

## DOCKETED

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<b>Project Title:</b>	Compliance - Application for Certification SMUD's Proctor & Gamble Cogeneration Project
<b>TN #:</b>	204613
<b>Document Title:</b>	Procter & Gamble - Supplemental Information to 10-30-2014 Petition to Amend
<b>Description:</b>	N/A
<b>Filer:</b>	Mary Dyas
<b>Organization:</b>	CH2M Hill
<b>Submitter Role:</b>	Applicant Consultant
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<b>Docketed Date:</b>	5/14/2015

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May 13, 2015

Ms. Mary Dyas  
California Energy Commission  
Siting, Transmission and Engineering Division  
1516 9th Street MS-46  
Sacramento, CA 95814-5512

RE: Supplement #1 to the Sacramento Cogeneration Authority's Procter and Gamble  
Cogeneration Project (93-AFC-2C) Auxiliary Boiler 1B Project Petition to Amend

Dear Ms. Dyas:

The Sacramento Cogeneration Authority (SCA) respectfully submits this Supplement #1 as additional information for its October 2014 petition to the California Energy Commission (CEC) for post-certification license modification for the Sacramento Cogeneration Authority's (SCA) Procter and Gamble Cogeneration Project (PGCP) (93-AFC-2C) located at 5000 83rd Street, Sacramento, California.

Once you have reviewed this Supplement, please e-file it.

Please call me if you have any questions.

Sincerely,

CH2M HILL

A handwritten signature in blue ink that reads "John L. Carrier".

John L. Carrier, J.D.  
Program Manager

c: SMUD Project File

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*Supplement 1: Additional Air Quality  
Information*

**Addition of an Auxiliary Boiler and  
Associated Facilities**  
for the  
**Sacramento Cogeneration Authority's  
Procter and Gamble Cogeneration  
Project**

**Sacramento, California  
(93-AFC-2C)**

Submitted to  
**California Energy Commission**

Submitted by  
**Sacramento Cogeneration Authority**

May 2015

With Technical Assistance by



Sierra Research  
and



**CH2MHILL**

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# Acronyms and Abbreviations

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CO	carbon monoxide
ERCs	emission reduction credits
FRAQMD	Feather River Air Quality Management District
lbs	pounds
NO <sub>x</sub>	oxides of nitrogen
PGCP	Procter and Gamble Cogeneration Project
PM <sub>10</sub>	particulate matter less than 10 micrometers in aerodynamic diameter
PM <sub>2.5</sub>	particulate matter less than 2.5 micrometers in aerodynamic diameter
PTA	Petition to Amend
Q	quarter
SCA	Sacramento Cogeneration Authority
SMAQMD	Sacramento Metropolitan Air Quality Management District
SMUD	Sacramento Municipal Utility District
SO <sub>x</sub>	oxides of sulfur, or sulfur oxides
SO <sub>2</sub>	sulfur dioxide
VOC	volatile organic compound

## SECTION 1.0

# Introduction

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Sacramento Cogeneration Authority's (SCA) October 2014 petition for post-certification license amendment (Petition to Amend, or PTA) proposes to install an additional auxiliary boiler (Boiler 1B) and associated facilities at the Procter and Gamble Cogeneration Project (PGCP) site. The environmental impacts assessment presented in the PTA concludes that there will be no significant adverse environmental impacts associated with the implementation of the actions specified in the PTA. The associated air quality impacts were determined to be less than the levels currently being experienced at the PGCP facility. Therefore, the PTA concludes that not only will no adverse air quality effects on the environment occur because of the proposed changes to the project, but some minor environmental benefits will occur.

Nonetheless, the Sacramento Metropolitan Air Quality Management District (SMAQMD) has determined that the project triggers emission offset requirements for pollutants nitrogen oxides (NO<sub>x</sub>), volatile organic compounds (VOCs), fine particulate matter (PM<sub>10</sub>), and ultra-fine particulate matter (PM<sub>2.5</sub>) under its rules and regulations. Accordingly, SCA proposes to use emission reduction credits (ERCs) owned by the Sacramento Municipal Utility District (SMUD) and located in the Feather River Air Quality Management District (FRAQMD). This will require that the ERCs be transferred from the FRAQMD to the SMAQMD for use at SCA's Sacramento facility.

SECTION 2.0

# Supplemental Air Quality Information

Appendix A provides correspondence between SCA and the SMAQMD and FRAQMD to effectuate this ERC transfer. The ERC transfer will be subject to an offset ratio of 2 to 1, as well as an adjustment to the ERC Certificate quantities to reflect changes to FRAQMD Rule 10.9, "Rice Straw Emission Reduction credits and Banking." Consequently, significantly more ERCs will be provided than there are emission offset needs for the project.

The project does not trigger offsets for emissions of sulfur oxides (SOx) under SMAQMD Rule 202, "New Source Review." This is because total SOx emissions from the existing PGCP facility are less than the SMAQMD offset threshold (13,650 lbs/quarter) and the addition of the project SOx emissions of 133 lbs/quarter (0.17 tons/year) do not cause the facility to exceed the offset threshold. Additionally, as noted in Table 3.1-6 of the PTA, ambient sulfur dioxide (SO<sub>2</sub>) levels in the project area are significantly below state and federal ambient air quality standards. Finally, to the extent that SOx emissions contribute to the formation of PM<sub>2.5</sub>, it is noted that sufficient actual PM<sub>2.5</sub> offsets will be provided to fully offset the combined project emissions of PM<sub>2.5</sub> and SOx.

Table S1-1 below shows the project emissions, and Table S1-2 shows the expected quantity of SMUD FRAQMD ERCs to be provided for the project.

TABLE S1-1  
SCA Boiler 1B Project Emissions

	Q1 (lbs)	Q2 (lbs)	Q3 (lbs)	Q4 (lbs)	Total (tons)
VOC	742	835	235	285	1.05
NOx	1,443	1,550	737	658	2.19
SOx	118	133	37	45	0.17
PM10/PM2.5	978	1,100	309	376	1.38
CO	12,871	14,488	4,057	4,940	18.18

Q = quarter

TABLE S1-2  
Expected Quantity of ERCs Required for the SCA Boiler 1B Project

	Q1 (lbs)	Q2 (lbs)	Q3 (lbs)	Q4 (lbs)	Total (tons)
VOC	2,506	2,821	793	964	3.54
NOx	4,275	4,592	2,182	1,951	6.50
SOx	---	---	---	---	---
PM10	3,221	3,625	1,019	1,239	4.55
PM2.5	3,032	3,412	959	1,167	4.29*
CO	---	---	---	---	---
<b>Total*</b>					<b>14.59</b>

\* PM2.5 is not included in the total because that would be double-counting.

Thus, as indicated in Table S1-2, sufficient quantities of PM<sub>2.5</sub> ERCs will be provided to fully mitigate both PM<sub>2.5</sub> and SOx emissions from the project, and NOx and VOC ERCs will fully mitigate project emissions of these pollutants.

**Appendix A**  
**SCA, SMAQMD and FRAQMD Correspondence**

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# SACRAMENTO MUNICIPAL UTILITY DISTRICT


**Date:** April 17, 2015

EM 15-012

**To:** Frankie McDermott, General Manager's Office

**From:** René Toledo, Environmental Management

**Concur:**  Chris Moffitt, Generation Management

 Ross Gould, Power Generation

**Subject:** Request for Signature of the Sacramento Metropolitan Air Quality Management District (SMAQMD) Emission Reduction Credit (ERC) Transfer Request Letter

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- |  |   |
|--|---|
| <input checked="" type="checkbox"/> Sent for your Review | <input type="checkbox"/> For Your Files   |
| <input checked="" type="checkbox"/> For Your Signature   | <input type="checkbox"/> For Distribution |
| <input type="checkbox"/> Other:                          | <input type="checkbox"/> For Processing   |
- 

Attached for your review and signature is a cover letter requesting SMAQMD approve that a portion of FRAQMD ERC Certificate #99001-T2 be used by the Sacramento Cogeneration Authority (SCA) auxiliary boiler project.

On April 6, 2015, the FRAQMD Board of Directors approved through Resolution 2015-03 (attached) that the entirety of ERC Certificate No. 99001-T2's credits be available for use in SMAQMD. Due to staffing issues, the certificate was not recertified by FRAQMD prior to the resolution being approved by its Board of Directors.

Similar to the letter previously submitted to FRAQMD, this letter details the steps SMAQMD must take to transfer and adjust the ERCs for use by the SCA project.

The quantities of credits to be transferred and used by the SCA Boiler Project have already been approved in Staff Summary Sheet SCA 15-007 (dated 03/03/2015). The balance of these ERCs will be reissued to SMUD in a certificate to be kept in the Treasury safe.

Please contact me at extension x7452 with any questions.

Thank you,



# Sacramento Cogeneration Authority

P.O.Box 15830, Sacramento, CA 95852-1830

SCA Cogeneration Project

Ms. Aleta Kennard  
Sacramento Metropolitan Air Quality Management District  
777 12<sup>th</sup> Street, 3<sup>rd</sup> Floor  
Sacramento, CA 95814-1908

**Re: Transfer of ERCs from FRAQMD to SMAQMD for the  
SCA Auxiliary Boiler 1B Project (A/C Applications #24398 and 24399)**

Dear Ms. Kennard:

The Sacramento Cogeneration Authority (“SCA”) requests the approval of an inter-district transfer of Emission Reduction Credits (“ERCs”) from the Feather River Air Quality Management District (“FRAQMD”) to the Sacramento Metropolitan Air Quality Management District (“SMAQMD”) pursuant to California Health and Safety Code Section 40709.6. SCA will utilize ERCs currently owned by the Sacramento Municipal Utility District (“SMUD”) which are defined in, and governed by, the FRAQMD pursuant to Certificate #99001-T2, as emission offsets for its Auxiliary Boiler 1B project located in Sacramento as proposed in Authority to Construct (A/C) Applications #24398 and 24399.

SCA requested approval from the FRAQMD for this inter-district ERC transfer and the item was presented to the FRAQMD Board of Directors at its April 6, 2015 meeting (see March 24, 2015 letter from SCA to FRAQMD in Attachment 1). Resolution #2015-03 was approved unanimously and the entire certificate was approved for use in SMAQMD (see Attachment 2).

As described later in this document, the total quantity of NO<sub>x</sub>, VOC, and PM<sub>10</sub> ERCs needed for the Boiler 1B project is less than 15 tons per year including the SMAQMD’s 2 to 1 distance ratio. This quantity is much less than SMAQMD’s major source thresholds for NO<sub>x</sub> (25 tons/year), VOC (25 tons/year) and PM<sub>10</sub> (100 tons/year). Therefore, the SMAQMD APCO has been delegated authority to approve the transfer of these Boiler 1B Project ERCs into the SMAQMD.

As approved by the FRAQMD Board, the entire current value of SMUD’s ERC Certificate #99001-T2 has been transferred without any adjustment to its quantities to reflect the requirements of FRAQMD Rule 10.9. We note that although the transfer of ERC appears to be slightly greater than the major source threshold of 25 tons/year for both NO<sub>x</sub> and VOC (see Table 4 in Attachment 1), the total quantity of ERCs required for the Boiler 1B project is less than 15 tons/year and much less than the SMAQMD major source thresholds (25 tons/year each). Therefore, even if the ERCs are not adjusted to reflect the requirements of FRAQMD Rule 10.9, this ERC transfer for the Boiler 1B project will nonetheless only require SMAQMD APCO approval.

*FRAQMD Rule 10.9 ERC Adjustment*

As noted in SCA’s March 24, 2015 letter, the value of SMUD ERC Certificate #99001-T2 must be adjusted to reflect the current requirements of FRAQMD Rule 10.9, “Rice Straw Emission Reduction Credits and Banking.” ERC Certificate #99001-T2 is a subset of two separate original FRAQMD ERC Certificates, Certificate #99001 and Certificate #2001-30 issued to the Leal Family Trust on December 15, 2000 and October 2, 2001, respectively (see Attachment 3 for FRAQMD ERC background data). Both certificates were created from the reduction in rice straw burning on the same 10,695.5 eligible acres of land in Sutter County. Rule 10.9, Section C.2 requires the calculation of ERCs by adding all of an applicant’s eligible parcels as follows:

*C.2 The available acreage for generating ERCs shall be determined by adding all of the rice growing acreage of a FRAQMD applicant’s eligible parcels and multiplying by 75% x HBF. . . .*

Therefore, pursuant to Rule 10.9 the most appropriate methodology to determine the adjusted value of Certificate #99001-T2 is to base the calculation on the total 10,695.5 eligible acres used by the same applicant in both Certificates #99001 and 2001-30. The Rule 10.9 adjustment would then be calculated as described in SCA’s March 24, 2015 letter, resulting in the adjustment percentages listed in the following Table 1 applied to ERC Certificate #99001-T2.

<b>Table 1</b>				
<b>Percent of Original Value after Rule 10.9 Adjustment</b>				
<b>Sum of Certificates #99001 and 2001-30 (lb)</b>				
	Q1	Q2	Q3	Q4
VOC	59.2%	59.2%	59.2%	59.2%
NOx	67.5%	67.5%	67.5%	67.5%
SOx	59.6%	59.6%	59.6%	59.6%
PM <sub>10</sub>	64.5%	64.5%	64.5%	64.5%
CO	64.1%	64.1%	64.1%	64.1%

Maximum quarterly emissions for the SCA Boiler 1B project are summarized in Table 2.

<b>Table 2</b>					
<b>SCA Boiler 1B Project Emissions</b>					
	Q1 (lb)	Q2 (lb)	Q3 (lb)	Q4 (lb)	Total (tons)
VOC	742	835	235	285	1.05
NOx	1,443	1,550	737	658	2.19
SOx	118	133	37	45	0.17
PM <sub>10</sub> /PM <sub>2.5</sub>	978	1,100	309	376	1.38
CO	12,871	14,488	4,057	4,940	18.18

Based on the quarterly emissions in Table 2 and the ERC adjustment percentages in Table 1, along with the 2:1 distance ratio and an assumed 0.9414 PM<sub>2.5</sub> fraction of PM<sub>10</sub> from rice burning per ARB, the quantities of ERCs required from Certificate #99001-T2 are summarized in Table 3.

<b>Table 3</b>						
<b>Quantity of ERCs Required for the SCA Boiler 1B Project from ERC Certificate #99001-T2</b>						
	Q1 (lb)	Q2 (lb)	Q3 (lb)	Q4 (lb)	Total (tons)	Major Source (tons/yr)
VOC	2,506	2,821	793	964	3.54	25
NOx	4,275	4,592	2,182	1,951	6.50	25
SOx	-	-	-	-	-	-
PM <sub>10</sub>	3,221	3,625	1,019	1,239	4.55	100
CO	-	-	-	-	-	-
				Total =	14.59	

Table 3 indicates that the quantities of ERCs required for transfer into the SMAQMD via ERC Certificate 99001-T2 are well under the SMAQMD major source thresholds for NOx, VOC, and PM<sub>10</sub>. Therefore, authority to approve this transfer is delegated to the APCO.

*California Health and Safety Code Section 40709.6*

California Health and Safety Code Section 40709.6 allows for the offset of emissions at a stationary source located in one air district with emissions reductions credited to a stationary source in another air district, as long as both stationary sources are located within the same air basin. Accordingly, the subject ERCs and the SCA facility at which they would be used are both located in the Sacramento Valley Air Basin. Furthermore, California Health and Safety Code Section 40709.6 stipulates that inter-district ERC transfers must be approved by a resolution adopted by the governing boards of both air districts or by the air pollution control officers, if such authority is delegated by the boards. The evaluation of the transaction includes factors such as the impact of the offset on air quality, public health, and the regional economy.

### *Air Quality*

SMAQMD permits staff is currently evaluating SCA Boiler 1B project permit application (A/C App.'s #24398 and 24399) and will only grant the requested authorization to construct if it determines that the project complies with relevant federal and state rules, regulations, and air quality standards. SCA has demonstrated in its application that the proposed increase in the facility's emissions will not to cause a significant adverse effect on air quality in the FRAQMD. Emissions and health risk impacts have been evaluated for the project and determined to be insignificant by SCA, and we expect that the SMAQMD will reach the same conclusion and issue an authority to construct for the project in the near future.

Additionally, SCA notes that the project will result in a net emission reduction from the SCA facility, since the new auxiliary boiler will generally displace the operation of a larger combined cycle turbine when it is not economical to operate the turbine for electrical power production. The SMAQMD's regulations do not allow for the netting of facility-wide emission reductions in order to limit a project's exposure to emission offsets, and consequently require that the new Boiler 1B be evaluated as though there are no corresponding on-site emission reductions. Thus, the Boiler 1B project will both result in a net emission reduction from the SCA facility and will provide emission offsets in accordance with SMAQMD regulations.

Finally, the transfer of the aforementioned ERCs will prevent their use to offset emission increases in the future, while the offset ratios required by SMAQMD's New Source Review regulations will ensure that a much greater amount of ERCs will be surrendered than pollutants emitted. Therefore, the transfer of the subject ERCs will result in a net air quality benefit for the Sacramento Valley Air Basin.

### *Public Health*

The NO<sub>x</sub>, PM<sub>10</sub>, or VOC emissions resulting from the operations of SCA's facility in SMAQMD will not have any detrimental effects on public health in the SMAQMD based on the air quality analysis prepared by SCA for its SMAQMD permit application. Additionally, because the project will result in a net decrease in emissions from the SCA facility by displacing the operation of larger turbine combustion sources, there will likely be a future public health benefit from the project.

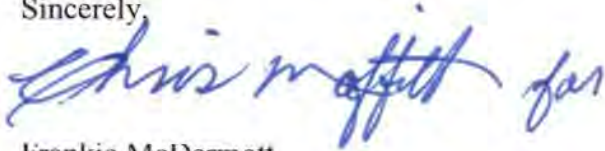
### *Regional Economy*

SCA does not foresee any negative consequences to the regional economy that would result from the proposed ERC transfer. These ERCs would allow continued operation of a successful business entity in the Sacramento Valley Air Basin and an employer of many residents of Sacramento. The additional jobs, significant capital investment, and ongoing manufacturing operations associated with the project will have a positive impact on the regional economy while fully complying with very stringent air quality regulatory requirements.

Based on the foregoing reasons, we request that the SMAQMD evaluate and approve the transfer of the listed NO<sub>x</sub>, PM<sub>10</sub>, and VOC ERCs in Table 3 between FRAQMD and SMAQMD.

Thank you for your time and consideration in this matter. Please contact René Toledo at (916) 732-7452 if you have any questions or comments or need additional information.

Sincerely,

A handwritten signature in blue ink that reads "Frankie McDermott" followed by a stylized flourish.

Frankie McDermott  
Chief Generation & Grid Assets Officer  
Sacramento Cogeneration Authority

Attachments

cc: Brian Krebs, SMAQMD  
Venk Reddy, SMAQMD  
Jeffrey Adkins, Sierra Research

ATTACHMENT 1

March 24, 2015 letter from  
SCA to FRAQMD



# Sacramento Cogeneration Authority

P.O.Box 15830, Sacramento, CA 95852-1830

SCA Cogeneration Project

March 24, 2015  
SCA 15-010

Mr. Christopher D. Brown  
Air Pollution Control Officer  
Feather River Air Quality Management District  
541 Washington Avenue  
Yuba City, CA 95991

**Re: Transfer of ERCs from Feather River Air Quality Management District to Sacramento Metropolitan Air Quality Management District**

Dear Mr. Brown:

The Sacramento Cogeneration Authority ("SCA") requests the approval of an inter-district transfer of Emission Reduction Credits ("ERCs") from the Feather River Air Quality Management District ("FRAQMD") to the Sacramento Metropolitan Air Quality Management District ("SMAQMD") pursuant to California Health and Safety Code Section 40709.6. SCA will utilize ERCs currently owned by the Sacramento Municipal Utility District ("SMUD") which are defined in, and governed by, the FRAQMD pursuant to Certificate #99001-T2, as emission offsets for its Auxiliary Boiler 1B project located in the SMAQMD.

### ***Relationship Between SCA and SMUD***

SCA is a Joint Powers Authority formed by SMUD and the Sacramento Municipal Utility District Financing Authority (SFA) to jointly exercise powers they have in common for their common benefit. SCA may enter into contract and issue bonds, among other things, in support of the construction and operation of the Procter & Gamble Cogeneration Project in Sacramento. The SCA Commission is the governing body of SCA and consists of the seven members of the SMUD Board of Directors. As such, SMUD may provide credits to SCA as part of any air quality permit actions associated with the facility.

### ***SMUD FRAQMD ERC Holdings and Transfer***

SMUD previously submitted an application to the FRAQMD dated June 24, 2014 to "recertify" ERC Certificate #99001-T2 pursuant to the requirements of Rule 10.9, "Rice Straw Emission Reduction Credits and Banking" (see Attachment 1). As demonstrated in this letter, once the Rule 10.9 "recertification" adjustment is made, the total quantity of ERCs transferred for the Boiler 1B project will not exceed 10 tons. We understand that the FRAQMD Board has authorized the Air Pollution Control Officer (APCO) to approve ERC transfers of up to 10 tons per calendar year.



However, in the event that the Rule 10.9 recertification of Certificate #99001-T2 cannot be accomplished prior to the next scheduled FRAQMD Board meeting, we ask instead that this transfer be placed on the Board agenda for the April 2015 meeting. The transfer quantity would be the values listed in Table 6 divided by 0.44 (our estimate of the worst case potential recertification adjustment to ERC value), for a total of 21.4 tons of ERCs transferred.

**ERC Recertification**

ERC Certificate #99001-T2 is a subset of two separate original FRAQMD ERC Certificates, Certificate #99001 and Certificate #2001-30 issued to the Leal Family Trust on December 15, 2000 and October 2, 2001, respectively. Both certificates were created from the reduction in rice straw burning on the same 10,695.5 eligible acres of land in Sutter County. As part of this recertification, SCA requests that the recertified value of Certificate #99001-T2 be based on the total available acreage of both Certificates #99001 and 2001-30.

The total value of the original Certificates #99001 and 2001-30 is shown in Table 1. Detailed calculations are provided in Attachment 2.

<b>Table 1</b>					
<b>Sum of ERC Certificates #99001 and 2001-30 (lb)</b>					
	Q1	Q2	Q3	Q4	Total
VOC	61,707	39,928	10,890	68,967	181,492
NO <sub>x</sub>	59,878	38,745	10,566	66,923	176,112
SO <sub>x</sub>	14,354	9,288	2,533	16,043	42,218
PM <sub>10</sub>	75,927	49,129	13,399	84,859	223,314
CO	695,711	450,166	122,772	777,559	2,046,208

FRAQMD adopted Rule 10.9 in 2009 and amended the rule in 2014 several years after these ERC certificates were originally issued. Rule 10.9 requires “recertification” of all rice straw ERCs to reflect the current Rule 10.9 emission factors and assumptions. Table 2 shows the ERCs available from the 10,695.5 eligible acres of rice fields from Certificates #99001 and 2001-30 based on the requirements of Rule 10.9.

<b>Table 2</b>					
<b>Rule 10.9 Recalculated Sum of</b>					
<b>Certificates #99001 and 2001-30 (lb)</b>					
	Q1	Q2	Q3	Q4	Total
VOC	36,533	23,639	6,447	40,831	107,450
NO <sub>x</sub>	40,419	26,154	7,133	45,175	118,880
SO <sub>x</sub>	8,550	5,533	1,509	9,556	25,148
PM <sub>10</sub>	48,970	31,686	8,642	54,731	144,028
CO	446,168	288,697	78,735	498,658	1,312,258

As indicated in Table 2, Rule 10.9 results in fewer ERCs than in the original ERC Certificates #99001 and 2001-30. Table 3 shows the percentage of the original ERC value remaining after adjustment for Rule 10.9.

<b>Table 3</b>				
<b>Percent of Original Value after Rule 10.9 Adjustment</b>				
<b>Sum of Certificates #99001 and 2001-30 (lb)</b>				
	Q1	Q2	Q3	Q4
VOC	59.2%	59.2%	59.2%	59.2%
NOx	67.5%	67.5%	67.5%	67.5%
SOx	59.6%	59.6%	59.6%	59.6%
PM <sub>10</sub>	64.5%	64.5%	64.5%	64.5%
CO	64.1%	64.1%	64.1%	64.1%

Table 4 shows the current value of SMUD Certificate #99001-T2 prior to adjustment for Rule 10.9.

<b>Table 4</b>					
<b>Current Value of SMUD ERC</b>					
<b>Certificate #99001-T2 (lb)</b>					
	Q1	Q2	Q3	Q4	Total
VOC	20,350	13,167	3,591	22,744	59,852
NOx	17,094	11,061	3,016	19,105	50,276
SOx	4,706	3,045	831	5,260	13,842
PM <sub>10</sub>	22,894	14,814	4,040	25,587	67,335
CO	-	-	-	-	-

Table 5 shows the remaining value of SMUD Certificate #99001-T2 after adjustment for Rule 10.9 using the percentages in Table 3 above.

<b>Table 5</b>					
<b>Rule 10.9 Recalculated Value of SMUD</b>					
<b>ERC Certificate #99001-T2 (lb)</b>					
	Q1	Q2	Q3	Q4	Total
VOC	12,048	7,795	2,126	13,465	35,434
NOx	11,539	7,466	2,036	12,896	33,938
SOx	2,803	1,814	495	3,133	8,245
PM <sub>10</sub>	14,766	9,554	2,606	16,503	43,428
CO	-	-	-	-	-

### ***Boiler 1B Project Background***

The SCA Cogeneration facility is located in Sacramento and is comprised of two General Electric LM6000 SPRINT/EFS combined-cycle gas turbines (Units #1A and #1B) which produce both electricity and steam. The facility also includes a simple cycle gas turbine ("Unit #1C") for peak power production. The steam produced by the combined cycle turbines is used to power a steam turbine for additional electricity production, as well as to supply the adjacent Procter & Gamble ("P&G") facility with steam for its production needs. SCA also has an existing 108.7 MMBtu/hr natural gas fired Babcock and Wilcox boiler ("Boiler 1A") used solely to produce steam for the P&G facility. This project proposes to install a second 108.7 MMBtu/hr natural gas fired Cleaver Brooks Boiler ("Boiler 1B") to also only provide steam to the P&G facility.

The current Steam Sales Agreement between SCA and the P&G facility contractually obligates SCA to have at least two sources of steam available to the manufacturing facility. Currently when only one combined cycle turbine is operating, Auxiliary Boiler 1A is the second steam source. Accordingly, the proposed new Auxiliary Boiler 1B will allow the turbines to shut down when it is not environmentally beneficial and/or economically advantageous to operate the larger combined cycle turbines for the sole purpose of complying with the Steam Sales Agreement. During this type of operating scenario, steam will be provided to the P&G manufacturing facility by only the two auxiliary boilers (the proposed new Cleaver Brooks Boiler 1B and the existing Babcock and Wilcox Boiler 1A) operating in parallel to support the steam requirements of the P&G facility. This operating configuration will result in much lower air pollutant emissions from the SCA facility, including much lower greenhouse gas emissions.

The proposed project has triggered SMAQMD's New Source Review emission offset requirements. SCA has procured the NO<sub>x</sub>, PM<sub>10</sub>, and VOC ERCs needed for the project from SMUD Certificate #99001-T2 located in the FRAQMD, which is within the Sacramento Valley Air Basin. Consequently, SCA is requesting the approval of an inter-district transfer of ERCs from FRAQMD to SMAQMD, pursuant to California Health and Safety Code, Section 40709.6.

The total quantity of ERCs proposed for transfer to the SMAQMD for the SCA Boiler 1B project is expected to be 9.42 tons, including the required SMAQMD 2 to 1 offset ratio. The required ERC quantity will be finalized by SMAQMD upon completion of its analysis of the ERC certificates and SCA's permit application, but is expected to be very close to this 9.42 ton value. SCA is requesting FRAQMD APCO approval to export the aforementioned ERC quantities from Certificate #99001-T2 after it has gone through its Rule 10.9 recertification adjustment as listed below.

<b>Table 6</b>					
<b>Quantity of ERCs Required for the SCA Boiler 1B</b>					
<b>Project from ERC Certificate #99001-T2</b>					
	Q1 (lb)	Q2 (lb)	Q3 (lb)	Q4 (lb)	Total (tons)
VOC	1,484	1,670	469	571	2.10
NO <sub>x</sub>	2,886	3,100	1,473	1,317	4.39
SO <sub>x</sub>	-	-	-	-	-
PM <sub>10</sub>	2,077	2,338	657	799	2.94
CO	-	-	-	-	-
				Total =	9.42

**California Health and Safety Code Section 40709.6**

California Health and Safety Code Section 40709.6 allows for the offset of emissions at a stationary source located in one air district with emissions reductions credited to a stationary source in another air district, as long as both stationary sources are located within the same air basin. Accordingly, the subject ERCs and the SCA facility at which they would be used are both located in the Sacramento Valley Air Basin. Furthermore, California Health and Safety Code Section 40709.6 stipulates that inter-district ERC transfers must be approved by a resolution adopted by the governing boards of both air districts or by the air pollution control officers, if such authority is delegated by the boards. The evaluation of the transaction includes factors such as the impact of the offset on air quality, public health, and the regional economy.

**Air Quality**

SMAQMD is currently waiting for SCA to surrender the ERCs required for the permit. SMAQMD will not grant the requested authorization to construct unless it determines that the project complies with relevant federal and state rules, regulations, and air quality standards. The proposed increase in the facility's emissions will not cause a significant adverse effect on air quality in the FRAQMD. Emissions and health risk impacts have been evaluated for the project and determined to be insignificant by SCA, and we expect that the SMAQMD will reach the same conclusion and issue an authority to construct for the project in the near future.

Additionally, we note that the project will result in a net emission reduction from the SCA facility, since the new auxiliary boiler will generally displace the operation of a larger combined cycle turbine when it is not economical to operate the turbine for electrical power production. The SMAQMD's regulations do not allow for the netting of facility-wide emission reductions in order to limit a project's exposure to emission offsets, and consequently require that the new Boiler 1B be evaluated as though there are no corresponding on-site emission reductions. Thus, the Boiler 1B project will both result in a net emission reduction from the SCA facility and will provide emission offsets in accordance with SMAQMD regulations.

Finally, the transfer of the aforementioned ERCs will prevent their use to offset emissions in the future, while the offset ratios required by SMAQMD's New Source Review regulations will ensure that a greater amount of ERCs will be used than pollutants emitted. Pursuant to SMAQMD regulations, SCA will submit the subject ERCs at a ratio of at least 2 to 1, fully offsetting the potential emissions increase from the proposed boiler project, as well as retiring ERCs to cover at least an additional 100 percent of the project's NO<sub>x</sub>, PM<sub>10</sub>, and VOC emissions. Therefore, the transfer of the subject ERCs will result in a net air quality benefit for the Sacramento Valley Air Basin.

### ***Public Health***

The NO<sub>x</sub>, PM<sub>10</sub>, or VOC emissions resulting from the operations of SCA's facility in SMAQMD will not have any detrimental effects on public health in the FRAQMD based on the air quality analysis prepared by SCA for its SMAQMD permit application. Additionally, because the quantity of ERCs used will exceed the project's maximum potential emissions, the ERC transfer may result in a future public health benefit due to a minimum 2 to 1 offset ratio in the SMAQMD as referenced above.

### ***Regional Economy***

SCA does not foresee any negative consequences to the regional economy that would result from the proposed ERC transfer. These ERCs would allow continued operation of a successful business entity in the Sacramento Valley Air Basin and an employer of many residents of this region. The additional jobs, significant capital investment, and ongoing manufacturing operations associated with the project will have a positive impact on the regional economy while fully complying with very stringent air quality regulatory requirements.

Based on the foregoing reasons, we request that FRAQMD's air pollution control officer evaluate and approve the transfer of the NO<sub>x</sub>, PM<sub>10</sub>, and VOC ERCs between FRAQMD and SMAQMD, and that the FRAQMD staff issue a certificate in the quantities listed in Table 6 of this letter for use on the SCA Boiler 1B project with the balance of credits issued to SMUD. In the alternative, if the recertification of Certificate #99001-T2 cannot be completed prior to the next FRAQMD Board meeting, we ask that this ERC transfer be placed on the Board agenda for approval of 21.4 tons of total ERCs to be transferred to the SMAQMD for use at the SCA Boiler 1B project.

Thank you for your time and consideration in this matter. Please contact me at (916) 732-6890 or René Toledo at (916) 732-7452 if you have any questions or comments or need additional information.

Sincerely,

A handwritten signature in black ink, appearing to read "Frankie", written in a cursive style.

Frankie McDermott  
SMUD Chief Generation & Grid Assets Officer  
Sacramento Cogeneration Authority Representative

Attachments

cc: Jeffrey Adkins, Sierra Research

ATTACHMENT 1

ERC Recertification Application  
Certificate #99001-T2



June 24, 2014  
EM14-016

Mr. Tim Mitro  
Feather River Air Quality Management District  
1007 Live Oak Boulevard, Suite B-3  
Yuba City, CA 95991

**SUBMITAL OF EMISSION REDUCTION CREDIT RECERTIFICATION  
APPLICATIONS FOR CERTIFICATES NO.'s 99001-T2 AND 99002-T2**

Dear Mr. Mitro:

Attached are two (2) completed Feather River Air Quality Management District (FRAQMD) recertification applications for open biomass (rice) burning cessation certificates 99001-T2 and 99002-T2.

Also enclosed, are the original ERC Certificates 99001-T2 and 99002-T2 issued to the Sacramento Municipal Utility District on August 16, 2001, and SMUD Check No. 00000767560 (in the amount of \$120.00) for the initial application filing fee.

Please feel free to contact me at (916) 732-7452 with any questions you may have on this matter.

Sincerely,

A handwritten signature in blue ink that reads "Rene Toledo".

Rene Toledo  
Environmental Specialist

Enclosures: Original ERC Certificates 99001-T2 and 99002-T2; two (2) ERC Rectification Applications; and SMUD Check No. 00000767560



Feather River Air Quality Management District  
Application for Emission Reduction Credits  
Rice ERC – Recertification Application



1007 Live Oak Blvd, Suite B-3  
Yuba City, CA 95991  
(530) 634-7659  
FAX (530) 634-7660  
www.fraqmd.org

Christopher D. Brown AICP  
Air Pollution Control Officer

**Filing Fee \$60.00 (non-refundable and to be submitted with this application)**

**\*Additional fees will be assessed pursuant to District Rule 7.7 (a copy of Rule 7.7 is available on request) at an hourly rate to cover costs of assessment, processing, and evaluation of the application. Inspections of the site and Hearing Board costs are additional. These fees do not include State costs incurred pursuant to Section 44380 of the California Health and Safety Code.**

**DIRECTIONS:** Please submit this form if you have a current ERC certificate that was issued for reducing rice burning and you are requesting to recertify the certificate for federal uses in accordance with District Rule 10.9. This form must be filled in for each ERC Certificate that is being recertified.

1. SUMMARY INFORMATION

Certificate No: 99001-T2 Issue Date: August 16, 2001

Certificate Owner Name(s): Sacramento Municipal Utility District

Total Percent of Acreage Originally Banked for subject parcels (1-100%): 38%  
(Please contact the District if you are unsure)

Total Percent of Acreage Requesting to be Banked for subject parcels (1-100%): 38%  
(must equal or exceed Percent Originally Banked)

Total Percent of Acreage Applying for Recertification (1-75%): 38%  
(cannot exceed Percent Requesting to be Banked)

Company Official Authorized for ERC transactions: Paul Lau; Assistant General Manager, Power Supply & Grid Operations

Please Print Name  
Paul Lau

Signature

(916) 732-6252

Phone Number

2. CONTACT INFORMATION (Please Print)

Name: René Toledo, Environmental Management Specialist III

Company: Sacramento Municipal Utility District

Address: P.O. Box 15832

City: Sacramento State: CA ZIP: 95852

Phone: (916) 732-7452 Fax: (916) 732-6890

3. PROOF OF OWNERSHIP

The District may request proof of ownership of Emission Reduction Credits. Proof of ownership is subject to the approval of the Air Pollution Control Officer.

- Yes  No Has proof of ownership been requested in order to process this application for recertification of Emission Reduction Credits? If yes, please attach proof of ownership.

4. ADMINISTRATIVE REQUIREMENTS

- Yes  No Is the current original ERC Certificate enclosed? [Note: The District will not process the application without this submittal.]

- Yes  No Are all delinquent fees due by the applicant paid or on an approved schedule of payment? [Note: The District will not process the application until all delinquent fees are paid.]

- Yes  No Is the Filing Fee included with the application?

**FRAQMD\*\*\*\*\***

Receipt Number \_\_\_\_\_ Check Number \_\_\_\_\_ Date \_\_\_\_\_ Received By \_\_\_\_\_

# FEATHER RIVER AIR QUALITY MANAGEMENT DISTRICT

Serving the Counties of Yuba and Sutter  
938 14<sup>th</sup> Street, Marysville, CA 95901  
530/634-7659 FAX 530/634-7660 Burn Information 530/741-6299

Steven A. Speckart  
Air Pollution Control Officer

## Emission Reduction Credit Certificate No. ERC 99001-T2

IS HEREBY GRANTED TO

**Sacramento Municipal Utility District  
6201 S Street  
Sacramento, CA 95817-1899**

FOR EMISSION REDUCTIONS FROM:

**Reduction of open burning of biofuels from the Sutter County fields identified in Attachment 1  
(as set forth in the records of the Sutter County Agriculture Commissioner's Office)**

The following emission reduction credits, in pounds per quarter (calendar quarters), are hereby granted pursuant to Feather River Air Quality Management District (FRAQMD) Rule 10.2, Emission Reduction Banking Credit:

(in pounds)	1 <sup>st</sup> Quarter	2 <sup>nd</sup> Quarter	3 <sup>rd</sup> Quarter	4 <sup>th</sup> Quarter
ROG	20,350	13,167	3,591	22,744
NO <sub>x</sub>	17,094	11,061	3,016	19,105
SO <sub>x</sub>	4,706	3,045	831	5,260
PM <sub>10</sub>	22,894	14,814	4,040	25,587
CO	0	0	0	0

### CONDITIONS:

1. The ERCs described in this certificate are subject to all provisions of FRAQMD Rule 10.2 (Emission Reduction Credit Banking) and to all amendments of that rule after the date this certificate is issued. As of the date this certificate is issued, Rule 10.2 provides, among other things, as follows:
  - (a) This certificate is not valid unless sealed with the official FRAQMD seal. (§ 10.2.D.6.)
  - (b) Before using this certificate in another air district, the registered owner must obtain written approval from both FRAQMD and the other air district. Approval may be by the governing boards of FRAQMD and the other district or by the air pollution control officers of FRAQMD and the other district if their boards have so authorized. (§ 10.2.1.E.2.a.3; see also Manual of Procedures, §§ 1.0 (k) & 7.0)
  - (c) The registered owner of this certificate may request that FRAQMD cancel or revise this certificate to allow burning on the fields identified in attachment 1 or on portions of those fields. After FRAQMD has cancelled or revised this certificate, the affected fields or portions of fields may be burned in accordance with FRAQMD Rule 2.7 (Agricultural Burning). (§ 10.2.1.E.1)

2. Any sale, lease, transfer, or use of this certificate must be approved in writing by FRAQMD's Air Pollution Control Officer.
3. In accordance with paragraph C of Rule 10.2.1, this certificate was submitted to the California Air Resources board and the U.S. Environmental Protection Agency for review. Comments received from those agencies after issuance of this certificate may require FRAQMD to modify the amount of ERCs or the conditions set forth in this certificate, or both.

NOTICE: IN ADDITION, THIS CERTIFICATE MAY BE REVISED TO ADJUST THE QUANTITY OF BANKED ERCs IF FRAQMD DETERMINES IN ITS SOLE DISCRETION THAT ADJUSTMENT IS NEEDED TO MAINTAIN CONTINUED COMPLIANCE WITH APPLICABLE FRAQMD, STATE, OR FEDERAL RULES OR PLANNING REQUIREMENTS AFTER THIS CERTIFICATE IS ISSUED. (Health and Safety Code §40709.5(c)).

  
\_\_\_\_\_  
Steven A. Speckert  
Air Pollution Control Officer

8/16/01  
\_\_\_\_\_  
Date

**Attachment 1 (ERC 99001-T2)**

<b>SITE ID</b>	<b>AP #</b>
<b>BENNETT</b>	
4 16	35-220-014
<b>BOLEN</b>	
68/4-3	35-010-005, 006, 009, 010
FL. 4 (4-2, 74)	35-010-007, 013, 014, 015
FL. 5 (4-1, 4)	35-140-005, 011, 012
4-4 (3-A)	35-010-002, 011, 012
FL. 7	35-020-008, 012, 013
	35-010-004
FL. 8	35-020-013
FL. 9	35-020-013
<b>CSY/HIGHWAY 99</b>	
PS3W	35-310-011
PS3E	35-310-011
PS4	35-310-008, 35-320-008
S5	35-310-008
PS1	35-310-012
PS2	35-310-012
<b>MAGOON</b>	
3-15 (FL. 1)	29-220-010
3-16 (FL. 2)	29-220-010
3-17 (FL. 3)	29-220-011
3-14 (FL. 4)	29-200-037
<b>POKER BEND</b>	
FL. 1	29-040-030
FL. 2	29-040-030
FL. 3	29-040-003, 030
FL. 4	29-010-016
FL. 5	29-040-003
FL. 6	29-010-010
<b>POWERLINE RD</b>	
4	35-140-035, 003, 004, 013, 014, 019, 020
<b>RIEGO</b>	
55 (# 1)	35-310-004
56 (# 2)	35-280-001
57 (# 3)	35-280-001
58 (# 4)	35-280-001
59 (# 5)	35-280-001
60 (# 6)	35-280-001
61 (# 7)	35-280-001, 35-310-004
62 (# 8)	35-280-016
63 (# 9)	35-280-006, 009, 016
64 (# 10)	35-280-006, 007
65 (# 11)	35-280-008, 009, 010
<b>RIO NICOLAUS</b>	
1	28-190-052
2	28-190-052
FL. 102	28-190-052
4	28-190-052
5	28-190-052
FL. 98	28-190-052
FL. 97	28-190-052

<b>SITE ID</b>	<b>AP #</b>
VAN DYKE 7	28-190-052
VAN DYKE 8	33-080-038
<b>SANKEY RD</b>	
# 1	35-130-005
# 2	35-130-005
69	35-140-032
FIELD 6	35-140-022
# 4	35-140-022, 032
<b>SUTTER BAY</b>	
FL. 1-4676	35-120-012
C-2	35-120-012
C-1	35-120-012
FL. 4	35-120-007
FL. 5	35-120-007
FL. 17	35-120-003
FL. 2	35-120-003
C-6	35-120-012, 35-150-011
29	35-120-012, 35-150-011
C-4	35-120-012, 35-150-011
FL.1-6349	35-150-003
FL. 1-6187	35-130-014
L-2	35-130-014
FL. 3	35-130-014
<b>WYATT</b>	
LEAL FL. 1/FSA FL. 1	25-270-016
<b>YAW</b>	
FL. 1 # 442	35-220-005
FL. 1 # 1131	35-220-007
FL. 2 # 1131	35-220-007
FL.2 # 767	35-170-081
FL. 1 # 767	35-170-081
FL. 1A # 7611	35-170-081
FL. 1B # 7611	35-170-081
FL. 1 # 922	35-260-001

Feather River Air Quality Management District  
Application for Emission Reduction Credits  
Rice ERC – Recertification Application



1007 Live Oak Blvd, Suite B-3  
Yuba City, CA 95991  
(530) 634-7659  
FAX (530) 634-7660  
www.fraqmd.org

Christopher D. Brown AICP  
Air Pollution Control Officer

**Filing Fee \$60.00 (non-refundable and to be submitted with this application)**

\*Additional fees will be assessed pursuant to District Rule 7.7 (a copy of Rule 7.7 is available on request) at an hourly rate to cover costs of assessment, processing, and evaluation of the application. Inspections of the site and Hearing Board costs are additional. These fees do not include State costs incurred pursuant to Section 44380 of the California Health and Safety Code.

**DIRECTIONS:** Please submit this form if you have a current ERC certificate that was issued for reducing rice burning and you are requesting to recertify the certificate for federal uses in accordance with District Rule 10.9. This form must be filled in for each ERC Certificate that is being recertified.

1. SUMMARY INFORMATION

Certificate No: 99002-T2 Issue Date: August 16, 2001

Certificate Owner Name(s): Sacramento Municipal Utility District

Total Percent of Acreage Originally Banked for subject parcels (1-100%): 38%  
(Please contact the District if you are unsure)

Total Percent of Acreage Requesting to be Banked for subject parcels (1-100%): 38%  
(must equal or exceed Percent Originally Banked)

Total Percent of Acreage Applying for Recertification (1-75%): 38%  
(cannot exceed Percent Requesting to be Banked)

Company Official  
Authorized for ERC  
transactions:

Paul Lau; Assistant General Manager, Power Supply & Grid Operations

Please Print Name

Signature

(916) 732-6252

Phone Number

2. CONTACT INFORMATION (Please Print)

Name: René Toledo, Environmental Management Specialist III

Company: Sacramento Municipal Utility District

Address: P.O. Box 15832

City: Sacramento State: CA ZIP: 95852

Phone: (916) 732-7452 Fax: (916) 732-6890

3. PROOF OF OWNERSHIP

The District may request proof of ownership of Emission Reduction Credits. Proof of ownership is subject to the approval of the Air Pollution Control Officer.

- Yes  No Has proof of ownership been requested in order to process this application for recertification of Emission Reduction Credits? If yes, please attach proof of ownership.

4. ADMINISTRATIVE REQUIREMENTS

- Yes  No Is the current original ERC Certificate enclosed? [Note: The District will not process the application without this submittal.]

- Yes  No Are all delinquent fees due by the applicant paid or on an approved schedule of payment? [Note: The District will not process the application until all delinquent fees are paid.]

- Yes  No Is the Filing Fee included with the application?

**FRAQMD\*\*\*\*\***

Receipt Number \_\_\_\_\_ Check Number \_\_\_\_\_ Date \_\_\_\_\_ Received By \_\_\_\_\_

# FEATHER RIVER AIR QUALITY MANAGEMENT DISTRICT

Serving the Counties of Yuba and Sutter  
938 14<sup>th</sup> Street, Marysville, CA 95901  
530/634-7659 FAX 530/634-7660 Burn Information 530/741-6299

Steven A. Speckert  
Air Pollution Control Officer

## Emission Reduction Credit Certificate No. ERC 99002-T2

IS HEREBY GRANTED TO

**Sacramento Municipal Utility District  
6201 S Street  
Sacramento, CA 95817-1899**

FOR EMISSION REDUCTIONS FROM:

**Reduction of open burning of biofuels created at RUBY 16, AP # 35-320-003 (as set forth in the records of the Sutter County Agriculture Commissioner's Office)**

The following emission reduction credits, in pounds per quarter (calendar quarters), are hereby granted pursuant to Feather River Air Quality Management District (FRAQMD) Rule 10.2, Emission Reduction Banking Credit:

(in pounds)	1 <sup>st</sup> Quarter	2 <sup>nd</sup> Quarter	3 <sup>rd</sup> Quarter	4 <sup>th</sup> Quarter
ROG	256	166	45	286
NOx	215	139	38	241
SOx	59	38	10	66
PM <sub>10</sub>	288	187	51	322
CO	0	0	0	0

### CONDITIONS:

1. The ERCs described in this certificate are subject to all provisions of FRAQMD Rule 10.2 (Emission Reduction Credit Banking) and to all amendments of that rule after the date this certificate is issued. As of the date this certificate is issued, Rule 10.2 provides, among other things, as follows:
  - (a) This certificate is not valid unless sealed with the official FRAQMD seal. (¶ 10.2.D.6.)
  - (b) Before using this certificate in another air district, the registered owner must obtain written approval from both FRAQMD and the other air district. Approval may be by the governing boards of FRAQMD and the other district or by the air pollution control officers of FRAQMD and the other district if their boards have so authorized. (¶ 10.2.1.E.2.a.3; see also Manual of Procedures, §§ 1.0 (k) & 7.0)
  - (c) The registered owner of this certificate may request that FRAQMD cancel or revise this certificate to allow burning on the fields identified in attachment 1 or on portions of those fields. After FRAQMD has cancelled or revised this certificate, the affected fields or portions of fields may be burned in accordance with FRAQMD Rule 2.7 (Agricultural Burning). (¶ 10.2.1.E.1)



2. Any sale, lease, transfer, or use of this certificate must be approved in writing by FRAQMD's Air Pollution Control Officer.
3. In accordance with paragraph C of Rule 10.2.1, this certificate was submitted to the California Air Resources board and the U.S. Environmental Protection Agency for review. Comments received from those agencies after issuance of this certificate may require FRAQMD to modify the amount of ERCs or the conditions set forth in this certificate, or both.

NOTICE: IN ADDITION, THIS CERTIFICATE MAY BE REVISED TO ADJUST THE QUANTITY OF BANKED ERCs IF FRAQMD DETERMINES IN ITS SOLE DISCRETION THAT ADJUSTMENT IS NEEDED TO MAINTAIN CONTINUED COMPLIANCE WITH APPLICABLE FRAQMD, STATE, OR FEDERAL RULES OR PLANNING REQUIREMENTS AFTER THIS CERTIFICATE IS ISSUED. (Health and Safety Code §40709.5(c)).

  
\_\_\_\_\_  
Steven A. Speckert  
Air Pollution Control Officer

  
\_\_\_\_\_  
Date

Sacramento Municipal Utility District

6201 S Street, P.O. BOX 15830, Sacramento CA 95817-1899 Tel: (916) 452-3211

VENDOR NO.

306848

CHECK NO.

00000767560

VENDOR / CUSTOMER NAME

FEATHER RIVER AIR QUALI

INVOICE NO.	DATE	GROSS	DEDUCTIONS	DISCOUNT	NET
5/2014 RECERTFEE	05/19/2014	120.00	0.00	0.00	120.00
Recertification of 99001-T2 & 99002-T2					

Check Amount :

DETACH BEFORE DEPOSITING CHECK



Sacramento Municipal Utility District

6201 S Street P.O. BOX 15830 Sacramento CA 95817-1899

00000767560

70-2328/0719

Bank America Illinois  
Northbrook, Illinois

VOID 6 MONTHS AFTER ISSUE

VENDOR NO. 306848	DATE 06/06/2014
----------------------	--------------------

PAY EXACTLY

\*\*\*\*\*\$120.00\*

\*\*\* ONE HUNDRED TWENTY USD\*\*\*

SMUD Commercial Disbursement Account

PAY TO THE  
ORDER OF

FEATHER RIVER AIR QUALITY MANAGEMEN  
DISTRICT  
1007 LIVE OAK BOULEVARD, SUITE B-3  
YUBA CITY CA 95991

⑈0000 76 7560⑈ ⑆071923284⑆ 87650⑈02383⑈

ATTACHMENT 2  
Detailed Calculations

**Sum of 99001 and 2001**

		Total					
Acres Burned =		10,695.50	10,695.50				
HBF =		100%	10,695.50				
Available Acreage =		75%	8,021.63				
Quarterly Allocation		Q1	Q2	Q3	Q4	Total	
		34%	22%	6%	38%	100%	
Rule 9.10 Factors		VOC	NOx	SOx	PM10	CO	
lbs/acre		14.1	15.6	3.3	18.9	172.2	

Total ERCs Available	Q1	Q2	Q3	Q4	Total
VOC	38,456	24,883	6,786	42,980	113,105
NOx	42,547	27,530	7,508	47,552	125,137
SOx	9,000	5,824	1,588	10,059	26,471
PM10	51,547	33,354	9,097	57,611	151,609
CO	469,650	303,891	82,879	524,903	1,381,324

FRAQMD Bank 5%	Q1	Q2	Q3	Q4	Total
VOC	1,923	1,244	339	2,149	5,655
NOx	2,127	1,377	375	2,378	6,257
SOx	450	291	79	503	1,324
PM10	2,577	1,668	455	2,881	7,580
CO	23,483	15,195	4,144	26,245	69,066

Rule 10.9 ERCs	Q1	Q2	Q3	Q4	Total
VOC	36,533	23,639	6,447	40,831	107,450
NOx	40,419	26,154	7,133	45,175	118,880
SOx	8,550	5,533	1,509	9,556	25,148
PM10	48,970	31,686	8,642	54,731	144,028
CO	446,168	288,697	78,735	498,658	1,312,258

Sum of 99001 and 2001	Q1	Q2	Q3	Q4	Total
VOC	61,707	39,928	10,890	68,967	181,492
NOx	59,878	38,745	10,566	66,923	176,112
SOx	14,354	9,288	2,533	16,043	42,218
PM10	75,927	49,129	13,399	84,859	223,314
CO	695,711	450,166	122,772	777,559	2,046,208

**Sum Percent of Original Value**

	Q1	Q2	Q3	Q4
VOC	59.2%	59.2%	59.2%	59.2%
NOx	67.5%	67.5%	67.5%	67.5%
SOx	59.6%	59.6%	59.6%	59.6%
PM10	64.5%	64.5%	64.5%	64.5%
CO	64.1%	64.1%	64.1%	64.1%

**Revised Sum 99001 and 2001**

	Qtr #1	Qtr #2	Qtr #3	Qtr #4	Total
VOC	36,533	23,639	6,447	40,831	107,450
NOx	40,419	26,154	7,133	45,175	118,880
SOx	8,550	5,533	1,509	9,556	25,148
PM <sub>10</sub>	48,970	31,686	8,642	54,731	144,028
PM <sub>2.5</sub>	46,100	29,829	8,135	51,524	135,588
CO	446,168	288,697	78,735	498,658	1,312,258

**ERC Cert 99001**

	Q1	Q2	Q3	Q4	Total
VOC	31,506	20,386	5,560	35,213	92,665
NOx	26,465	17,125	4,670	29,579	77,839
SOx	7,286	4,714	1,286	8,143	21,429
PM10	35,445	22,935	6,255	39,615	104,250
CO	326,879	211,510	57,684	365,335	961,408

**99001 Percent of Original Value**

	Q1	Q2	Q3	Q4
VOC	59.2%	59.2%	59.2%	59.2%
NOx	67.5%	67.5%	67.5%	67.5%
SOx	59.6%	59.6%	59.6%	59.6%
PM10	64.5%	64.5%	64.5%	64.5%
CO	64.1%	64.1%	64.1%	64.1%

**Rule 10.9 Revised Certificate 99001 (lb/quarter)**

	Qtr #1	Qtr #2	Qtr #3	Qtr #4	Total
VOC	18,653	12,069	3,292	20,847	54,861
NOx	17,865	11,560	3,153	19,967	52,543
SOx	4,340	2,808	766	4,850	12,765
PM <sub>10</sub>	22,860	14,792	4,034	25,550	67,237
PM <sub>2.5</sub>	21,521	13,925	3,798	24,053	63,297
CO	209,631	135,644	36,994	234,294	616,562

**ERC Cert 2001-30**

	Q1	Q2	Q3	Q4	Total
VOC	30,201	19,542	5,330	33,754	88,827
NOx	33,413	21,620	5,896	37,344	98,273
SOx	7,068	4,574	1,247	7,900	20,789
PM10	40,482	26,194	7,144	45,244	119,064
CO	368,832	238,656	65,088	412,224	1,084,800

**2001 Percent of Original Value**

	Q1	Q2	Q3	Q4
VOC	59.2%	59.2%	59.2%	59.2%
NOx	67.5%	67.5%	67.5%	67.5%
SOx	59.6%	59.6%	59.6%	59.6%
PM10	64.5%	64.5%	64.5%	64.5%
CO	64.1%	64.1%	64.1%	64.1%

**Rule 10.9 Revised Certificate 2001-30 (lb/quarter)**

	Qtr #1	Qtr #2	Qtr #3	Qtr #4	Total
VOC	17,880	11,570	3,155	19,984	52,589
NOx	22,555	14,594	3,980	25,208	66,337
SOx	4,210	2,725	743	4,706	12,383
PM <sub>10</sub>	26,109	16,894	4,608	29,181	76,791
PM <sub>2.5</sub>	24,579	15,904	4,338	27,471	72,291
CO	236,536	153,053	41,742	264,364	695,695

ATTACHMENT 2

FRAQMD Resolution 2015-03  
Approving Use of ERC Certificate #99001-T2  
in SMAQMD

FEATHER RIVER AIR QUALITY MANAGEMENT DISTRICT

IN RE:

RESOLUTION NO. 2015-03

RESOLUTION TO APPROVE  
THE TRANSFER OF EMISSION REDUCTION CREDITS FROM FEATHER RIVER AQMD  
TO SACRAMENTO METROPOLITAN AQMD TO OFFSET EMISSION INCREASES  
FROM SACRAMENTO COGENERATION AUTHORITY AND AUTHORIZE THE APCO  
TO ENTER INTO AN MOU

---

**WHEREAS**, California Health & Safety Code Section 40709.6(a) allows increases in emissions of air pollutants at a stationary source located in one district to be offset by emission reductions credited to a stationary source located in another district if both stationary sources are located in the same air basin; and

**WHEREAS**, California Health & Safety Code Section 40709.6(d) requires any offset credited pursuant to Section 40709.6(a) to be approved by a resolution adopted by the governing boards of both districts after taking into consideration the impact of the offset on air quality, public health, and the regional economy; and

**WHEREAS**, Sacramento Metropolitan Air Quality Management District Rule 202 section 302.6 allows offsets that are obtained from a source located in another district to be used if the provisions of Section 40709.6 are met; and

**WHEREAS**, Section 40709.6(d) allows the governing board of any district to delegate the authority to approve offsets pursuant to Section 40709.6(a) to its Air Pollution Control Officer ("APCO") of the District; and

**WHEREAS**, the Governing Board of the Sacramento Metropolitan Air Quality Management District ("SMAQMD") has delegated its approval authority under Section 40709.6(d) to its APCO; and

**WHEREAS**, the Governing Board of the Feather River Air Quality Management District ("FRAQMD") has not delegated its approval authority under Section 40709.6(d) to its APCO for transfers exceeding 10 tons per year; and

**WHEREAS**, Sacramento Cogeneration Authority (SCA) has filed an Application for Authority to Construct with the SMAQMD to increase emissions at their manufacturing facility ("Project"); and

**WHEREAS**, one of the requirements with which the Project must comply is the provision of offsets pursuant to SMAQMD Rule 202; and

**WHEREAS**, the Project intends to acquire offsets generated in the Sacramento Valley Air Basin and banked by the FRAQMD to use as Project ERCs; and

WHEREAS, SCA has identified one ERC certificate owned by the Leal Family Trust, holders of ERCs certified by the FRAQMD, that grants the Project an option to use up to 16.97 tons per year of Nitrogen Oxide (NOx), 21.71 tons per year of Particulate Matter (PM), and 17.72 tons of Reactive Organic Gas (ROG) ERCs from FRAQMD ERC certificate 99001-T2; and

WHEREAS, the Project will meet all applicable federal, state, and local air quality statutes, rules, and regulations; and

WHEREAS, the Project will not cause or contribute to an exceedance of an applicable air quality standard; and

WHEREAS, the Project will cause a net decrease in air emissions in the Sacramento Valley Air Basin; and

WHEREAS, the transfer of ERCs and their use as offsets by the Project will have a positive impact on the regional economy by allowing the development of the Project, which represents an investment in the regional economy;

NOW, THEREFORE, BE IT RESOLVED that the Governing Board of the FRAQMD, after consideration of the air quality, public health, and regional economy impacts of the proposed offsets, hereby directs the Air Pollution Control Officer to enter into an MOU with the SMAQMD so that the use of emission reduction credits from the FRAQMD can be used to offset emission increases from Sacramento Cogeneration Authority's facility.

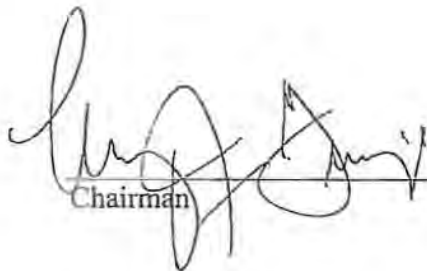
PASSED AND ADOPTED by the Feather River Air Quality Management District at a meeting on April 6, 2015, by the following vote:

AYES: Directors Griego, Nicoletti, Abe, Minger, Whiteaker, Balard Whitmore, and Dukes

NOES: None

ABSENT: Director Pendergraph

ABSTAIN: None

  
Chairman

ATTEST:

  
Clerk of the District Board

APPROVED FOR LEGAL FORM:

  
District Counsel



ATTACHMENT 3

FRAQMD Background Data and Calculations for  
ERC Certificate #99001

**FEATHER RIVER AQMD  
SVAB BIOMASS ERC CALCULATION WORKSHEET**

County: Sutter Run by: JC/DAV

Applicant:	ODYSSEUS FARMS, PTR./ LEAL FAMILY TRUST	5/10/1999
Farm:	ODYSSEUS FARMS, PTR./ LEAL FAMILY TRUST	(530) 751-1206
Address:	P.O. BOX H, YUBA CITY 95992	Contact: ROBERT LEAL

**ERC CALCULATION INFORMATION**

EQUATION: (AB-DA) \* HBF \* FL \* EF \* QBF

Parcel ID	SEE SITE ID'S LISTED BELOW
Parcel locations	CORNELIUS/HWY 70, SUBACO/CRANMORE, SEYMOUR/ARMOUR RECLAMATION/TUDOR, EVERGLADE KNIGHTS, LAUREL/HWY99 SAWTELLE/LAUREL, MARCUSE/SAWTELLE, POWERLINE/SANKEY RIEGO/HWY 99, & SANKEY/HWY99
Biomass residue type	Rice
Acres burned (acres)	4064.29 = AB (at 38% eligible)
Fuel loading (dry T/Ac)	3 = FL
Discount acreage (acres)	0 = DA
Historical burn (0-1)	1 = HBF

Parcel ID  
Parcel locations  
Biomass residue type  
Acres burned (acres)  
Fuel loading (dry T/Ac)  
Discount acreage (acres)  
Historical burn (0-1)  
Baseline years (1988-92)  
Quarter number (1-4)  
Calendar quarters  
Baseline Yr-Qtr Burned

Quarterly burn fraction = QBF  
(Jan-Feb-Mar, Apr-May-Jun, Jul-Aug-Sep, Oct-Nov-Dec)

Year	Qtr #1	Qtr #2	Qtr #3	Qtr #4	TOTAL
1988	4				
1989	4				
1990	1, 2, 3, 4				
1991	1, 2, 4				
1992	1, 2, 4	0.34	0.22	0.06	0.38

Source of emission factors:

**MOP**

Emission factor for biomass type = EF	Lbs Emissions/Yr	Tons Emissions/Yr
Factor-lbs/dry ton - ROG	8	97,543
Factor-lbs/dry ton - NOX as NO2	6.72	81,936
Factor-lbs/dry ton - SOX as SO2	1.85	22,557
Factor-lbs/dry ton - PM10	9	109,736
Factor-lbs/dry ton - CO	83	1,012,008

Calculation based on defaults:	ERC credits by quarter by pollutant				
	Total lbs /Yr	Qtr #1	Qtr #2	Qtr #3	Qtr #4
Emissions/Qtr:					
Pounds - ROG	97,543	33,165	21,459	5,853	37,066
Pounds - NOX as NO2	81,936	27,858	18,026	4,916	31,136
Pounds - SOX as SO2	22,557	7,669	4,962	1,353	8,572
Pounds - PM10	109,736	37,310	24,142	6,584	41,700
Pounds - CO	1,012,008	344,083	222,642	60,720	384,563

Calculation based on defaults:	ERC credits by quarter by pollutant minus 5% for FRAQMD				
	Total lbs /Yr	Qtr #1	Qtr #2	Qtr #3	Qtr #4
Emissions/Qtr:					
Pounds - ROG	92,666	31,506	20,386	5,560	35,213
Pounds - NOX as NO2	77,839	26,465	17,125	4,670	29,579
Pounds - SOX as SO2	21,429	7,286	4,714	1,286	8,143
Pounds - PM10	104,249	35,445	22,935	6,255	39,615
Pounds - CO	961,408	326,879	211,510	57,684	365,335

Rule 10.2  
H.1

Calculation based on defaults:	FRAQMD ERC Credits by pollutant (pounds) 5%				
	Total/Yr	Qtr #1	Qtr #2	Qtr #3	Qtr #4
Emissions/Qtr:					
Pounds - ROG	4,877	1,658	1,073	293	1,853
Pounds - NOX as NO2	4,097	1,393	901	246	1,557
Pounds - SOX as SO2	1,128	383	248	68	429
Pounds - PM10	5,487	1,866	1,207	329	2,085
Pounds - CO	50,600	17,204	11,132	3,036	19,228

Rule 10.2  
H.1

SITE ID	AP #	Acres	Eligible at 38 percent	Phasedown Acres
<b>BENNETT</b>				
4 16	35-220-014	139.9	53.16	86.74
<b>BOLEN</b>				
68/4-3	35-010-005, 006, 009, 010	155	58.90	96.10
FL. 4 (4-2, 74)	35-010-007, 013, 014, 015	145.8	55.40	90.40
FL. 5 (4-1, 4)	35-140-005, 011, 012	103.3	39.25	64.05
4-4 (3-A)	35-010-002, 011, 012	114.1	43.36	70.74
FL. 7	35-020-008, 012, 013, 35-010-004	55.8	21.20	34.60
FL. 8	35-020-013	45.9	17.44	28.46
FL. 9	35-020-013	56.3	21.39	34.91
<b>CSY/HIGHWAY 99</b>				
PS3W	35-310-011	58	22.04	35.96
PS3E	35-310-011	46	17.48	28.52
PS4	35-310-008, 35-320-008	93	35.34	57.66
S5	35-310-008	123	46.74	76.26
PS1	35-310-012	76	28.88	47.12
PS2	35-310-012	95	36.10	58.90
<b>MAGOON</b>				
3-15 (FL. 1)	29-220-010	113.2	43.02	70.18
3-16 (FL. 2)	29-220-010	146	55.48	90.52
3-17 (FL. 3)	29-220-011	152.2	57.84	94.36
3-14 (FL. 4)	29-200-037	101	38.38	62.62
<b>MCHENRY</b>				
N. MCHENRY	25-130-061	150	57.00	93.00
S. MCHENRY	25-130-061	150	57.00	93.00
<b>POKER BEND</b>				
FL. 1	29-040-030	98	37.24	60.76
FL. 2	29-040-030	71.5	27.17	44.33
FL. 3	29-040-003, 030	41.3	15.69	25.61
FL. 4	29-010-016	23	8.74	14.26
FL. 5	29-040-003	76.4	29.03	47.37
FL. 6	29-010-010	118	44.84	73.16
<b>POWERLINE RD.</b>				
4	35-140-035, 003, 004, 013, 014, 019, 020	205	77.90	127.10
<b>PRIDE</b>				
PRIDE	25-130-060	145	55.10	89.90
<b>RIEGO</b>				
55 (# 1)	35-310-004	107	40.66	66.34
56 (# 2)	35-280-001	55	20.90	34.10
57 (# 3)	35-280-001	38	14.44	23.56
58 (# 4)	35-280-001	100	38.00	62.00
59 (# 5)	35-280-001	127	48.26	78.74
60 (# 6)	35-280-001	124	47.12	76.88
61 (# 7)	35-280-001, 35-310-004	132	50.16	81.84
62 (# 8)	35-280-016	98	37.24	60.76
63 (# 9)	35-280-006, 009, 016	105	39.90	65.10
64 (# 10)	35-280-006, 007	74	28.12	45.88
65 (# 11)	35-280-008, 009, 010	82	31.16	50.84
<b>RIO NICOLAUS</b>				
1	28-190-052	21	7.98	13.02
2	28-190-052	40	15.20	24.80
FL. 102	28-190-052	11.8	4.48	7.32
4	28-190-052	34	12.92	21.08
5	28-190-052	21	7.98	13.02
FL. 98	28-190-052	21	7.98	13.02
FL. 97	28-190-052	20.1	7.64	12.46
VAN DYKE 7	28-190-052	119	45.22	73.78
VAN DYKE 8	33-080-038	109	41.42	67.58

Leal ERC (Final)

<b>SANKEY RD.</b>				
# 1	35-130-005	154.2	58.60	95.60
# 2	35-130-005	255.5	97.09	158.41
69	35-140-032	80	30.40	49.60
FIELD 6	35-140-022	127	48.26	78.74
# 4	35-140-022, 032	113.2	43.02	70.18
<b>SUTTER BAY</b>				
FL. 1-4676	35-120-012	119.8	45.52	74.28
C-2	35-120-012	124	47.12	76.88
C-1	35-120-012	124	47.12	76.88
FL. 4	35-120-007	114.7	43.59	71.11
FL. 5	35-120-007	110.8	42.10	68.70
FL. 17	35-120-003	46.5	17.67	28.83
FL. 2	35-120-003	77.9	29.60	48.30
C-6	35-120-012, 35-150-011	118	44.84	73.16
29	35-120-012, 35-150-011	124	47.12	76.88
C-4	35-120-012, 35-150-011	125	47.50	77.50
FL.1-6349	35-150-003	198.6	75.47	123.13
FL. 1-6187	35-130-014	120.1	45.64	74.46
L-2	35-130-014	115	43.70	71.30
FL. 3	35-130-014	118	44.84	73.16
<b>WYATT</b>				
DINGVILLE # 8	25-210-026, 037	147	55.86	91.14
DINGVILLE # 6	25-210-026, 037	162	61.56	100.44
LEAL FL. 1/FSA FL. 1	25-270-016	148.6	56.47	92.13
LEAL FL. 2/FSA FL. 7	25-210-026	145.2	55.18	90.02
LEAL FL. 3/FSA FL. 5	25-210-026, 25-260-061	151.9	57.72	94.18
NEWSTROM 60	25-210-036	60	22.80	37.20
NEWSTROM 141	25-210-032	141	53.58	87.42
NEWSTROM 180	25-210-036	183	69.54	113.46
LEAL FL. 9/FSA FL.17	25-190-048, 049	106.6	40.51	66.09
<b>YAW</b>				
FL. 1 # 442	35-220-005	141.1	53.62	87.48
FL. 1 # 1131	35-220-007	114.2	43.40	70.80
FL. 2 # 1131	35-220-007	36.3	13.79	22.51
FL.2 # 767	35-170-081	18	6.84	11.16
FL. 1 # 767	35-170-081	60.2	22.88	37.32
FL. 1A # 7611	35-170-081	30	11.40	18.60
FL. 1B # 7611	35-170-081	22.5	8.55	13.95
FL. 1 # 922	35-260-001	79.4	30.17	49.23
<b>YOSUBA</b>				
7394 FL. 1	21-300-003	44	16.72	27.28
22	21-300-003	165	62.70	102.30
7394 FL. 3	21-300-003	79.2	30.10	49.10
39	21-300-003	83	31.54	51.46
25	24-080-008	130	49.40	80.60
7394 FL. 5	24-080-002	54	20.52	33.48
7394 FL. 7	24-080-008	167	63.46	103.54
27	24-110-008	65	24.70	40.30
7394 FL. 10	24-110-008	171	64.98	106.02
29	24-120-004	34	12.92	21.08
30	24-120-004	27	10.26	16.74
5271 FL. 1	24-100-007	144	54.72	89.28
5271 FL. 3	24-110-001	157.4	59.81	97.59
5271 FL. 2	24-110-001	162.5	61.75	100.75
7394 FL. 13	24-140-006	66	25.08	40.92
7394 FL. 14	24-140-006	33	12.54	20.46
7394 FL. 15	24-140-006	98.5	37.43	61.07
7394 FL. 16	24-140-006	93	35.34	57.66
5640 FL. 1	24-130-017	345	131.10	213.90
7524 FL. 1	21-140-019	127	48.26	78.74

Summation 10695.5 4064.29 6,631.21

Transfer of Certificates

Registered Owner: Leal Family Trust  
ERC: 99001

Issue Date: 12/15/2000 Status: Cancelled

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Annual
	lbs	lbs	lbs	lbs	tons
ROG	31,506	20,386	5,560	35,213	46.33
NOx	26,465	17,125	4,670	29,579	38.92
SOx	7,286	4,714	1,286	8,143	10.71
PM10	35,445	22,935	6,255	39,615	52.13
CO	326,879	211,510	57,684	365,335	480.70

Registered Owner: Bethel World Foundation  
ERC: 99001-R1

Issue Date: 8/16/2001 Status: Cancelled

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Annual
	lbs	lbs	lbs	lbs	tons
ROG					
NOx					
SOx					
PM10					
CO	211,130	136,614	37,258	235,969	310.49

Registered Owner: Bethel World Foundation  
ERC: 99001-R2

Issue Date: 8/16/2001 Status: Cancelled

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Annual
	lbs	lbs	lbs	lbs	tons
ROG	11,156	7,219	1,969	12,469	16.41
NOx	9,371	6,064	1,654	10,474	13.78
SOx	2,580	1,669	455	2,883	3.79
PM10	12,551	8,121	2,215	14,028	18.46
CO	115,749	74,896	20,426	129,366	170.22

Registered Owner: Sacramento Municipal Utility District  
ERC: 99001-T2

Issue Date: 8/16/2001 Status: Active

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Annual
	lbs	lbs	lbs	lbs	tons
ROG	20,350	13,167	3,591	22,744	29.93
NOx	17,094	11,061	3,016	19,105	25.14
SOx	4,706	3,045	831	5,260	6.92
PM10	22,894	14,314	4,040	25,587	33.67
CO					-

Registered Owner: World Vision, Inc.  
ERC: 99001-S1

Issue Date: 1/25/2013 Status: Active

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Annual
	lbs	lbs	lbs	lbs	tons
ROG					
NOx					
SOx					
PM10					
CO	211,130	136,614	37,258	235,969	310.49

Registered Owner: World Vision, Inc.  
ERC: 99001-S2

Issue Date: 1/25/2013 Status: Active

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Annual
	lbs	lbs	lbs	lbs	tons
ROG	11,156	7,219	1,969	12,469	16.41
NOx	9,371	6,064	1,654	10,474	13.78
SOx	2,580	1,669	455	2,883	3.79
PM10	12,551	8,121	2,215	14,028	18.46
CO	115,749	74,896	20,426	129,366	170.22

**FEATHER RIVER AQMD  
SVAB BIOMASS ERC CALCULATION WORKSHEET**

County:  Run by:

Applicant:	LEAL FAMILY TRUST	Date:	8/14/2001
Farm:	ODYSSEUS FARMS	Contact:	ROBERT LEAL
Address:	P.O. BOX H YUBA CITY	Phone:	(530) 751-1206

**ERC CALCULATION INFORMATION**

EQUATION: (AB-DA)\*(Phasedown %)\* HBF \* FL \* EF \* QBF

App. 01-30 ERC #: 2001-30

SEE ATTACHMENT 1

SEE INDIVIDUAL FIELD SURVEY FORMS

Rice

10695.5	= AB
3	= FL
0	= DA
1	= HBF
62	= Phasedown Percentage

Parcel ID  
Parcel locations  
Biomass residue type  
Acres burned (acres)  
Fuel loading (dry T/Ac)  
Discount acreage (acres)  
Historical burn (0-1)

Baseline years (1988-92)  
Quarter number (1-4)  
Calendar quarters  
Baseline Yr-Qtr Burned

Quarterly burn fraction = QBF  
(Jan-Feb-Mar, Apr-May-Jun, Jul-Aug-Sep, Oct-Nov-Dec)

	Qtr #1	Qtr #2	Qtr #3	Qtr #4	TOTAL
1988					
1989					
1990					
1991					
1992	0.34	0.22	0.06	0.38	1

Source of emission factors:

Emission factor for biomass type = EF	MOP	Lbs Emissions/Yr	Tons Emissions/Yr
Factor-lbs/dry ton - ROG	4.7	93,500	46.75
Factor-lbs/dry ton - NOX as NO2	5.2	103,447	51.72
Factor-lbs/dry ton - SOX as SO2	1.1	21,883	10.94
Factor-lbs/dry ton - PM10	6.3	125,330	62.66
Factor-lbs/dry ton - CO	57.4	1,141,894	570.95

Calculation based on defaults:	ERC credits by quarter by pollutant				
Emissions/Qtr:	Total lbs /Yr	Qtr #1	Qtr #2	Qtr #3	Qtr #4
Pounds - ROG	93,500	31,790	20,570	5,610	35,530
Pounds - NOX as NO2	103,447	35,172	22,758	6,207	39,310
Pounds - SOX as SO2	21,883	7,440	4,814	1,313	8,316
Pounds - PM10	125,330	42,612	27,573	7,520	47,625
Pounds - CO	1,141,894	388,244	251,217	68,514	433,920

Calculation based on defaults:	ERC credits by quarter by pollutant minus 5% for FRAQMD				
Emissions/Qtr:	Total lbs /Yr	Qtr #1	Qtr #2	Qtr #3	Qtr #4
Pounds - ROG	88,825	30,201	19,542	5,330	33,754
Pounds - NOX as NO2	98,275	33,413	21,620	5,896	37,344
Pounds - SOX as SO2	20,789	7,068	4,574	1,247	7,900
Pounds - PM10	119,063	40,482	26,194	7,144	45,244
Pounds - CO	1,084,800	368,832	238,656	65,088	412,224

Rule 10.2  
E.1

Calculation based on defaults:	FRAQMD ERC Credits by pollutant (pounds) 5%				
Emissions/Qtr:	Total/Yr	Qtr #1	Qtr #2	Qtr #3	Qtr #4
Pounds - ROG	4,675	1,590	1,029	281	1,777
Pounds - NOX as NO2	5,172	1,759	1,138	310	1,965
Pounds - SOX as SO2	1,094	372	241	66	416
Pounds - PM10	6,266	2,131	1,379	376	2,381
Pounds - CO	57,095	19,412	12,561	3,426	21,696

Rule 10.2  
E.1

SITE ID	AP #	Total Acres	Total Discount Acres
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SEE ATTACHMENT 1      SEE ATTACHMENT 1      10695.5      0

Transfer of Certificates

Registered Owner: Leal Family Trust

ERC: 2001-30

Issue Date: 10/2/2001

Status: Cancelled

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Annual
	lbs	lbs	lbs	lbs	tons
ROG	30,201	19,542	5,330	33,754	44.41
NOx	33,413	21,620	5,896	37,344	49.14
SOx	7,068	4,574	1,247	7,900	10.39
PM10	40,482	26,194	7,144	45,244	59.53
CO	368,832	238,656	65,088	412,224	542.40

Registered Owner: Leal Family Trust

ERC: 2001-30-R1

Issue Date: 9/27/2001

Status: Cancelled

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Annual
	lbs	lbs	lbs	lbs	tons
ROG	15,101	9,771	2,665	16,877	22.21
NOx	16,707	10,810	2,948	18,672	24.57
SOx	3,534	2,287	624	3,950	5.20
PM10	20,241	13,097	3,572	22,622	29.77
CO	184,416	119,328	32,544	206,122	271.21

Registered Owner: Bethel World Foundation

ERC: 2001-30-T1

Issue Date: 9/27/2001

Status: Cancelled

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Annual
	lbs	lbs	lbs	lbs	tons
ROG	15,101	9,771	2,665	16,877	22.21
NOx	16,707	10,810	2,948	18,672	24.57
SOx	3,534	2,287	624	3,950	5.20
PM10	20,241	13,097	3,572	22,622	29.77
CO	184,416	119,328	32,544	206,122	271.21

Registered Owner: Bethel World Foundation

ERC: 2001-30-R2

Issue Date: 10/17/2001

Status: Cancelled

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Annual
	lbs	lbs	lbs	lbs	tons
ROG	15,101	9,771	2,665	16,877	22.21
NOx	16,707	10,810	2,948	18,672	24.57
SOx	3,534	2,287	624	3,950	5.20
PM10	20,241	13,097	3,572	22,622	29.77
CO	184,416	119,328	32,544	206,122	271.21

Registered Owner: World Vision, Inc.

ERC: 2001-30-S2

Issue Date: 1/25/2013

Status: Active

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Annual
	lbs	lbs	lbs	lbs	tons
ROG	15,101	9,771	2,665	16,877	22.21
NOx	16,707	10,810	2,948	18,672	24.57
SOx	3,534	2,287	624	3,950	5.20
PM10	20,241	13,097	3,572	22,622	29.77
CO	184,416	119,328	32,544	206,122	271.21

Registered Owner: World Vision, Inc.

ERC: 2001-30-S1

Issue Date: 1/25/2013

Status: Active

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Annual
	lbs	lbs	lbs	lbs	tons
ROG	15,101	9,771	2,665	16,877	22.21
NOx	16,707	10,810	2,948	18,672	24.57
SOx	3,534	2,287	624	3,950	5.20
PM10	20,241	13,097	3,572	22,622	29.77
CO	184,416	119,328	32,544	206,122	271.21