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June 12, 2009

Courtney Graham
Yolo-Solano Air Quality Management District
1947 Galileo Ct., Suite 103
Davis, CA 95618

Dear Ms. Graham:

On behalf of the applicant, CPV Vacaville, LLC (CPV), Sierra Research is submitting an updated Emission Offset Plan for the CPV Vaca Station (CPVVS) project (08-AFC-11). This plan describes in detail the offsets that the applicant proposes to provide in order to comply with District Regulation 3-4 and CEC air quality mitigation requirements.

Regulation 3-4 Section 302 requires emission offsets from within the Sacramento Valley Air Basin for project emissions that exceed specified levels. As summarized in Table 1, offsets must be provided for reactive organic compounds (ROCs), oxides of nitrogen (NO_x), particulate matter (PM₁₀), and carbon monoxide (CO) for the CPVVS project.

Table 1			
YSAQMD Offset Thresholds (Reg. 3-4 §302.2.a)			
Pollutant	Offset Threshold (lbs/quarter)	Maximum CPVVS emissions (lbs/quarter)	Offsets Required?
ROC	7,500	26,600	Yes
NO _x	7,500	81,140	Yes
SO _x	13,650	7,340	No
PM ₁₀	13,650	40,540	Yes
CO	49,500	104,160	Yes

Distance Offset Ratio

Regulation 3-4 Section 303 requires that emission offsets be discounted based on the distance between the project site and the location where the offset was generated. Most of the offsets in the CPVVS plan are from sources between 15 and 50 miles from the site. For these offsets, the discount ratio is 1.5:1 for all pollutants. Some offsets are less than 15 miles from the site; for these, the discount ratio for ozone precursors is 1.3:1, while the ratio for the other pollutants is 1.2:1. These ratios are reflected in the attached tables that show project compliance with offset requirements.

Excess Offsets

Due to a mis-match between the quarterly distributions of offsets required and those available from the identified certificates, the plan lists more offsets than are required to meet YSAQMD and CEC offset requirements for some pollutants and calendar quarters. Each table lists the quantities of offsets that must be surrendered to meet agency requirements, the list of Emission Reduction Credit (ERC) certificates from which the offsets will be drawn, and the quantities of ERCs that will be retained for future use. The specific ERCs that will be surrendered and the specific ERCs that will be retained will not be determined until ERCs are surrendered prior to the commencement of construction.

Rice Burn Credits: Pending New Applications and Revision of Old ERCs

Some of the offsets in the plan come from sources subject to the Rice Burn ERC Rule. The credits that have already been issued are subject to revaluation by YSAQMD, and the new applications for credit have not been approved. We have estimated the quantities for these offsets based on the formulae in the Rule. Because YSAQMD has not yet approved the ERCs, these estimates are subject to change. In that case, appropriate adjustments to the offset plan will be made.

Proposed ROC:NOx Interpollutant Offset Ratio

The Yolo Solano Air Quality Management District (YSAQMD) is part of the Sacramento Region, and is designated nonattainment for the federal 8-hour ozone standard. YSAQMD's New Source Review rule requires offsets for large increases in emissions of ozone precursors, which include ROC and NOx. CPV will be required to provide offsets for NOx and ROC emissions from the CPVVS project. Although most of the project's NOx emissions will be offset by NOx reductions elsewhere in the area, it has proven necessary to meet some of the NOx offset requirement using ROC in lieu of NOx.

YSAQMD allows the use of interpollutant offsets, provided the project demonstrates a net air quality benefit and the impact analysis demonstrates that the project does not worsen or cause noncompliance with any ambient air quality standard.

The goal in setting a trading ratio for interpollutant offsets is to ensure that the offsets being provided are at least as beneficial to public health as the benefits that would have been provided by the offsets that are being replaced. In the context of ozone precursors, this means that the ROC offsets being provided must be at least as beneficial in progress towards attainment as the NOx offsets that would otherwise have to be provided.

Any single ROC-NOx trade will not have a large effect on ozone, because the quantities of pollutants involved are small relative to the regional emission inventory. The CPVVS emission offset plan calls for as much as 185 lb/day (0.09 ton/day [TPD]) of NOx offsets to be replaced by ROC offsets. For comparison, YSAQMD's NOx inventory from all

sources is 43 TPD, and the Sacramento Air Basin's NO_x inventory is 269.7 TPD. Because the project's emissions are relatively small, the computer models used for ozone attainment planning cannot detect the difference the project makes to ozone formation. Nevertheless, emissions of NO_x contribute to ozone formation, so the goal in setting a trading ratio must be to ensure that the cumulative effect of many such trades will not compromise the area's progress towards attainment.

Use of ROC reductions as offsets for NO_x increases has been approved for at least two power plant projects in the Sacramento Basin.¹ The offset ratios for these two projects were based on analysis by the applicants and reviewing agencies of the sensitivity of ozone levels to changes in NO_x and ROC concentrations. The Colusa County APCD determined that a ROC:NO_x ratio of 1.4:1 was appropriate for the Colusa Generating Station. The Sacramento Metropolitan Air Pollution Control District determined that a ROC:NO_x ratio of 2.6:1 was appropriate for the SMUD Cosumnes project.

We propose to use the 2.6:1 ratio previously approved for the SMUD Cosumnes project. We believe that this ratio is appropriate for two reasons: (1) the Cosumnes project, like the CPVVS, is located in the Sacramento Metropolitan 8-hour Ozone Planning Region, while the Colusa Generating Station is not; and (2) the higher offset ratio is more protective of public health, and therefore provides greater confidence in the benefit provided by the trade.

Use of Offsets from Other Quarters

Rule 3-4 §302.3 requires that offsets be provided from the same calendar quarter as the proposed emissions. This is because ozone precursors have a more significant impact during the ozone season (the warmer months of the second and third calendar quarters [Q2 and Q3]). Sections 302.7 and 302.8 allow the use of offsets from the ozone season to be used as offsets in the cooler months of Q1 and Q4.

There is a shortage of available NO_x offsets in YSAQMD, and that shortage is greatest in Q3. As discussed above, CPVVS will be relying on substituting ROC offsets for NO_x offsets in order to meet YSAQMD offset requirements. Even after using all available NO_x and ROC offsets, however, there is still a shortfall of 21.94 tons of NO_x in Q3.

Under the proposed plan, all available ozone precursor offsets (NO_x and ROC) from ozone season quarters (Q2 and Q3) will be surrendered. YSAQMD regulations do not currently allow transfer of offsets from Q2 to Q3, even though both are ozone season quarters. Even with all ozone precursor offsets from Q2 and Q3, there is still a shortfall of 8.67 tons of NO_x in Q3. Under the proposed plan, these offsets will come from Q4.

There is also a need to use 2.01 tons of NO_x offsets from Q4 in Q1. YSAQMD regulations do not currently allow transfer of offsets from Q4 to Q1, even though both are ozone offseason quarters.

¹ SMUD/Cosumnes (01-AFC-19); and Colusa Generating Station (06-AFC-09).

Neither state nor federal regulations require that offsets be provided on a quarterly or seasonal basis. Most offset programs calculate emission offset requirements on an annual basis. This is generally done for several reasons. First, many of the sources that are subject to offset requirements are not seasonal—they operate year-around, and show more fluctuation between years due to business conditions than they do between seasons. Second, it is likely that, with enough permit activity, projects with different seasonality will average out. Third, and perhaps most important, the amount of permit activity is very small compared with the size of the existing emission inventory. CPVVS is a good example. NO_x emissions from the project will be about 0.45 tons per day. That is about 1% of the total YSAQMD NO_x inventory of 43 TPD, and less than 0.2% of the Sacramento Air Basin's NO_x inventory of 269.7 TPD. This quantity is much smaller than the noise level in the 2009 Sacramento Area Ozone Plan.

CPV has requested that YSAQMD consider a revision to its offset rules that will allow more flexibility in the use of offsets from other quarters. The proposed plan maximizes the use of ozone precursor offsets generated by reductions in the ozone season. It also minimizes the use of ROC offsets in lieu of NO_x. The scarcity of emission reduction credits in YSAQMD, particularly in Q3, makes it necessary to pursue a rule revision that will make YSAQMD's offset requirements more similar to those in other California jurisdictions.

CEC Mitigation Requirements

CEC policy is to consider any net emission increase of a nonattainment pollutant to be a potentially significant impact. CEC therefore requires that all emissions of nonattainment pollutants and their precursors be mitigated by offsets at a one-to-one ratio, calculated on an annual basis. Because the impact being mitigated is a regional impact, no distance adjustment is applied to offsets from within the region.

CPVVS is located in an area that is nonattainment for ozone and PM₁₀. The area is either attainment or attainment/unclassified for PM_{2.5}, NO_x, CO, and SO₂. Because the area is nonattainment for ozone, CEC policy requires 1:1 offsets for ozone precursors (NO_x and ROC); because the area is nonattainment for PM₁₀, CEC policy requires 1:1 offsets for PM₁₀ and its precursors (NO_x, SO_x, PM₁₀).

Compliance with the CEC mitigation requirements is shown in the attached tables. The offsets required by YSAQMD rules will easily satisfy CEC requirements for all pollutants except SO_x. CPVVS did not trigger YSAQMD offset requirements for SO_x. In order to satisfy CEC requirements for SO_x mitigation, offsets will be provided at a 1:1 ratio.

All offsets used to comply with CEC mitigation requirements come from within YSAQMD. No interpollutant offsets are proposed for CEC mitigation.


Conclusion

The attached tables list the emission offsets proposed to meet YSAQMD and CEC requirements for CPVVS. As shown in the tables, the project will comply with CEC mitigation requirements.

The plan shows compliance with YSAQMD offset requirements on a quarterly basis for all pollutants except NO_x. The plan provides sufficient offsets to meet YSAQMD offset requirements for NO_x on an annual basis, assuming that YSAQMD approves a VOC:NO_x interpollutant ratio of 2.6:1. In order for the plan to comply with YSAQMD requirements for NO_x, we are asking YSAQMD to revise its rules to allow more flexibility for the use of NO_x offsets from other quarters.

Please do not hesitate to contact me if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read 'S Hill', written over a faint rectangular stamp.

Steve Hill

Attachments

cc: Rod Jones, CEC
Gerardo Rios, USEPA Region 9
Andrew Welch, CPV
Mike Carroll, Latham & Watkins

Table 2. CPVVS Offset Plan (NOx)

Credit Holder	Cert. No	Reduction Site	Distance (miles)	Dist. Ratio	Adjusted for Distance									
					Q1 lb	Q2 lb	Q3 lb	Q4 lb	Annual lb	Q1 lb	Q2 lb	Q3 lb	Q4 lb	Annual lb
Adams Group	EC-0189	Cty Rd 7 & Cty Road 95B	37	1.5	5,225.0	4,852.0	1,493.0	7,092.0	18,662.0	3,483.3	3,234.7	995.3	4,728.0	12,441.3
Adams Group	EC-0191	Dunnigan	37	1.5	11,248.0	10,160.0	2,540.0	12,337.0	36,285.0	7,498.7	6,773.3	1,693.3	8,224.7	24,190.0
Adams Schwab and Adams	EC-0042	Woodland	24	1.5	237.0	232.0	233.0	321.0	1,023.0	158.0	154.7	155.3	214.0	682.0
Beltrami Trust	EC-108	County Rd 36 & Cty Rd 106	16	1.5	2,842.0		1,277.0		4,119.0	1,894.7	0.0	851.3	0.0	2,746.0
Calpine	EC-0269	Clarksburg	22	1.5		7,700.0			7,700.0	0.0	5,133.3	0.0	0.0	5,133.3
City of Roseville	EC-0251	Clarksburg	22	1.5		10,620.0		4,414.0	15,034.0	0.0	7,080.0	0.0	2,942.7	10,022.7
City of Roseville	EC-0252	Clarksburg	22	1.5		5,137.0		2,746.0	7,883.0	0.0	3,424.7	0.0	1,830.7	5,255.3
Conaway	Pending (note)	Woodland	25	1.5	16,380.0	15,210.0	4,680.0	22,230.0	58,500.0	10,920.0	10,140.0	3,120.0	14,820.0	39,000.0
Coppell & Ireland	EC-0114	Cty Rd 35 & Cty Rd 104	16	1.5	1,179.0		530.0		1,709.0	786.0	0.0	353.3	0.0	1,139.3
Hunt Wesson Foods	EC-0028	Davis	17	1.5			1,789.0		1,789.0	0.0	0.0	1,192.7	0.0	1,192.7
Jack Wallace	EC-0110	Woodland	24	1.5	9,007.0	8,364.0	2,574.0	12,224.0	32,169.0	6,004.7	5,576.0	1,716.0	8,149.3	21,446.0
Laupe Pantan	Pending (note)			1.5	3,671.0	2,375.0	648.0	4,103.0	10,797.0	2,447.3	1,583.3	432.0	2,735.3	7,198.0
Pacific Coast Producers	EC 0206	Davis	17	1.5			251.0		251.0	0.0	0.0	167.3	0.0	167.3
Pacific International Rice Mills	EC-0223	Woodland	24	1.5			609.0	1,088.0	1,697.0	0.0	0.0	406.0	725.3	1,131.3
Reclamation District	EC-0235 (note)	Reclamation District 108	37	1.5	21,874.0	20,312.0	6,250.0	29,687.0	78,123.0	14,582.7	13,541.3	4,166.7	19,791.3	52,082.0
River Garden Farms	EC-0273 (note)	River Garden Farms	35	1.5	22,776.0	21,149.0	6,507.0	30,910.0	81,342.0	15,184.0	14,099.3	4,338.0	20,606.7	54,228.0
Teichert Aggregates	EC-0240	Esparto	25	1.5	512.0	594.0	356.0	488.0	1,950.0	341.3	396.0	237.3	325.3	1,300.0
UC Davis	EC-0198	Vacaville	6	1.3			1,587.0		1,587.0	0.0	0.0	1,220.8	0.0	1,220.8
UC Davis	EC-0199	Vacaville	6	1.3			1,388.0		1,388.0	0.0	0.0	1,067.7	0.0	1,067.7
UC Davis	EC-0200	Vacaville	6	1.3			1,289.0		1,289.0	0.0	0.0	991.5	0.0	991.5
UC Davis	EC-0263	Clarksburg	22	1.5		6,000.0			6,000.0	0.0	4,000.0	0.0	0.0	4,000.0
UC Davis	EC-0297	Woodland	24	1.5		1,008.0	388.0	851.0	2,247.0	0.0	672.0	258.7	567.3	1,498.0
UC Davis	EC-0298	Vacaville	6	1.3		664.0	737.0	751.0	2,152.0	0.0	510.8	566.9	577.7	1,655.4
UC Davis	EC-0299	Vacaville	6	1.3		684.0	737.0	751.0	2,172.0	0.0	526.2	566.9	577.7	1,670.8
UC Davis	EC-0320	Davis	17	1.5	10,672.0	8,890.0	10,852.0	11,265.0	41,679.0	7,114.7	5,926.7	7,234.7	7,510.0	27,786.0
Wallace Construction	EC-0112	CR 16 & CR 116	31	1.5	2,862.0	1,695.0	1,207.0	2,058.0	7,822.0	1,908.0	1,130.0	804.7	1,372.0	5,214.7
Woodland Nut Oils	EC00312	Woodland	24	1.5	1,216.0	1,442.0	1,511.0	1,070.0	5,239.0	810.7	961.3	1,007.3	713.3	3,492.7
(Note)		Total Available Offsets		lb	109,701.0	127,088.0	49,433.0	144,386.0	430,608.0	73,134.0	84,863.6	33,543.8	96,411.4	287,952.8
Rice burn credit applications under review by District. Offset quantities are estimated based on formulae in Rule		Total Retained Offsets		lb										
		Total Surrendered Offsets		lb	109,701.0	127,088.0	49,433.0	144,386.0	430,608.0	73,134.0	84,863.6	33,543.8	96,411.4	287,952.8
				Ton	54.85	63.54	24.72	72.19	215.30	36.57	42.43	16.77	48.21	143.98
		Shifting between quarters		Ton						2.01	(13.27)	21.94	(10.68)	
		VOC for NOx (2.6:1 ratio)		Ton						1.30	9.27	1.86	1.30	
		Mitigation requirements		Ton	39.88	38.43	40.57	38.83	157.71	39.88	38.43	40.57	38.83	157.71
		Excess (shortfall), ton		ton	14.97	25.12	(15.85)	33.36	57.60	(0.00)	0.00	(0.00)	(0.00)	(0.00)

Table 3. CPVVS Offset Plan (ROC)

Credit Holder	Cert. No	Reduction Site	Distance (miles)	Dist. Ratio	Adjusted for Distance										
					Q1 lb	Q2 lb	Q3 lb	Q4 lb	Annual lb	Q1 lb	Q2 lb	Q3 lb	Q4 lb	Annual lb	
Adams Group	EC-0189	Cty Rd 7 & Cty Road 95B	37	1.5	8,087.0	7,509.0	2,311.0	10,975.0	28,882.0	5,391.3	5,006.0	1,540.7	7,316.7	19,254.7	
Adams Group	EC-0191	Dunnigan	37	1.5	17,408.0	15,723.0	3,931.0	19,093.0	56,155.0	11,605.3	10,482.0	2,620.7	12,728.7	37,436.7	
Adams Schwab and Adams	EC-0042	Woodland	24	1.5	35.0	34.0	34.0	47.0	150.0	23.3	22.7	22.7	31.3	100.0	
Alza Corporation	EC-0272	Vacaville	6	1.3	17.0	26.0	14.0	18.0	75.0	13.1	20.0	10.8	13.8	57.7	
Alza Corporation	EC-0321	Vacaville	6	1.3	382.0	2,800.0	1,913.0	295.0	5,390.0	293.8	2,153.8	1,471.5	226.9	4,146.2	
Beltrami Trust	EC-108	County Rd 36 & Cty Rd 106	16	1.5	4,551.0		2,044.0		6,595.0	3,034.0	0.0	1,362.7	0.0	4,396.7	
Calpine	EC-0269	Clarksburg	22	1.5			460.0	806.0	1,266.0	0.0	0.0	306.7	537.3	844.0	
Conaway	Pending (note)	Woodland	25	1.5	14,805.0	13,747.5	4,230.0	20,092.5	52,875.0	9,870.0	9,165.0	2,820.0	13,395.0	35,250.0	
Coppell & Ireland	EC-0114	Cty Rd 35 & Cty Rd 104	16	1.5	1,888.0		848.0		2,736.0	1,258.7	0.0	565.3	0.0	1,824.0	
Jack Wallace	EC-0110	Woodland	24	1.5	13,307.0	7,081.0	4,227.0	8,599.0	33,214.0	8,871.3	4,720.7	2,818.0	5,732.7	22,142.7	
Laupe Panton	Pending (note)		15	1.5	4,370.0	2,828.0	771.0	4,884.0	12,853.0	2,913.3	1,885.3	514.0	3,256.0	8,568.7	
Leer-West	EC-0292	Woodland	24	1.5	11,356.0	11,802.0	12,885.0	9,882.0	45,925.0	7,570.7	7,868.0	8,590.0	6,588.0	30,616.7	
Mariani Packing Comp	EC-0287	Vacaville	6	1.3			139.0		139.0	0.0	0.0	106.9	0.0	106.9	
Mariani Packing Comp	EC-0288	Vacaville	6	1.3			139.0		139.0	0.0	0.0	106.9	0.0	106.9	
Mariani Packing Comp	EC-0289	Vacaville	6	1.3			139.0		139.0	0.0	0.0	106.9	0.0	106.9	
Mariani Packing Comp	EC-0290	Vacaville	6	1.3	120.0	100.0	111.0	114.0	445.0	92.3	76.9	85.4	87.7	342.3	
Mariani Packing Comp	EC-0291	Vacaville	6	1.3	120.0	100.0	111.0	114.0	445.0	92.3	76.9	85.4	87.7	342.3	
Pacific International Rice Mills	EC-0223	Woodland	24	1.5			23.0	58.0	81.0	0.0	0.0	15.3	38.7	54.0	
Reclamation District	EC-0235(note)	Reclamation District 108	37	1.5	19,771.0	18,359.0	5,649.0	26,832.0	70,611.0	13,180.7	12,239.3	3,766.0	17,888.0	47,074.0	
River Garden Farms	EC-0273 (note)	River Garden Farms	35	1.5	20,586.0	19,116.0	5,882.0	27,938.0	73,522.0	13,724.0	12,744.0	3,921.3	18,625.3	49,014.7	
Teichert Aggregates	EC-0240	Esparto	25	1.5	54.0	63.0	38.0	51.0	206.0	36.0	42.0	25.3	34.0	137.3	
UC Davis	EC-0198	Vacaville	6	1.3			139.0		139.0	0.0	0.0	106.9	0.0	106.9	
UC Davis	EC-0199	Vacaville	6	1.3			139.0		139.0	0.0	0.0	106.9	0.0	106.9	
UC Davis	EC-0200	Vacaville	6	1.3			139.0		139.0	0.0	0.0	106.9	0.0	106.9	
UC Davis	EC-0201	Davis	17	1.5		1.0	188.0	21.0	210.0	0.0	0.7	125.3	14.0	140.0	
UC Davis	EC-0203	Davis	17	1.5			200.0	25.0	225.0	0.0	0.0	133.3	16.7	150.0	
UC Davis	EC-0260	Clarksburg	22	1.5	8.0	674.0	215.0	280.0	1,177.0	5.3	449.3	143.3	186.7	784.7	
UC Davis	EC-0261	Clarksburg	22	1.5	3.0	221.0	70.0	92.0	386.0	2.0	147.3	46.7	61.3	257.3	
UC Davis	EC-0262	Clarksburg	22	1.5	17.0	1,381.0	441.0	574.0	2,413.0	11.3	920.7	294.0	382.7	1,608.7	
UC Davis	EC-0263	Clarksburg	22	1.5	141.0	5,694.0	3,274.0	4,054.0	13,163.0	94.0	3,796.0	2,182.7	2,702.7	8,775.3	
UC Davis	EC-0320	Davis	17	1.5	177.0	148.0	181.0	188.0	694.0	118.0	98.7	120.7	125.3	462.7	
Wallace Construction	EC-0112	CR 16 & CR 116	31	1.5	4,482.0	2,623.0	1,910.0	3,186.0	12,201.0	2,988.0	1,748.7	1,273.3	2,124.0	8,134.0	
Woodland Nut Oils	EC00312	Woodland	24	1.5	174.0	207.0	217.0	154.0	752.0	116.0	138.0	144.7	102.7	501.3	
					Q1	Q2	Q3	Q4	Annual	Q1	Q2	Q3	Q4	Annual	
Total Available Offsets					lb	121,859.0	110,237.5	53,012.0	138,372.5	423,481.0	81,304.9	73,802.0	35,647.3	92,303.8	283,058.0
Rice burn credit applications under review by District.					lb	71,917.3			89,615.7		47,944.9			59,743.8	
Offset quantities are estimated based on formulae in Rule					lb	49,941.7	110,237.5	53,012.0	48,756.8	261,948.0	33,360.0	73,802.0	35,647.3	32,560.0	175,369.3
					Ton	24.97	55.12	26.51	24.38	130.97	16.68	36.90	17.82	87.68	
VOC for NOx (2.6:1 ratio)					Ton					(3.38)	(24.10)	(4.82)	(3.38)	(35.68)	
					CEC Mitigation (1:1 on an annual basis)					YSAQMD Offsets (1:1, adjusted for distance)					
Mitigation requirements					Ton	13.30	12.80	13.00	12.90	52.00	13.30	12.80	13.00	12.90	52.00
Excess (shortfall), ton					ton	11.67	42.32	13.51	11.48	78.97	0.00	0.00	0.00	0.00	0.00

Table 4. CPVVS Offset Plan (PM10)

Credit Holder	Cert. No	Reduction Site	Distance (miles)	Dist. Ratio	Offset Plan					Adjusted for Distance			
					Q1 lb	Q2 lb	Q3 lb	Q4 lb	Annual lb	Q1 lb	Q2 lb	Q3 lb	Q4 lb
Calpine	EC-0083	Clarksburg	22	1.5		1,339.0	28,275.0	11,270.0	40,884.0	0.0	892.7	18,850.0	7,513.3
Calpine	EC-0269	Clarksburg	22	1.5		5,316.0	4,472.0	9,788.0	0.0	3,544.0	2,981.3	0.0	
Grey K Holdings	EC-0303	Cty Rd 36 & Cty Rd 106	16	1.5	12,977.0		5,830.0	18,807.0	8,651.3	0.0	3,886.7	0.0	
Grey K Holdings	EC-0304	Cty Rd 35 & Cty Rd 104	16	1.5	5,385.0		2,419.0	7,804.0	3,590.0	0.0	1,612.7	0.0	
Grey K Holdings	EC-0305	Cty Rd 14 & Cty R 102	37	1.5	11,093.0	4,290.0	3,923.0	5,209.0	24,515.0	7,395.3	2,860.0	2,615.3	3,472.7
Grey K Holdings	EC-0306	Cty Rd 16 & Cty Rd 116	37	1.5	9,717.0	1,589.0	3,972.0	1,930.0	17,208.0	6,478.0	1,059.3	2,648.0	1,286.7
Grey K Holdings	EC-0307	Dunnigan	37	1.5	10,545.0	9,525.0	2,381.0	11,566.0	34,017.0	7,030.0	6,350.0	1,587.3	7,710.7
Grey K Holdings	EC-0308	Cty Rd 7 & Cty Road 95B	37	1.5	5,424.0	4,899.0	1,225.0	5,948.0	17,496.0	3,616.0	3,266.0	816.7	3,965.3
Mariani Packing Comp	EC-0287	Vacaville	6	1.2			307.0	307.0	0.0	0.0	255.8	0.0	
Mariani Packing Comp	EC-0288	Vacaville	6	1.2			307.0	307.0	0.0	0.0	255.8	0.0	
Mariani Packing Comp	EC-0289	Vacaville	6	1.2			307.0	307.0	0.0	0.0	255.8	0.0	
Mariani Packing Comp	EC-0290	Vacaville	6	1.2	166.0	139.0	154.0	157.0	616.0	138.3	115.8	128.3	130.8
Mariani Packing Comp	EC-0291	Vacaville	6	1.2	166.0	139.0	154.0	157.0	616.0	138.3	115.8	128.3	130.8
Pacific International Rice Mills	EC-0223	Woodland	24	1.5			662.0	1,283.0	1,945.0	0.0	0.0	441.3	855.3
Reclamation District	EC-0235 (note)	Reclamation District 108	37	1.5	26,502.0	24,609.0	7,572.0	35,966.0	94,649.0	17,668.0	16,406.0	5,048.0	23,977.3
River Garden Farms	EC-0273 (note)	River Garden Farms	35	1.5	32,412.0	30,366.0	10,293.0	37,362.0	110,433.0	21,608.0	20,244.0	6,862.0	24,908.0
Teichert Aggregates	EC-0240	Esparto	25	1.5	68.0	79.0	48.0	65.0	260.0	45.3	52.7	32.0	43.3
UC Davis	EC-0198	Vacaville	6	1.2			307.0	307.0	0.0	0.0	255.8	0.0	
UC Davis	EC-0199	Vacaville	6	1.2			307.0	307.0	0.0	0.0	255.8	0.0	
UC Davis	EC-0200	Vacaville	6	1.2			307.0	307.0	0.0	0.0	255.8	0.0	
UC Davis	EC-0201	Davis	17	1.5		2.0	403.0	46.0	451.0	0.0	1.3	268.7	30.7
UC Davis	EC-0203	Davis	17	1.5		1.0	429.0	54.0	484.0	0.0	0.7	286.0	36.0
UC Davis	EC-0320	Davis	17	1.5	558.0	465.0	568.0	590.0	2,181.0	372.0	310.0	378.7	393.3
Woodland Nut Oils	EC00312	Woodland	24	1.5	2.0	2.0	2.0	1.0	7.0	1.3	1.3	1.3	0.7

	Q1	Q2	Q3	Q4	Annual	Q1	Q2	Q3	Q4	
Rice burn credit applications under review by District. Offset quantities are estimated based on formulae in Rule	115,015.0	82,760.0	74,624.0	111,604.0	384,003.0	76,732.0	55,219.7	50,107.7	74,455.0	
Total Available Offsets	lb									
Total Retained Offsets	lb	55,192.5	25,174.0	14,356.0	53,577.0	148,299.4	36,795.0	16,782.7	9,570.7	35,718.0
Total Surrendered Offsets	lb	59,822.5	57,586.0	60,268.0	58,027.0	235,703.6	39,937.0	38,437.0	40,537.0	38,737.0
	Ton	29.91	28.79	30.13	29.01	117.85	19.97	19.22	20.27	19.37
Mitigation requirements	Ton	19.97	19.22	20.27	19.37	78.82	19.97	19.22	20.27	19.37
Excess (shortfall), ton	ton	9.94	9.57	9.87	9.65	39.03	0.00	0.00	0.00	0.00

Table 5. CPVVS Offset Plan (SOx)

Credit Holder	Cert. No	Reduction Site	Distance (miles)	Dist. Ratio	Original Offsets					Adjusted for Distance							
					Q1 lb	Q2 lb	Q3 lb	Q4 lb	Annual lb	Q1 lb	Q2 lb	Q3 lb	Q4 lb	Annual lb			
Adams Schwab and Adams	EC-0042	Woodland	24	1.5	4.0	4.0	4.0	4.0	5.0	17.0	2.7	2.7	2.7	2.7	3.3	11.3	
Conaway	Pending (note)	Woodland	25	1.5	3,465.0	3,217.5	990.0	4,702.5	12,375.0	2,310.0	2,145.0	660.0	3,135.0	8,250.0	425.3		
Grey K Holdings	EC-0303	Cty Rd 36 & Cty Rd 106	16	1.5	440.0		198.0		638.0	293.3	0.0	132.0	0.0	425.3			
Grey K Holdings	EC-0304	Cty Rd 35 & Cty Rd 104	16	1.5	183.0		82.0		265.0	122.0	0.0	54.7	0.0	176.7			
Grey K Holdings	EC-0305	Cty Rd 14 & Cty R 102	37	1.5	1,044.0	749.0	284.0	910.0	2,987.0	696.0	499.3	189.3	606.7	1,991.3			
Grey K Holdings	EC-0306	Cty Rd 16 & Cty Rd 116	37	1.5	577.0	277.0	191.0	337.0	1,382.0	384.7	184.7	127.3	224.7	821.3			
Grey K Holdings	EC-0307	Dunnigan	37	1.5	1,841.0	1,663.0	416.0	2,019.0	5,939.0	1,227.3	1,108.7	277.3	1,346.0	3,959.3			
Grey K Holdings	EC-0308	Cty Rd 7 & Cty Road 95B	37	1.5	947.0	855.0	214.0	1,039.0	3,055.0	631.3	570.0	142.7	692.7	2,036.7			
Laupe Panton	Pending (note)			1.5	1,011.0	4,272.0	3,943.0	1,129.0	10,355.0	674.0	2,848.0	2,628.7	752.7	6,903.3			
Mariani Packing Comp	EC-0287	Vacaville	6	1.2			30.0		30.0	0.0	0.0	25.0	0.0	25.0			
Mariani Packing Comp	EC-0288	Vacaville	6	1.2			30.0		30.0	0.0	0.0	25.0	0.0	25.0			
Mariani Packing Comp	EC-0289	Vacaville	6	1.2			30.0		30.0	0.0	0.0	25.0	0.0	25.0			
Mariani Packing Comp	EC-0290	Vacaville	6	1.2	13.0	11.0	12.0	12.0	48.0	10.8	9.2	10.0	10.0	40.0			
Mariani Packing Comp	EC-0291	Vacaville	6	1.2	13.0	11.0	12.0	12.0	48.0	10.8	9.2	10.0	10.0	40.0			
Pacific International Rice Mills	EC-0223	Woodland	24	1.5	0.0	0.0	4.0	7.0	11.0	0.0	0.0	2.7	4.7	7.3			
Reclamation District	EC-0235 (note)	Reclamation District 108	37	1.5	4,627.0	4,297.0	1,322.0	6,280.0	16,526.0	3,084.7	2,864.7	881.3	4,186.7	11,017.3			
River Garden Farms	EC-0273 (note)	River Garden Farms	35	1.5	4,818.0	4,474.0	1,377.0	6,539.0	17,208.0	3,212.0	2,982.7	918.0	4,359.3	11,472.0			
Teichert Aggregates	EC-0240	Esparto	25	1.5	12.0	14.0	9.0	11.0	46.0	8.0	9.3	6.0	7.3	30.7			
UC Davis	EC-0198	Vacaville	6	1.2			30.0		30.0	0.0	0.0	25.0	0.0	25.0			
UC Davis	EC-0199	Vacaville	6	1.2			30.0		30.0	0.0	0.0	25.0	0.0	25.0			
UC Davis	EC-0200	Vacaville	6	1.2			30.0		30.0	0.0	0.0	25.0	0.0	25.0			
UC Davis	EC-0201	Davis	17	1.5			81.0	9.0	90.0	0.0	0.0	54.0	6.0	60.0			
UC Davis	EC-0203	Davis	17	1.5			86.0	11.0	97.0	0.0	0.0	57.3	7.3	64.7			
UC Davis	EC-0258	Clarksburg	22	1.5	35.0	309.0	440.0	420.0	1,204.0	23.3	206.0	293.3	280.0	802.7			
Woodland Nut Oils	EC00312	Woodland	24	1.5	1.0	1.0	1.0	1.0	4.0	0.7	0.7	0.7	0.7	2.7			
					Q1	Q2	Q3	Q4	Annual	Q1	Q2	Q3	Q4	Annual			
Total Available Offsets					lb	19,031.0	20,154.5	9,846.0	23,443.5	72,475.0	12,691.7	13,440.0	6,598.0	15,633.0	48,362.7		
Rice burn credit applications under review by District.					lb	11,400.0	11,400.0	9,846.0	11,400.0	44,046.0	7,600.0	7,600.0	6,564.0	7,600.0	48,362.7		
Offset quantities are estimated based on formulae in Rule					lb	7,631.0	8,754.5	0.0	12,043.5	28,429.0	5,091.7	5,840.0	34.0	8,033.0	18,998.7		
					Ton	3.82	4.38	0.00	6.02	14.21	2.55	2.92	0.02	4.02	9.50		
					CEC Mitigation (1:1 on an annual basis)					YSAQMD Offsets (1:1, adjusted for distance)							
Mitigation requirements					Ton	3.61	3.49	3.67	3.46	14.20					0.00		
Excess (shortfall), ton					ton	0.21	0.93	(3.67)	2.54	0.01	2.55	2.92	0.02	4.02	9.50		

Table 6. CPVVS Offset Plan (CO)

Credit Holder	Cert. No	Reduction Site	Distance (miles)	Dist. Ratio	Adjusted for Distance										
					Q1 lb	Q2 lb	Q3 lb	Q4 lb	Annual lb	Q1 lb	Q2 lb	Q3 lb	Q4 lb	Annual lb	
Adams Schwab and Adams	EC-0042	Woodland	24	1.5	138.0	135.0	136.0	187.0	596.0	92.0	90.0	90.7	124.7	397.3	
Conaway	Pending (note)	Woodland	25	1.5	180,810.0	167,895.0	51,660.0	245,385.0	645,750.0	120,540.0	111,930.0	34,440.0	163,590.0	430,500.0	
Jack Wallace	EC-0110	Woodland	24	1.5	109,346.0	56,515.0	35,144.0	68,626.0	269,631.0	72,897.3	37,676.7	23,429.3	45,750.7	179,754.0	
Laupe Pantan	Pending (note)			1.5	45,339.0	84,366.0	65,277.0	50,673.0	245,655.0	30,226.0	56,244.0	43,518.0	33,782.0	163,770.0	
Mariani Packing Comp	EC-0287	Vacaville	6	1.2			50.0		50.0	0.0	0.0	41.7	0.0	41.7	
Mariani Packing Comp	EC-0288	Vacaville	6	1.2			446.0		446.0	0.0	0.0	371.7	0.0	371.7	
Mariani Packing Comp	EC-0289	Vacaville	6	1.2			843.0		843.0	0.0	0.0	702.5	0.0	702.5	
Mariani Packing Comp	EC-0290	Vacaville	6	1.2	1,837.0	1,533.0	1,701.0	1,734.0	6,805.0	1,530.8	1,277.5	1,417.5	1,445.0	5,670.8	
Mariani Packing Comp	EC-0291	Vacaville	6	1.2	1,837.0	1,533.0	1,701.0	1,734.0	6,805.0	1,530.8	1,277.5	1,417.5	1,445.0	5,670.8	
Pacific Coast Producers	EC 0206	Davis	17	1.5	0.0	0.0	5,990.0	0.0	5,990.0	0.0	0.0	3,993.3	0.0	3,993.3	
Pacific International Rice Mills	EC-0223	Woodland	24	1.5	0.0	0.0	122.0	218.0	340.0	0.0	0.0	81.3	145.3	226.7	
Reclamation District	EC-0235 (note)	Reclamation District 108	37	1.5	241,459.0	224,212.0	68,988.0	327,694.0	862,353.0	160,972.7	149,474.7	45,992.0	218,462.7	574,902.0	
River Garden Farms	EC-0273 (note)	River Garden Farms	35	1.5	251,412.0	233,454.0	71,832.0	341,202.0	897,900.0	167,608.0	155,636.0	47,888.0	227,468.0	598,600.0	
Teichert Aggregates	EC-0240	Esparto	25	1.5	359.0	416.0	250.0	342.0	1,367.0	239.3	277.3	166.7	228.0	911.3	
UC Davis	EC-0198	Vacaville	6	1.2			50.0		50.0	0.0	0.0	41.7	0.0	41.7	
UC Davis	EC-0199	Vacaville	6	1.2			446.0		446.0	0.0	0.0	371.7	0.0	371.7	
UC Davis	EC-0200	Vacaville	6	1.2			843.0		843.0	0.0	0.0	702.5	0.0	702.5	
UC Davis	EC-0320	Davis	17	1.5	4,630.0	3,858.0	4,710.0	4,888.0	18,086.0	3,086.7	2,572.0	3,140.0	3,258.7	12,057.3	
Woodland Nut Oils	EC00312	Woodland	24	1.5	460.0	546.0	572.0	405.0	1,983.0	306.7	364.0	381.3	270.0	1,322.0	
Total Available Offsets					lb	837,627.0	774,463.0	310,761.0	1,043,088.0	2,965,939.0	559,030.3	516,819.7	208,187.3	695,970.0	1,980,007.3
Total Retained Offsets					lb	684,661.8	625,322.9	156,027.1	892,473.6	2,358,485.4	456,441.2	416,881.9	104,018.1	594,982.4	1,572,323.6
Total Surrendered Offsets					lb	152,965.2	149,140.2	154,733.9	150,614.4	607,453.6	102,589.1	99,937.8	104,169.3	100,987.6	407,683.8
					Ton	76.48	74.57	77.37	75.31	303.73	51.29	49.97	52.08	50.49	203.84
Mitigation requirements					Ton	CEC Mitigation (1:1 on an annual basis)					YSAQMD Offsets (1:1, adjusted for distance)				
					Ton					0.00	51.29	49.97	52.08	50.49	203.84
Excess (shortfall), ton					ton	76.48	74.57	77.37	75.31	303.73	0.00	0.00	0.00	0.00	0.00

Rice burn credit applications under review by District. Offset quantities are estimated based on formulae in Rule

**STATE OF CALIFORNIA
ENERGY RESOURCES
CONSERVATION AND DEVELOPMENT COMMISSION**

In the Matter of:)	Docket No. 08-AFC-11
)	
Application for Certification,)	PROOF OF SERVICE
for the CPV VACA STATION POWER PLANT)	
PROJECT)	(February 18, 2009)
by CPV Vacaville, LLC)	
_____)	

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CPV VACA STATION POWER PLANT PROJECT
CEC Docket No. 08-AFC-11

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DECLARATION OF SERVICE

I, Paul Kihm, declare that on June 15, 2009, I served and filed copies of the attached:

UPDATED EMISSION OFFSET PLAN

to all parties identified on the Proof of Service List above in the following manner:

California Energy Commission Docket Unit

- Transmission via electronic mail and by depositing one original paper copy with FedEx overnight mail delivery service at Costa Mesa, California, with delivery fees thereon fully prepaid and addressed to the following:


CALIFORNIA ENERGY COMMISSION
Attn: DOCKET NO. 08-AFC-11
1516 Ninth Street, MS-4
Sacramento, California 95814-5512
docket@energy.state.ca.us

For Service to All Other Parties

- Transmission via electronic mail to all email addresses on the Proof of Service list; and
- by depositing one paper copy with the United States Postal Service via first-class mail at Costa Mesa, California, with postage fees thereon fully prepaid and addressed as provided on the Proof of Service list to those addresses **NOT** marked "email preferred."

I further declare that transmission via electronic mail and U.S. Mail was consistent with the requirements of California Code of Regulations, title 20, sections 1209, 1209.5, and 1210.

I declare under penalty of perjury that the foregoing is true and correct. Executed on June 15, 2009, at Costa Mesa, California.


Paul Kihm