CALPINE

DUBLIN OFFICE
4160 DUBLIN BOULEVARD
DUBLIN, CALIFORNIA 94568
925.479.6600
925.479.7300 (FAX)

May 3, 2004

Mr. David Warner
Permit Services Manager
Central Region
San Joaquin Valley Air Pollution Control District
1990 East Gettysburg Avenue
Fresno, CA 93726

Subject: San Joaquin Valley Energy Center
Request to Amend Emission Reduction Credit Package
Permits C-3959-1-0, C-3959-2-0, C-3959-3-0, C-3959-4-0, and C-3959-5-0

Dear Mr. Warner:

San Joaquin Valley Energy Center, LLC ("SJVEC") hereby submits the enclosed application to amend SJVEC's emission reduction credits ("ERC") offset package and various permit conditions. This filing is also intended to address California Energy Commission (CEC) conditions of certification for the San Joaquin Valley Energy Center (01-AFC-22). Related filings are being made, under separate cover, to:

- The CEC related to the San Joaquin Valley Energy Center;
- The CEC related to the Pastoria Energy Facility; and
- The San Joaquin Valley APCD related to the Pastoria Energy Facility

Further, we are seeking minor revisions to the ERC conditions in each permit to reflect the allocation of emissions between calendar quarters based on the number of days in each quarter; total annual emissions remain unchanged from the levels previously approved by the District. A slight error related to the quantity of VOC offsets required is proposed to be corrected as well.

We are enclosing the required application forms along with the attached narrative description of the requested changes. A check in the amount of $300 is enclosed to cover the permit application filing fees.

Please do not hesitate to contact me at (925) 479-6729 should you have any questions regarding this submittal.

Respectfully Submitted,

Janet McCarthy for Barbara McBride

Ms. Barbara McBride
Director of Safety, Health & Environment
Calpine Western and California Power Regions

Attachments

xc: Mr. Lance Shaw, California Energy Commission (w/attachment)
Ms. Nancy Tronaas, California Energy Commission (w/attachment)
Mr. Mike Argentine, San Joaquin Valley Energy Center (w/attachment)
Mr. Thomas Goff, SJVAPCD Southern Office (w/attachment)
Mr. Ed Pike, EPA Region IX (w/attachment)
Mr. Gary Rubenstein, Sierra Research (w/attachment)

San Joaquin Valley Air Pollution Control District

www.valleyair.org

Permit Application For:

- [ ] AUTHORITY TO CONSTRUCT (ATC) - New Emission Unit.
- [x] AUTHORITY TO CONSTRUCT (ATC) - Modification Of Emission Unit With Valid PTO/Valid ATC.
- [ ] AUTHORITY TO CONSTRUCT (ATC) - Renewal of Valid Authority to Construct.
- [ ] PERMIT TO OPERATE (PTO) - Existing Emission Unit Now Requiring a Permit to Operate.

1. PERMIT TO BE ISSUED TO: San Joaquin Valley Energy Center, LLC

2. MAILING ADDRESS: STREET/P.O. BOX: 4160 Dublin Blvd.
CITY: Dublin STATE: CA 9-DIGIT ZIP CODE: 94568-3139

3. LOCATION WHERE THE EQUIPMENT WILL BE OPERATED:
STREET: APN 033-020-31 CITY: San Joaquin
____/4 SECTION 25 TOWNSHIP 15 South RANGE 16 East

WITHIN 1,000 FT OF A SCHOOL? [ ] YES [x] NO

S.I.C. CODE(S) OF FACILITY (If known): 4911

4. GENERAL NATURE OF BUSINESS: Electric power generation

INSTALL DATE: June 2006

5. TITLE V PERMIT HOLDERS ONLY: Do you request a COC (EPA Review) prior to receiving your ATC? [ ] YES [ ] NO

6. DESCRIPTION OF EQUIPMENT OR MODIFICATION FOR WHICH APPLICATION IS MADE (include Permit #'s if known, and use additional sheets if necessary)

Modification of conditions for C-3959-1-0, C-3959-2-0, C-3959-3-0, C-3959-4-0, C-3959-5-0 to revise ERC offset package, and correct administrative errors.

7. PERMIT REVIEW PERIOD: Do you request a three- or ten-day period to review the draft Authority to Construct permit? Please note that checking "YES" will delay issuance of your final permit by a corresponding number of working days. See instructions for more information on this review process.
- [x] 3-day review
- [ ] 10-day review
- [ ] No review requested

8. HAVE YOU EVER APPLIED FOR AN ATC OR PTO IN THE PAST? [x] YES [ ] NO
If yes, ATC/PTO #: see above

9. HAVE ALL NECESSARY LAND-USE AUTHORIZATIONS BEEN OBTAINED? (If "No" is checked, please attach explanation.) [x] YES [ ] NO

10. IS THIS APPLICATION SUBMITTED AS THE RESULT OF EITHER A NOTICE OF VIOLATION OR A NOTICE TO COMPLY? [ ] YES [x] NO
If yes, NOV/NTC #:

Optional Section

11. CHECK WHETHER YOU ARE A PARTICIPANT IN EITHER OF THESE VOLUNTARY PROGRAMS:

"SPARE THE AIR"
[ ] Yes [ ] No [ ] Send info

"INSPECT"
[ ] Yes [ ] No [ ] Send info

12. TYPE OR PRINT NAME OF APPLICANT: Mike Argentine

TITLE OF APPLICANT: Project Manager

13. SIGNATURE OF APPLICANT: DATE:

PHONE #: (925) 479-6721
FAX #: (925) 479-7310
E-MAIL: margentine@calpine.com

FOR APCD USE ONLY:

DATE STAMP:	FILING FEE RECEIVED: $ ____ CHECK #: ____ DATE PAID: ____ PROJECT #: ____ FACILITY ID: ____

Application To Amend SJVEC's ERC Offset Package and Permit Conditions

With this application, SJVEC is requesting an amendment to the ERC offset package previously approved by the District. The proposed amendment is in response to a condition imposed by the California Energy Commission (CEC) when the Commission approved the San Joaquin Valley Energy Center (01-AFC-22). This condition (AQ-C7) requires that Calpine file an application to amend either the PEF ERC package or the SJVEC ERC package. In addition, the CEC adopted a condition (AQ-C13) that requires Calpine to expressly provide mitigation for project SO_2 impacts. Calpine has determined that amendments to both packages are required to ensure that all CEC requirements are addressed for both projects.

Please see Attachment 1, Tables 1 and 2 which show the proposed ERCs for SJVEC and how those ERCs satisfy SJVAPCD offset and CEC mitigation requirements, respectively. In addition, we have enclosed in Attachment 1 Table 3 which reconciles Calpine's ERC holdings in the San Joaquin Valley APCD with the ERCs now proposed for PEF and SJVEC.

Finally, SJVEC proposes to amend various conditions in each SJVEC permit to reflect the distribution of project emissions by the number of days in each calendar quarter, rather than based on an equal distribution for each day. This minor change does not result in any change in maximum hourly, daily, or annual emissions from the project for any pollutant. (A slight error in these conditions, which derives from a similar error in the FDOC, is proposed to be corrected in this amendment as well. The error relates to the quantity of VOC offsets required.)

Proposed revisions to these conditions are shown in Attachment 2.

Included as part of this offset package is a request to use SO_2 ERCs to satisfy the District's requirements for both PM_{10} offsets for SJVEC. A copy of the analysis supporting the proposed SO_2:PM_{10} ratio of 1.87:1 (in addition to the applicable distance ratio), is included in Attachment 3. The methodology and data sources used were recommended by District staff.

Attachment 1

Emission Reduction Credit Summary Tables

Table 1

San Joaquin Valley Energy Center Emission Reduction Credits - SJVAPCD Requirements						
	Q1 (lbs)	Q2 (lbs)	Q3 (lbs)	Q4 (lbs)	Annual, lbs	
NOx	90	91	92	92	365	Exclusion
Project Emissions	131,913	133,379	134,845	134,845	534,982	20,000
Project Emissions Subject to Offset	126,982	128,393	129,804	129,804	514,982	
Required Offsets (1.5 ratio)	190,473	192,589	194,706	194,706	772,474	
S-1554-2	185,327	175,853	171,491	182,139	714,810	
S-1547-2	3,986	9,681	19,140	9,076	41,883	
S-1550-2	1,160	7,055	4,075	3,491	15,781	
Total ERCs Allocated to SJVEC	190,473	192,589	194,706	194,706	772,474	
Net Surplus NOx ERCs	0	0	0	0	0	
VOC						
Project Emissions	38,800	39,231	39,663	39,663	157,357	20,000
Project Emissions Subject to Offset	33,869	34,245	34,621	34,621	137,357	
Required Offsets (1.5 ratio)	50,803	51,368	51,932	51,932	206,035	
C-348-1	30,485	30,519	30,470	30,501	121,975	
N-303-1	5,717	6,073	6,542	6,514	24,846	
S-1549-1	6,161	6,230	6,299	6,296	24,986	
S-1665-1	8,440	8,546	8,621	8,621	34,228	
Total ERCs Allocated to SJVEC	50,803	51,368	51,932	51,932	206,035	
Net Surplus VOC ERC's	0	0	0	0	0	
SOx						
Project Emissions	10,762	10,882	11,001	11,001	43,646	54,750
Project Emissions Subject to Offset	0	0	0	0	0	
Required Offsets (1.5 ratio)	0	0	0	0	0	
N-270-5	10,765	10,885	11,004	11,004	43,658	
Total ERCs Allocated to SJVEC	10,765	10,885	11,004	11,004	43,658	
Surplus SOx ERC's	10,765	10,885	11,004	11,004	43,658	
SOx ERCs Used to Offset PM10	10,765	10,885	11,004	11,004	43,658	
Net Surplus SOx ERCs	0	0	0	0	0	
PM10						
Project Emissions	72,527	73,333	74,138	74,138	294,136	29,200
Project Emissions Subject to Offset	65,327	66,053	66,778	66,778	264,936	
Required Offsets (1.5 ratio)	97,990	99,079	100,168	100,168	397,405	
C-347-4	50,845	67,976	8,408	42,056	169,285	
C-448-4	1,067	1,067	1,067	1,067	4,268	
C-449-4	82	28	373	674	1,157	
N-208-4	715	8,177	6,581	715	16,188	
N-297-4	0	0	101	66,394	66,495	
S-1577-4	489	0	0	23,085	23,574	
S-1578-4	421	0	176	46,954	47,551	
S-1666-4	0	0	0	11,831	11,831	
S-1683-4	0	0	0	1,462	1,462	
S-1684-4	0	0	0	11,843	11,843	
S-1687-4	0	0	610	0	610	
S-1689-4	0	0	0	2,604	2,604	
S-1690-4	0	0	0	1,830	1,830	
S-1691-4	0	0	0	856	856	
S-1692-4	0	0	987	14,019	15,006	
S-1693-4	1,091	1,103	1,115	1,115	4,424	
Total ERCs Allocated to SJVEC	54,710	78,351	19,418	226,505	378,984	
Net PM10 Offsets Available (Needed)	-43,280	-20,728	-80,750	126,337	-18,421	Ratio
Redistribute 4th Quarter ERCs	38,738	16,135	76,107	-130,980	0	w/distance
Net PM10 Offsets Available (Needed)	-4,542	-4,593	-4,643	-4,643	-18,421	
Surplus SOx ERCs used	4,542	4,593	4,643	4,643	18,421	2.37
Net Surplus PM10 ERCs	0	0	0	0	0	

Table 2

San Joaquin Valley Energy Center Emission Reduction Credits - CEC Requirements						
	Q1 (lbs)	Q2 (lbs)	Q3 (lbs)	Q4 (lbs)	Annual, lbs	
NOx	90	91	92	92	365	Exclusion
Project Emissions	132,139	133,607	135,076	135,076	535,898	0
Required Offsets (1.0 ratio)	132,139	133,607	135,076	135,076	535,898	
S-1554-2	185,327	175,853	171,491	182,139	714,810	
S-1547-2	3,986	9,681	19,140	9,076	41,883	
S-1550-2	1,160	7,055	4,075	3,491	15,781	
Total ERCs Allocated to SJVEC	190,473	192,589	194,706	194,706	772,474	
Net Surplus NOx ERCs	58,334	58,982	59,630	59,630	236,576	
VOC						
Project Emissions	38,882	39,314	39,746	39,746	157,688	0
Required Offsets (1.0 ratio)	38,882	39,314	39,746	39,746	157,688	
C-348-1	30,485	30,519	30,470	30,501	121,975	
N-303-1	5,717	6,073	6,542	6,514	24,846	
S-1549-1	6,161	6,230	6,299	6,296	24,986	
S-1665-1	8,440	8,546	8,621	8,621	34,228	
Total ERCs Allocated to SJVEC	50,803	51,368	51,932	51,932	206,035	
Net Surplus VOC ERCs	11,921	12,054	12,186	12,186	48,347	
SOx						
Project Emissions	10,765	10,885	11,004	11,004	43,658	0
Required Offsets (1.0 ratio)	10,765	10,885	11,004	11,004	43,658	
N-270-5	10,765	10,885	11,004	11,004	43,658	
Total ERCs Allocated to SJVEC	10,765	10,885	11,004	11,004	43,658	
Surplus SOx ERC's	0	0	0	0	0	
SOx ERCs Used to Offset PM10	0	0	0	0	0	
Net Surplus SOx ERCs	0	0	0	0	0	
PM10						
Project Emissions	72,536	73,342	74,148	74,148	294,173	0
Required Offsets (1.0 ratio)	72,536	73,342	74,148	74,148	294,173	
C-347-4	50,845	67,976	8,408	42,056	169,285	
C-448-4	1,067	1,067	1,067	1,067	4,268	
C-449-4	82	28	373	674	1,157	
N-208-4	715	8,177	6,581	715	16,188	
N-297-4	0	0	101	66,394	66,495	
S-1577-4	489	0	0	23,085	23,574	
S-1578-4	421	0	176	46,954	47,551	
S-1666-4	0	0	0	11,831	11,831	
S-1683-4	0	0	0	1,462	1,462	
S-1684-4	0	0	0	11,843	11,843	
S-1687-4	0	0	610	0	610	
S-1689-4	0	0	0	2,604	2,604	
S-1690-4	0	0	0	1,830	1,830	
S-1691-4	0	0	0	856	856	
S-1692-4	0	0	987	14,019	15,006	
S-1693-4	1,091	1,103	1,115	1,115	4,424	
Total ERCs Allocated to SJVEC	54,710	78,351	19,418	226,505	378,984	
Net PM10 Offsets Available (Needed)	-17,826	5,009	-54,730	152,357	84,811	Ratio w/o
Redistribute 4th Quarter ERCs	17,826	0	54,730	-72,556	0	distance
Net PM10 Offsets Available (Needed)	0	5,009	0	79,802	84,811	
Surplus SOx ERCs used	0	0	0	0	0	1.87
Net Surplus PM10 ERCs	0	5,009	0	79,802	84,811	

Table 3

Calpine Corporation San Joaquin Valley ERC Reconciliation																					
Certificate		Total Certificate Value (lbs)					Allocated to Pastoria					Allocated to SJVEC (lbs)					Remaining Certificate Value (lbs)				
Owner	Number	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total
NOx ERCs																					
Calpine	C-375-2	12,500	12,500	12,500	12,500	50,000	12,500	12,500	12,500	12,500	50,000					0	0	0	0	0	0
Calpine	C-376-2	54,301	54,301	54,301	54,301	217,204	54,301	54,301	54,301	54,301	217,204					0	0	0	0	0	0
Calpine	N-195-2	41,829	41,829	41,829	41,828	167,315	41,829	41,829	41,829	41,828	167,315					0	0	0	0	0	0
Pastoria	S-1547-2	3,986	9,681	19,140	9,076	41,883					0	3,986	9,681	19,140	9,076	41,883	0	0	0	0	0
Pastoria	S-1550-2	1,160	7,055	4,075	3,491	15,781					0	1,160	7,055	4,075	3,491	15,781	0	0	0	0	0
Pastoria	S-1554-2	306,647	310,056	313,464	313,464	1,243,631	11,386	12,719	14,051	14,053	52,208	185,327	175,853	171,491	182,139	714,810	109,935	121,484	127,922	117,272	476,613
Totals		420,423	435,422	445,309	434,660	1,735,814	120,015	121,349	122,681	122,682	486,727	190,473	192,589	194,706	194,706	772,474	109,935	121,484	127,922	117,272	476,613
VOC ERCs																					
Calpine	C-348-1	30,485	30,519	30,470	30,501	121,975					0	30,485	30,519	30,470	30,501	121,975	0	0	0	0	0
Calpine	N-303-1	53,352	43,607	47,208	38,670	182,837					0	5,717	6,073	6,542	6,514	24,846	47,635	37,534	40,666	32,156	157,991
Pastoria	S-1549-1	82,952	83,873	84,795	84,794	336,414	76,791	77,643	78,496	78,498	311,428	6,161	6,230	6,299	6,296	24,986	0	0	0	0	0
Calpine	S-1665-1	8,440	8,546	8,621	8,621	34,228					0	8,440	8,546	8,621	8,621	34,228	0	0	0	0	0
Totals		175,229	166,545	171,094	162,586	675,454	76,791	77,643	78,496	78,498	311,428	50,803	51,368	51,932	51,932	206,035	47,635	37,534	40,666	32,156	157,991
SOx ERCs																					
Calpine	N-270-5	395,000	344,100	298,948	298,948	1,336,996	167,792	169,657	171,521	171,521	680,491	10,765	10,885	11,004	11,004	43,658	216,443	163,558	116,423	116,423	612,847
Totals		395,000	344,100	298,948	298,948	1,336,996	167,792	169,657	171,521	171,521	680,491	10,765	10,885	11,004	11,004	43,658	216,443	163,558	116,423	116,423	612,847
PM10 ERCs																					
Calpine	C-347-4	50,845	67,976	8,408	42,056	169,285					0	50,845	67,976	8,408	42,056	169,285	0	0	0	0	0
Calpine	C-448-4	1,067	1,067	1,067	1,067	4,268					0	1,067	1,067	1,067	1,067	4,268	0	0	0	0	0
Calpine	C-449-4	82	28	373	674	1,157					0	82	28	373	674	1,157	0	0	0	0	0
Calpine	N-208-4	715	8,177	6,581	715	16,188					0	715	8,177	6,581	715	16,188	0	0	0	0	0
Calpine	N-297-4	0	0	101	66,394	66,495					0	0	0	101	66,394	66,495	0	0	0	0	0
Calpine	S-1577-4	489	0	0	23,085	23,574					0	489	0	0	23,085	23,574	0	0	0	0	0
Calpine	S-1578-4	421	0	176	46,954	47,551					0	421	0	176	46,954	47,551	0	0	0	0	0
Calpine	S-1666-4	0	0	0	18,238	18,238					0	0	0	0	11,831	11,831	0	0	0	6,407	6,407
Calpine	S-1683-4	0	0	0	1,462	1,462					0	0	0	0	1,462	1,462	0	0	0	0	0
Calpine	S-1684-4	0	0	0	11,843	11,843					0	0	0	0	11,843	11,843	0	0	0	0	0
Calpine	S-1687-4	0	0	610	0	610					0	0	0	610	0	610	0	0	0	0	0
Calpine	S-1689-4	0	0	0	2,604	2,604					0	0	0	0	2,604	2,604	0	0	0	0	0
Calpine	S-1690-4	0	0	0	1,830	1,830					0	0	0	0	1,830	1,830	0	0	0	0	0
Calpine	S-1691-4	0	0	0	856	856					0	0	0	0	856	856	0	0	0	0	0
Calpine	S-1692-4	0	0	987	14,019	15,006					0	0	0	987	14,019	15,006	0	0	0	0	0
Calpine	S-1693-4	1,091	1,103	1,115	1,115	4,424					0	1,091	1,103	1,115	1,115	4,424	0	0	0	0	0
Totals		54,710	78,351	19,418	232,912	385,391	0	0	0	0	0	54,710	78,351	19,418	226,505	378,984	0	0	0	6,407	6,407

Attachment 3

Proposed Changes to SJVEC Permit Conditions

Permit C-3659-1-0 (Gas Turbine/HRSG Unit 1)

18. Before initial operation of C-3959-1-0, C-3959-2-0, C-3959-3-0, C-3959-4-0, or C-3959-5-0, emission offsets shall be provided to offset the following increases in: PM10 - Q1: ~~66,234~~ 65,327 lb, Q2: ~~66,234~~ 66,053 lb, Q3: ~~66,234~~ 66,778 lb, and Q4: ~~66,234~~ 66,778 lb; NOx (as NO2) - Q1: ~~128,746~~ 126,982 lb, Q2: ~~128,746~~ 128,393 lb, Q3: ~~128,746~~ 129,804 lb, and Q4: ~~128,746~~ 129,804 lb; VOC - Q1: ~~34,378~~ 33,869 lb, Q2: ~~34,378~~ 34,245 lb, Q3: ~~34,378~~ 34,621 lb, and Q4: ~~34,378~~ 34,621 lb. Offsets shall be provided at the appropriate distance ratio specified in Rule 2201. [District Rule 2201]

Permit C-3659-2-0 (Gas Turbine/HRSG Unit 2)

18. Before initial operation of C-3959-1-0, C-3959-2-0, C-3959-3-0, C-3959-4-0, or C-3959-5-0, emission offsets shall be provided to offset the following increases in: PM10 - Q1: ~~66,234~~ 65,327 lb, Q2: ~~66,234~~ 66,053 lb, Q3: ~~66,234~~ 66,778 lb, and Q4: ~~66,234~~ 66,778 lb; NOx (as NO2) - Q1: ~~128,746~~ 126,982 lb, Q2: ~~128,746~~ 128,393 lb, Q3: ~~128,746~~ 129,804 lb, and Q4: ~~128,746~~ 129,804 lb; VOC - Q1: ~~34,378~~ 33,869 lb, Q2: ~~34,378~~ 34,245 lb, Q3: ~~34,378~~ 34,621 lb, and Q4: ~~34,378~~ 34,621 lb. Offsets shall be provided at the appropriate distance ratio specified in Rule 2201. [District Rule 2201]

Permit C-3659-3-0 (Gas Turbine/HRSG Unit 3)

18. Before initial operation of C-3959-1-0, C-3959-2-0, C-3959-3-0, C-3959-4-0, or C-3959-5-0, emission offsets shall be provided to offset the following increases in: PM10 - Q1: ~~66,234~~ 65,327 lb, Q2: ~~66,234~~ 66,053 lb, Q3: ~~66,234~~ 66,778 lb, and Q4: ~~66,234~~ 66,778 lb; NOx (as NO2) - Q1: ~~128,746~~ 126,982 lb, Q2: ~~128,746~~ 128,393 lb, Q3: ~~128,746~~ 129,804 lb, and Q4: ~~128,746~~ 129,804 lb; VOC - Q1: ~~34,378~~ 33,869 lb, Q2: ~~34,378~~ 34,245 lb, Q3: ~~34,378~~ 34,621 lb, and Q4: ~~34,378~~ 34,621 lb. Offsets shall be provided at the appropriate distance ratio specified in Rule 2201. [District Rule 2201]

Permit C-3659-4-0 (16 cell cooling tower)

2. Before initial operation of C-3959-1-0, C-3959-2-0, C-3959-3-0, C-3959-4-0, or C-3959-5-0, emission offsets shall be provided to offset the following increases in: PM10 - Q1: ~~66,234~~ 65,327 lb, Q2: ~~66,234~~ 66,053 lb, Q3: ~~66,234~~ 66,778 lb, and Q4: ~~66,234~~ 66,778 lb; NOx (as NO2) - Q1: ~~128,746~~ 126,982 lb, Q2: ~~128,746~~ 128,393 lb, Q3: ~~128,746~~ 129,804 lb, and Q4: ~~128,746~~ 129,804 lb; VOC - Q1: ~~34,378~~ 33,869 lb,

Q2: ~~34,378~~ 34,245 lb, Q3: ~~34,378~~ 34,621 lb, and Q4: ~~34,378~~ 34,621 lb. Offsets shall be provided at the appropriate distance ratio specified in Rule 2201. [District Rule 2201]

Permit C-3659-5-0 (Auxiliary Boiler)

2. Before initial operation of C-3959-1-0, C-3959-2-0, C-3959-3-0, C-3959-4-0, or C-3959-5-0, emission offsets shall be provided to offset the following increases in: PM10 - Q1: ~~66,234~~ 65,327 lb, Q2: ~~66,234~~ 66,053 lb, Q3: ~~66,234~~ 66,778 lb, and Q4: ~~66,234~~ 66,778 lb; NOx (as NO2) - Q1: ~~128,746~~ 126,982 lb, Q2: ~~128,746~~ 128,393 lb, Q3: ~~128,746~~ 129,804 lb, and Q4: ~~128,746~~ 129,804 lb; VOC - Q1: ~~34,378~~ 33,869 lb, Q2: ~~34,378~~ 34,245 lb, Q3: ~~34,378~~ 34,621 lb, and Q4: ~~34,378~~ 34,621 lb. Offsets shall be provided at the appropriate distance ratio specified in Rule 2201. [District Rule 2201]

Attachment 3

SJVEC Interprecursor Offset Ratio Analysis

San Joaquin Valley Energy Center

PM10 Interpollutant Offset Ratio Analysis

	Notes	Units	Estimate	Uncertainty
PM10				
"Vegetative Burning" Total	1	$\mu g/m^3$	7.48	2.43
Industry Component (30%)	2	$\mu g/m^3$	2.24	
Regional Background (20%)	3	$\mu g/m^3$	0.45	
Industry minus Background		$\mu g/m^3$	1.80	
County Contribution	4	$\mu g/m^3$	0.90	
Organic Carbon PM10 Inventory - Fresno/Madera Co.	5	ton/day	5.63	
County Impact		$\mu g/m^3$ per ton	0.16	0.21
Sulfate				
Ammonium Sulfate	6	$\mu g/m^3$	2.55	0.30
Regional Background	7	$\mu g/m^3$	1.00	
Ammonium Sulfate minus Background		$\mu g/m^3$	1.55	
County Contribution	8	$\mu g/m^3$	0.78	
SOx Inventory - Fresno/Madera Counties	9	ton/day	9.08	
County Impact		$\mu g/m^3$ per ton	0.09	0.10
Tons of SOx to Equal Effect of 1 Ton of PM10	10		1.87	2.21

1. Per SJVUAPCD and CARB, PM10 emissions from stationary industrial combustion sources are included in the Vegetative Burning category from Chemical Mass Balance modeling performed for the SJVUAPCD 2003 PM10 Attainment Plan (Fresno - Drummond monitoring station).
2. Per SJVUAPCD, 30% of this category is attributed to stationary industrial combustion sources.
3. Per SJVUAPCD, regional background is estimated to be 20% of net concentration after previous adjustment to Vegetative Burning category.
4. Contribution from sources within Fresno County is 50% of net concentration after previous adjustments to Vegetative Burning category.
5. Organic carbon PM10 inventory for Fresno/Madera Counties that contributes to this monitoring location; from SIP inventory with updates and adjustments based on CCOS study.
6. Ammonium sulfate category from Chemical Mass Balance modeling performed for the SJVUAPCD 2003 PM10 Attainment Plan (Fresno - Drummond monitoring station).
7. Per SJVUAPCD, regional background of ammonium sulfate is estimated to be 1 $\mu g/m^3$.
8. Contribution from sources within Fresno County is 50% of net concentration after previous adjustment to Vegetative Burning category.
9. SOx inventory for Fresno/Madera Counties that contributes to this monitoring location; from SIP inventory with updates and adjustments based on CCOS study.
10. PM10 County Impact divided by Ammonium Sulfate County Impact.