 through S-4617-5 to Rio Bravo Poso:

ERC Certificates				
Pollutant	Q1 ERC (lb/qtr)	Q2 ERC (lb/qtr)	Q3 ERC (lb/qtr)	Q4 ERC (lb/qtr)
S-4617-2 (NO _x)	29,596	45,246	57,418	39,236
S-4617-5 (SO _x)	10,711	15,434	19,634	12,712
S-4617-4(PM ₁₀)	1,446	2,860	3,697	2,249
S-4617-3(CO)	22,905	37,622	46,608	31,849
S-4617-1(VOC)	191	330	414	274

The draft ERC certificates are included in **Attachment IV**.

ATTACHMENT I
PTOs

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-883-3-20

EXPIRATION DATE: 01/31/2015

SECTION: SW28 TOWNSHIP: 27S RANGE: 27E

EQUIPMENT DESCRIPTION:

36.0 MW SOLID FUEL FIRED CIRCULATING BED COMBUSTOR COGENERATION UNIT INCLUDING 389 MMBTU/HR COMBUSTOR WITH LOW-TEMPERATURE STAGED COMBUSTION, AMMONIA INJECTION, AND PULVERIZED LIMESTONE INJECTION - POSO CREEK

PERMIT UNIT REQUIREMENTS

1. Permittee shall comply in full with all applicable Rule 4001 requirements (New Source Performance Standards, 40 CFR, Part 60, Subpart Da). [District Rule 4001] Federally Enforceable Through Title V Permit
2. Fuel collecting conveyor, two fuel crushers, two bucket elevators, two boiler feed conveyors, fuel feed bin, fuel feeder, and limestone conveyor/feeder shall be totally enclosed and ventilated to fabric collector. [District Rule 2201] Federally Enforceable Through Title V Permit
3. Operation shall be equipped with pneumatic limestone feed system. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Operation shall be equipped with primary and secondary combustion air blowers and air preheater with ash hopper. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Operation shall be equipped with fabric collector with ash hopper serving fuel/limestone handling equipment and combustor. [District Rule 2201] Federally Enforceable Through Title V Permit
6. 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; and PSD SJ 85-07] Federally Enforceable Through Title V Permit
7. Combustor shall be fired only on coal, petroleum coke, and/or biomass fuel. Propane or natural gas may be used as start-up fuel. [District Rule 2201] Federally Enforceable Through Title V Permit
8. 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]
9. 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] Federally Enforceable Through Title V Permit

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

10. "Biomass" means any organic material originating from plants including but not limited to products, by-products, residues and wastes from agriculture, forestry, aquatic and related industries, such as agricultural, energy or feed crops, residues and wastes, orchard and vineyard prunings and removal, stone fruit pits, nut shells, cotton gin trash, corn stalks and stover, straw, seedhulls, sugarcane leavings and bagasse, aquatic plants and algae, cull logs, eucalyptus logs, poplars, willows, switchgrass, alfalfa, bark, lawn, yard and garden clippings, waste paper (unprinted), leaves, silvicultural residue, tree and brush pruning, sawdust, timber slash, mill scrap, wood and wood chips, and wood waste. Biomass does not include material containing sewage sludge or industrial, hazardous, radioactive, municipal solid waste, or any material chemically treated or derived from fossil fuels. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
11. 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
12. No more than 836,520 lb (on a dry basis) of coal or coke fuel per day of no more than 4.0% by weight sulfur shall be introduced into the combustor. Two (2) pounds of biomass fuel of no more than 4.0% by weight sulfur may be substituted for one (1) pound of coal or coke fuel. [District Rule 2201] Federally Enforceable Through Title V Permit
13. No more than 836,520 lb (on a dry basis) of solid fuel per day of no more than 4.0% by weight sulfur shall be introduced into the combustor. [PSD SJ 85-07] Federally Enforceable Through Title V Permit
14. Limestone shall be capable of being directly injected into the combustor at a minimum of 0.042 lb limestone per lb of coal or coke introduced into the combustor, or 0.021 lb limestone per lb of biomass. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Peak temperature of combustor shall not exceed 1800 degrees F. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Unit shall be operated as staged-combustion device by introducing sub-stoichiometric amount of combustion air in primary combustion zone. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Ash shall be removed from combustion system only by means authorized by ash handling and loadout operation (Permit No. S-883-4). [District Rule 2201] Federally Enforceable Through Title V Permit
18. Fuel feed and combustion air supply shall be automatically shutdown whenever fabric collector is shutdown. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Visible emissions shall not exceed 1/4 Ringelmann or equivalent 5% opacity at any time from fuel conveyors, crusher, feed bin, feeder, and fabric collector. [District Rule 2201] Federally Enforceable Through Title V Permit
20. All combustor exhaust gas shall pass through fabric collector prior to emission to atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Ammonia injection system shall be capable of delivering at least 2.0 moles of NH₃ for each mole of NO_x. [District Rule 2201] Federally Enforceable Through Title V Permit
22. Soot-blowing shall not result in visible emissions of greater than Ringelmann 1 or equivalent 20% opacity, excluding uncombined water vapor, except for aggregate periods of less than 3 minutes in any one hour period. [District Rule 4101] Federally Enforceable Through Title V Permit
23. 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 the combustor is heated to the operating temperature and pressure from a shutdown status. [District Rule 4352] Federally Enforceable Through Title V Permit
24. 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. [District Rule 4352] Federally Enforceable Through Title V Permit

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

25. "Non-operational (shutdown) status" is defined as a period when no combustion is occurring, and thus no combustion emissions are being generated or emitted, even though there is residual heat in the boiler. During "shutdown" status the unit shall be considered "boiler off-line" and no emission limits shall apply. "Shutdown" status ends with a startup. [District Rule 2201 5.7.1 and 5.7.2] Federally Enforceable Through Title V Permit
26. The emission control system shall be in operation and emissions shall be minimized insofar as technologically feasible during start-up or shutdown. [District Rule 4352] Federally Enforceable Through Title V Permit
27. Particulate matter (PM-10) emission rate shall not exceed 4.31 lb/hr, 0.0111 lb/MMBtu and 0.007 grains/dscf. [District NSR Rule and 40 CFR 60.42 (a)(1)] Federally Enforceable Through Title V Permit
28. Except during periods of combustor start-up and shutdown, sulfur oxide emissions (as SO₂) shall not exceed 15.47 lb/hr and 0.0398 lb/MM Btu. [District Rule 2201 and 40 CFR 60.43 (a)(2)] Federally Enforceable Through Title V Permit
29. Except during periods of startup or shutdown, sulfur dioxide emissions shall not exceed 30% of the potential combustion concentration (70% reduction in potential emissions of sulfur dioxide based on sulfur analysis of "as-fired" fuel). [40CFR60 Subpart Da] Federally Enforceable Through Title V Permit
30. During periods of combustor start-up and shutdown, sulfur oxide emissions (as SO₂) shall not exceed 0.11 lb/MMBtu, calculated on a daily basis. [District Rule 2201] Federally Enforceable Through Title V Permit
31. Sulfur oxide emissions (as SO₂) shall not exceed the following quarterly amounts: 1st Qtr., 33,415 lb; 2nd Qtr., 33,786 lb; 3rd Qtr., 34,158 lb; and 4th Qtr., 34,158 lb. [District Rule 2201 and 40 CFR 60.43Da] Federally Enforceable Through Title V Permit
32. Except during periods of combustor start-up and shutdown, nitrogen oxides emissions (as NO₂) shall not exceed 38.90 lb/hr and 0.1000 lb/MMBtu, as calculated on a daily basis. [District Rule 2201 and 40 CFR 60.42 (a)(1), (2)] Federally Enforceable Through Title V Permit
33. During periods of combustor start-up and shutdown, nitrogen oxide emissions (as NO₂) shall not exceed 0.20 lb/MMBtu, calculated on a daily basis. [District Rule 2201] Federally Enforceable Through Title V Permit
34. Nitrogen oxide emissions (as NO₂) shall not exceed the following quarterly amounts: 1st Qtr., 84,024 lb; 2nd Qtr., 84,958 lb; 3rd Qtr., 85,891 lb; and 4th Qtr., 85,891 lb. [District Rule 2201] Federally Enforceable Through Title V Permit
35. Volatile organic compound (VOC) emission rate shall not exceed 6.03 lb/hr and 0.0155 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
36. Carbon monoxide (CO) emission rate shall not exceed 105.10 lb/hr (3-hour average) and 0.2701 lb/MMBtu. [District Rule 2201 & PSD SJ 85-07] Federally Enforceable Through Title V Permit
37. Performance testing shall be conducted annually for NO_x, SO_x, CO, VOCs, and PM(10) at steady-state steam production rate of at least ninety (90) percent of 305,000 pounds per hour using the following test methods; for NO_x EPA Methods 1-4 and 7 or ARB Method 100; for SO_x EPA Methods 1-4 and 8 or ARB Method 100; for CO EPA Method 1-4 and 10 or ARB Method 100; for VOCs EPA Method 25 or 18; and for PM(10) EPA Method 201A in combination with EPA Method 202 or any other test methods and procedures approved by the District. [District Rules 4352, 6.4 and 2520, 9.3.2] Federally Enforceable Through Title V Permit
38. Performance testing shall be conducted annually for NO_x, SO_x, CO, VOCs, and PM(10) at the maximum operating capacity using following test methods; for NO_x EPA Methods 1-4 and 7 or ARB Method 100; for SO_x EPA Methods 1-4 and 8 or ARB Method 100; for CO EPA Method 1-4 and 10 or ARB Method 100; for VOCs EPA Method 25 or 18; and for PM(10) EPA Method 201A in combination with EPA Method 202. [PSD SJ 85-07] Federally Enforceable Through Title V Permit
39. 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 & PSD SJ 85-07] Federally Enforceable Through Title V Permit

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

40. 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; 40 CFR 60.51Da (a) & PSD SJ 85-07] Federally Enforceable Through Title V Permit
41. Quarterly, start-up, and shutdown NOx and SOx emissions shall be measured by maintaining CEM, fuel use and fuel Btu content records, and such records shall be made available for District inspection upon request. [District Rule 1070, 4.0] Federally Enforceable Through Title V Permit
42. 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 2201 and 4352, 6.2; PSD SJ 85-07] Federally Enforceable Through Title V Permit
43. Sulfur fuel of the each type of fuel shall be measured and recorded on monthly basis using current ASTM Methods or shall be certified by supplier for each shipment. [District Rule 2520, 9.3.2; 40 CFR 60.51Da (a) & PSD SJ 85-07] Federally Enforceable Through Title V Permit
44. Operator shall install, operate, and maintain in calibration a system which continuously measures and records control system operating parameters; elapsed time of operation; and exhaust gas opacity, NOx, SO2, and O2 (or CO) concentrations. [District Rules 2201 and 1080; 40 CFR 60.49Da(b); & PSD SJ 85-07] Federally Enforceable Through Title V Permit
45. 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 SJ 85-07] Federally Enforceable Through Title V Permit
46. Operator shall install, 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 SJ 85-07] Federally Enforceable Through Title V Permit
47. 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
48. 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; 40 CFR 60.52Da and PSD SJ 85-07] Federally Enforceable Through Title V Permit
49. The permittee shall maintain hourly, daily, and 30-day rolling average records of NOx and SOx emissions and of the percentage SOx reduction. [40 CFR 60.48Da (f), (g), 60.43Da (a), 60.51Da (b)] Federally Enforceable Through Title V Permit
50. The permittee shall obtain emission data from the CEMS for at least 22 out of 30 successive boiler operating days for compliance determination. If this minimum data requirement can not be met with the CEMS, the permittee shall supplement the emission data with other monitoring systems approved by the APCO or with the reference methods and procedures described in 40 CFR 60.49(h). [40 CFR 60.49Da(f)] Federally Enforceable Through Title V Permit
51. 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; 40 CFR 60.51Da (a); and PSD SJ 85-07] Federally Enforceable Through Title V Permit
52. 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 Rule 2520, 9.5.1; Rule 1080, 8.0 and PSD SJ 85-07] Federally Enforceable Through Title V Permit

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

53. Any violation of emission standards, as indicated by the CEM, shall be reported by the operator to the APCO within 96 hours. Excess emissions shall be defined as any three-hour period during which emissions of SO_x or NO_x as measured by CEM system exceeds the SO_x and NO_x maximum emission limits set forth for each the pollutants in this permit. [District Rule 1080, 9.0; and PSD SJ 85-07] Federally Enforceable Through Title V Permit
54. Operator shall notify the District no later than one hour after the detection of a breakdown of the CEM unless the owner or operator demonstrates to the APCO's satisfaction that a longer noticing period was necessary. 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 and 40 CFR 64] Federally Enforceable Through Title V Permit
55. Permittee shall not discharge or cause the discharge into the atmosphere SO₂ in excess of the more stringent of 14.0 lb/hr or 20 ppm at 3% O₂ (3-hour average) from stack venting from the combustion unit except during periods of startup and shutdown. [PSD SJ 85-07] Federally Enforceable Through Title V Permit
56. Permittee shall not discharge or cause the discharge into the atmosphere NO_x in excess of the more stringent of 38.9 lb/hr or 78 ppm at 3% O₂ (3-hour average) from stack venting from the combustion unit except during periods of startup and shutdown. [PSD SJ 85-07] Federally Enforceable Through Title V Permit
57. During startup or shutdown, permittee shall not discharge or cause the discharge into the atmosphere SO₂ in excess of 0.11 lb/MMBtu averaged over a 24-hour period. [PSD ATC SJ 85-07] Federally Enforceable Through Title V Permit
58. During startup and shutdown, permittee shall not discharge or cause the discharge into the atmosphere NO_x in excess of 0.20 lb/MMBtu averaged over a 24-hour period. [PSD ATC SJ 85-07] Federally Enforceable Through Title V Permit
59. 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
60. 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
61. 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, 9.4.1] Federally Enforceable Through Title V Permit

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

Rio Bravo Poso
S-883, Project 1153416

ATTACHMENT II

CEMs data

Poso CEM Daily Total based on Hourly Data - July 2010

Row Labels	Sum of NOX#/HR	Sum of SO2#/HR
7/1/2010	796.92	286.3
7/2/2010	804.85	285.43
7/3/2010	801.31	287.58
7/4/2010	804.46	287.24
7/5/2010	805.39	284.6
7/6/2010	802.57	282.44
7/7/2010	798.72	285.44
7/8/2010	800.81	286.45
7/9/2010	787.35	281.55
7/10/2010	788.46	287.18
7/11/2010	789.07	289.06
7/12/2010	781.69	286.37
7/13/2010	778.89	224.12
7/14/2010	772.06	252.96
7/15/2010	771.66	284.27
7/16/2010	774.91	283.63
7/17/2010	803.2	282.94
7/18/2010	806.09	278.43
7/19/2010	807.9	283.07
7/20/2010	806.13	259.52
7/21/2010	806.65	266.88
7/22/2010	808.18	269.19
7/23/2010	805.7	271.33
7/24/2010	807.66	242.09
7/25/2010	804.96	279.82
7/26/2010	790.45	265.54
7/27/2010	784.74	286.85
7/28/2010	777.13	283.65
7/29/2010	698.03	309.25
7/30/2010	672.72	222.94
7/31/2010	795.63	282.22
Grand Total	24434.29	8558.34

Poso CEM Daily Total based on Hourly Data - August 2010

Row Labels	Sum of NOX#/HR	Sum of SO2#/HR
8/1/2010	801.36	284.05
8/2/2010	810.2	276.05
8/3/2010	796.39	254.49
8/4/2010	792.84	285.89
8/5/2010	796.24	284.16
8/6/2010	796.8	287.11
8/7/2010	798.06	286.73
8/8/2010	796.92	282.99
8/9/2010	795.68	269.53
8/10/2010	796.5	264.88
8/11/2010	795.95	280.41
8/12/2010	797.38	281.18
8/13/2010	795.54	281.7
8/14/2010	795.47	282.64
8/15/2010	794.5	279.8
8/16/2010	797.62	270.61
8/17/2010	794.94	282.79
8/18/2010	795.37	278.15
8/19/2010	798.26	282.42
8/20/2010	796.28	282.48
8/21/2010	795.88	277.84
8/22/2010	798.3	287.83
8/23/2010	794.92	277.78
8/24/2010	794.35	284.59
8/25/2010	789.28	280.38
8/26/2010	790.81	268.62
8/27/2010	791.26	283.64
8/28/2010	795.77	284.87
8/29/2010	795.01	286.51
8/30/2010	794.53	254.39
8/31/2010	797.96	259.46
Grand Total	24680.37	8623.97

Rio Bravo Poso
S-883, Project 1153416

ATTACHMENT III

Source Test Results

**REPORT FOR THE 2010 COMPLIANCE
TESTING AT THE RIO BRAVO POSO
COGENERATION PLANT**

PREPARED FOR:

RIO BRAVO POSO
P.O. BOX 81027
BAKERSFIELD, CALIFORNIA 93380

FOR SUBMITTAL TO:

SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT
2700 M STREET, SUITE 275
BAKERSFIELD, CALIFORNIA 93301

PREPARED BY:

STAFFORD PEASE

DELTA AIR QUALITY SERVICES, INC.
1845 NORTH CASE STREET
ORANGE, CALIFORNIA 92865
(714) 279-6777

OCTOBER 2010

REPORT NUMBER: R018515



**TABLE 1-1
PM₁₀ EMISSIONS RESULTS SUMMARY**

Particulate Emissions Without Ammonia Salts Corrections		
	Result	Limit
Grain Loading, gr/dscf	0.0021	0.0070
Grain Loading @ 12% CO ₂	0.0017	---
Mass Emissions, lb/hr	1.75	4.31
Emission Rate, lb/MMBtu	0.0038	0.0111
Particulate Emissions Including Ammonia Salts Corrections		
	Result	Limit
Grain Loading, gr/dscf	0.0012	0.0070
Grain Loading @ 12% CO ₂	0.0010	---
Mass Emissions, lb/hr	1.00	4.31
Emission Rate, lb/MMBtu	0.0022	0.0111

**TABLE 1-2
GASEOUS AND NH₃ EMISSIONS SUMMARY**

	Parameter	Result	Limit
NO _x	lb/hr	31.6	38.9
	lb/MMBtu	0.0706	0.1000
	ppm @ 3% O ₂	51.9	78
SO ₂	lb/hr	10.7	14.0
	lb/MMBtu	0.0240	0.0398
	ppm @ 3% O ₂	12.7	20
CO	lb/hr	26.9	105.1
	lb/MMBtu	0.0602	0.2701
VOC*	lb/hr	0.24	6.03
	lb/MMBtu	0.0005	0.0155
NH ₃	ppm @3% O ₂	1.9	n/a

*Total Non-Methane, Non-Ethane Hydrocarbons as Methane

**REPORT FOR THE 2011 COMPLIANCE
TESTING AT THE RIO BRAVO POSO
COGENERATION PLANT**

PREPARED FOR:

RIO BRAVO POSO
P.O. BOX 81027
BAKERSFIELD, CALIFORNIA 93380

FOR SUBMITTAL TO:

SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT
2700 M STREET, SUITE 275
BAKERSFIELD, CALIFORNIA 93301

PREPARED BY:

STAFFORD PEASE

DELTA AIR QUALITY SERVICES, INC.
1845 NORTH CASE STREET
ORANGE, CALIFORNIA 92865
(714) 279-6777

SEPTEMBER 19, 2011

REPORT NUMBER: R019311



**TABLE 1-1
PM₁₀ EMISSIONS RESULTS SUMMARY**

Particulate Emissions Without Ammonia Salts Corrections		
	Result	Limit
Grain Loading, gr/dscf	0.0030	0.0070
Grain Loading @ 12% CO ₂	0.0027	---
Mass Emissions, lb/hr	2.63	4.31
Emission Rate, lb/MMBtu	0.0061	0.0111
Particulate Emissions Including Ammonia Salts Corrections		
	Result	Limit
Grain Loading, gr/dscf	0.0016	0.0070
Grain Loading @ 12% CO ₂	0.0014	---
Mass Emissions, lb/hr	1.42	4.31
Emission Rate, lb/MMBtu	0.0033	0.0111

**TABLE 1-2
GASEOUS AND NH₃ EMISSIONS SUMMARY**

Parameter		Result	Limit
NO _x	lb/hr	30.6	38.9
	lb/MMBtu	0.0745	0.1000
	ppm @ 3% O ₂	53	76
SO ₂	lb/hr	11.2	14.0
	lb/MMBtu	0.0272	0.0398
	ppm @ 3% O ₂	14	20
CO	lb/hr	25.9	105.1
	lb/MMBtu	0.0631	0.2701
VOC*	lb/hr	0.24	6.03
	lb/MMBtu	0.0006	0.0155
NH ₃	ppm @ 3% O ₂	2.7	n/a

*Total Non-Methane Non-Ethane Hydrocarbons as Methane

Rio Bravo Poso
S-883, Project 1153416

ATTACHMENT IV

Draft ERC Certificates

San Joaquin Valley
Air Pollution Control District

Southern Regional Office • 34946 Flyover Court • Bakersfield, CA 93308

Emission Reduction Credit Certificate

S-4617-1
DRAFT

ISSUED TO: RIO BRAVO POSO
ISSUED DATE: <DRAFT>
LOCATION OF REDUCTION: 16608 PORTERVILLE HWY
BAKERSFIELD, CA 93308

For VOC Reduction In The Amount Of:

Quarter 1	Quarter 2	Quarter 3	Quarter 4
191 lbs	330 lbs	414 lbs	274 lbs

Conditions Attached

Method Of Reduction

- Shutdown of Entire Stationary Source
 Shutdown of Emissions Units
 Other

shutdown of cogeneration operation

Use of these credits outside the San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD) is not allowed without express written authorization by the SJVUAPCD.

Seyed Sadredin, Executive Director / APCO

DRAFT
Arnaud Marjollet, Director of Permit Services

San Joaquin Valley
Air Pollution Control District

Southern Regional Office • 34946 Flyover Court • Bakersfield, CA 93308

Emission Reduction Credit Certificate

S-4617-2
DRAFT

ISSUED TO: RIO BRAVO POSO
ISSUED DATE: <DRAFT>
LOCATION OF REDUCTION: 16608 PORTERVILLE HWY
BAKERSFIELD, CA 93308

For NOx Reduction In The Amount Of:

Quarter 1	Quarter 2	Quarter 3	Quarter 4
29,596 lbs	45,246 lbs	57,418 lbs	39,236 lbs

Conditions Attached

Method Of Reduction

- Shutdown of Entire Stationary Source
 Shutdown of Emissions Units
 Other

shutdown of cogeneration operation

Use of these credits outside the San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD) is not allowed without express written authorization by the SJVUAPCD.

Seyed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services

San Joaquin Valley
Air Pollution Control District

Southern Regional Office • 34946 Flyover Court • Bakersfield, CA 93308

Emission Reduction Credit Certificate

S-4617-3
DRAFT

ISSUED TO: RIO BRAVO POSO
ISSUED DATE: <DRAFT>
LOCATION OF REDUCTION: 16608 PORTERVILLE HWY
BAKERSFIELD, CA 93308

For CO Reduction In The Amount Of:

Quarter 1	Quarter 2	Quarter 3	Quarter 4
22,905 lbs	37,622 lbs	46,608 lbs	31,849 lbs

Conditions Attached

Method Of Reduction

- Shutdown of Entire Stationary Source
 Shutdown of Emissions Units
 Other

shutdown of cogeneration operation

Use of these credits outside the San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD) is not allowed without express written authorization by the SJVUAPCD.

Seyed Sadredin, Executive Director / APCO

DRAFT
Arnaud Marjollet, Director of Permit Services

San Joaquin Valley
Air Pollution Control District

Southern Regional Office • 34946 Flyover Court • Bakersfield, CA 93308

Emission Reduction Credit Certificate

S-4617-4
DRAFT

ISSUED TO: RIO BRAVO POSO
ISSUED DATE: <DRAFT>
LOCATION OF REDUCTION: 16608 PORTERVILLE HWY
BAKERSFIELD, CA 93308

For PM10 Reduction In The Amount Of:

Quarter 1	Quarter 2	Quarter 3	Quarter 4
1,446 lbs	2,860 lbs	3,697 lbs	2,249 lbs

Conditions Attached

Method Of Reduction

- Shutdown of Entire Stationary Source
 Shutdown of Emissions Units
 Other

shutdown of cogeneration operation

Use of these credits outside the San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD) is not allowed without express written authorization by the SJVUAPCD.

Seyed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services

San Joaquin Valley
Air Pollution Control District

Southern Regional Office • 34946 Flyover Court • Bakersfield, CA 93308

Emission Reduction Credit Certificate

S-4617-5
DRAFT

ISSUED TO: RIO BRAVO POSO
ISSUED DATE: <DRAFT>
LOCATION OF REDUCTION: 16608 PORTERVILLE HWY
BAKERSFIELD, CA 93308

For SOx Reduction In The Amount Of:

Quarter 1	Quarter 2	Quarter 3	Quarter 4
10,711 lbs	15,434 lbs	19,634 lbs	12,712 lbs

Conditions Attached

Method Of Reduction

- Shutdown of Entire Stationary Source
 Shutdown of Emissions Units
 Other

shutdown of cogeneration operation

Use of these credits outside the San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD) is not allowed without express written authorization by the SJVUAPCD.

Seyed Sadredin, Executive Director / APCO

DRAFT

Arnaud Marjollet, Director of Permit Services