Jagmeet Kahlon

From: Jagmeet Kahlon
Sent: Wednesday, February 20, 2008 11:55 AM
To: Richard Young
Subject: Final Notice Letters for ERC Banking Project, N1061341

Richard,

Please process the attached final notice letters for the ERC banking project. The invoice number is 65957.

Thanks,

Jagmeet S. Kahlon
Air Quality Engineer
San Joaquin Valley Air Pollution Control District
4800 Enterprise Way | Modesto, CA 95356
(209) 557-6452 | FAX (209) 557-6475
jagmeet.kahlon@valleyair.org


Final Notice
:tters, 1061341.ord


Stockton
(final), 1061

PROJECT ROUTING FORM

FACILITY NAME: Diamond Walnut Growers, Inc

FACILITY ID: N0285 PROJECT NUMBER: N1061341

PERMIT #'s: N/A ERC-N-645

DATE RECEIVED: May 9, 2006

PRELIMINARY REVIEW	ENGR	DATE	SUPR	DATE
A. Application Deemed Incomplete				
Second Information Letter				
B. Application Deemed Complete	JK	5/31/06	[illegible]	6/2/06
C. Application Pending Denial				
D. Application Denied				

ENGINEERING EVALUATION	INITIAL	DATE
E. Engineering Evaluation Complete	JK	6/14/06
F. Supervising Engineer Approval		
G. Compliance Division Approval [X] Not Required		
H. Applicant's Review of Draft Authority to Construct Completed [ ] 3-day Review [ ] 10-day Review [ ] No Review Requested		
I. Permit Services Regional Manager Approval	JS JS	4/25/07 Pulled Johnny 2/19/08 ERC issuance

DIRECTOR REVIEW: [ ] Not Required [X] Required

DIRECTOR REVIEW	INITIAL	DATE
J. Preliminary Approval to Director		
K. Final Approval to Director		

NSPS/NESHAP TRIGGERED: [ ] Yes [X] No

If "Yes" then do the following:

1. Complete form (on AIRnet at Per » General » Internal Forms : Miscellaneous: NSPS/NESHAP Report) and attach copy to engineering evaluation.
2. Send or email form to Compliance (Tanya Good) after management approval of project.

SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT MEMO

DATE: July 3, 2007

TO: Jim Swaney

FROM: Jagmeet Kahlon

SUBJECT: **Response to the comments from Diamond Foods regarding the banking action due to shutdown of cogen boiler (Project N-1061341)**

The following comments were received after the preliminary notice of Diamond Foods ERC banking project N-1061341:

Comment #1:

Diamond proposed 2001-2002 as the two-year baseline for emission calculations, with an average fuel consumption of 29,971 tpy of walnut shells. The District used 2003-2004 as the two-year baseline in its Actual Emission Reduction calculation, with an average fuel consumption of 27,408 tpy of walnut shells. These two baselines are equidistant to the four-year (2001-2004) average of 28,689 tpy of walnut shells; the 2001-2002 baseline is higher by 1,282 tpy while the 2003-2004 baseline is lower by 1,282 tpy.

Both baselines are equally representative of "actual emissions." Use of the 2001-2002 baseline would serve to add more ERCs to the SJVAPCD market where supply of ERCs, which are needed to permit future projects and allow industrial growth within the District, is already constrained. Furthermore, the ERC market is even more constrained in the availability of NOx ERCs that qualify as "surplus at time of use," which the District must use in its annual equivalency demonstrations to USEPA. Therefore, use of the 2001-2002 baseline to generate more "surplus at time of use" NOx ERC credits could potentially aid the District in its equivalency demonstrations.

Response:

Section 3.8 of Rule 2201 defines baseline period as a period of time equal to either the two consecutive years of operation immediately prior to the submission date of the complete application, or at least two consecutive years within the five years immediately prior to the submission of date of complete application if determined by the APCO as more representative of normal source operation.

We have selected two consecutive years (2003-2004) out of five years (2001-2005) immediately prior to the submission of the date of complete application. During the five-year period, the average fuel consumption was 26,494 tpy of walnut shells. This average consumption is very close to the average fuel consumption of 25,352 tpy of walnut shells for 2003-2004 periods, rather than the average fuel consumption of 29,971 tpy for year 2001-2002 period. Therefore, the District believes that the baseline period of 2003-2004 was correctly identified for this project.

Original Draft Response:

The District has determined the baseline period (i.e. 1st quarter 2003 to 4th quarter 2004) using five-year records beginning 1st quarter of 2001 to 4th quarter of 2005. This baseline period most closely represent the "normal" source operation. Furthermore, the baseline period determination method is similar to other banking projects. Therefore, the District decided not to change the baseline period.

Comment #2:

If the District agrees to use a 2001-2002 baseline, the District should also use source test data from 2001 and 2002. This will change the NOx and PM10 emission factors. The NOx emission factors are 0.128 lb/MMBtu for 2001 and 0.112 lb/MMBtu for 2002. The PM10 emission factors are 0.0051 lb/MMBtu for 2001 and 0.0018 lb/MMBtu for 2002. These emission factors were derived from the 2001 and 2002 annual source tests. The derivation of these emission factors was presented in Diamond's ERC Application. These PM10 emission factors reflect 90% of the derived PM emission factors, which is consistent with the methodology that the District used in its calculations.

Response:

The District decided not change the baseline period.

Comment #3:

Diamond calculated the historic actual heat input rate based on a walnut shell heating value of 7,653 Btu/lb, which reflects the average of three shell analyses conducted in September, October, and November of 2003. The District calculated the historic actual heat input rate based on a walnut shell heating value of 7,409 Btu/lb, which reflects the lowest of three shell analyses conducted in September, October, and November of 2003. Diamond believes that it is inappropriate to use a worst-case fuel heat content to calculate long-term average emissions. Instead, the average heat content should be used to calculate the long-term baseline average emissions. This approach is consistent

with using the average emission rate from the annual source test to calculate annual emissions rather than the worst-case emission rate (i.e. the lowest emission rate from three test runs).

Response:

The District used the lowest heat input of three-shell analysis conducted in September, October and November of 2003 to identify Real and Surplus emission reductions. The averaging approach may not be good in this case because it will exaggerate the emissions reductions. Furthermore, the averaging approach cannot be related to the annual source test analogy, as source test runs are conducted on the same unit and most likely are conducted on the same day. However, in this case, each walnut shell stockpile may have a different heating value. For this reason, the District elected the lowest heat input of three-shell analysis.

Comment #4:

The District miscalculated the PM10 emission factor because it did not use an O2 adjustment in its F-factor calculation. This error understated the PM10 emissions. In its emission calculations, Diamond used the PM concentration adjusted to 12% CO_2 and a CO_2 F-Factor of 1,830 scf CO_2/MMBtu.

Response:

The District agrees with your comment and you are eligible to bank 49 pounds of PM_{10} in the first quarter and 4 pounds of PM_{10} in the third quarter. The District has decided not to re-notice this project, as it results in insignificant change to the total amount of credits being issued.

Comment #5:

When Diamond permitted its former backup boiler in 2005, Diamond accepted an annual fuel consumption limit of 62.5 billion Btu/yr (the equivalent of 20 MMBtu/hr for 3,125 hours per year, or 35.7% annual utilization). The District's Annual Emission Reduction calculations assumed that the Future Potential Emissions of the former backup boiler reflected 100% annual utilization (20 MMBtu/hr for 8,760 hours per year). Therefore, the District has overstated the Future Potential Emissions of the former backup boiler.

Response:

The District had removed 62.5 billion Btu/yr limit and issued an Authority to Construct permit N-285-106-3 on June 1, 2006.

The company had changed the operational status of this unit from a 'backup boiler' to a primary 'full-time boiler' to maintain sufficient steam that would otherwise be provided by the cogen boiler. In order to make emission reductions 'Real and Surplus', the full potential emissions are subtracted from the historical actual emissions rather than the partial potential emissions calculated using the difference of 8,760 hours per year and 3,125 hours per year.

Comment #6:

When Diamond permitted its former backup boiler in 2005, Diamond fully offset the emissions of NOx (683 lb/yr) and VOC (337 lb/yr) emissions. The District should incorporate these fully offset emissions rates into its Actual Emission Reduction calculation. Otherwise, Diamond will have essentially twice offset 62.5 billion Btu/yr of boiler capacity.

Response:

District Rule 2201, Section 4.12 states that Actual Emission Reductions (AER) shall be calculated on pollutant-by-pollutant basis, as follows:

AER = HAE – PE2

Where:

HAE = Historical Actual Emissions
PE2 = Post-project Potential to Emit

The amount of offsets provided for the backup boiler cannot be incorporated into AER calculations, as this action has no bearing on this banking application.

Jagmeet Kahlon

From: Jim Swaney
Sent: Friday, June 29, 2007 10:41 AM
To: Jagmeet Kahlon
Cc: Dave Warner
Subject: RE: Error in ERC calcs - do we need to re-notice the project

Jag,

Since this 50 lb increase is less than 10% of the total amount of ERC's (all pollutants) originally noticed, we'll consider it an insignificant change.

Thanks.

From: Dave Warner
Sent: Friday, June 29, 2007 10:37 AM
To: Jim Swaney
Cc: Jagmeet Kahlon
Subject: RE: Error in ERC calcs - do we need to re-notice the project

Re-notice only if the increase in total ERCs issued is greater than 10% increase over those originally noticed.

If <10%, let's just say that the comments resulted in an insignificant change to the total ERC issued, and proceed.

Thanks,

Dave

From: Jim Swaney
Sent: Friday, June 29, 2007 10:10 AM
To: Dave Warner
Cc: Jagmeet Kahlon
Subject: RE: Error in ERC calcs - do we need to re-notice the project
Importance: High

Dave,

Have you had a chance to think about this?

Thanks,
Jim

From: Jim Swaney
Sent: Friday, June 15, 2007 5:00 PM
To: Dave Warner
Cc: Jagmeet Kahlon
Subject: Error in ERC calcs - do we need to re-notice the project

Dave,

We have an ERC banking project out for public notice (Diamond Foods, N-285, 1061341, shutdown of walnut

shell cogen boiler). When we originally calculated the amount of credits they could receive, we calculated there were no PM10 credits they could get, and sent out the preliminary notice that way. The applicant found an error in our emission factor calculation, so they are eligible to receive 50 lb/yr of PM10 (49 lb in one quarter, 1 lb in another). The question is, for this increase in credits (0 lb/yr to 50 lb/yr), is this a significant increase that will require us to re-notice the project? All other pollutants are ok.

Please let us know.

Thanks,
Jim

TELEPHONE RECORD FORM

Project # N1061341

Date/Time/ Initials	Names of All Persons Involved and Conversation Record
5/11/06	I called Dan Welch of Sierra Research to find the date
8:00AM	of reduction. He said, it is 11/10/2005.
JK	
@(916)444-6666	

TELEPHONE RECORD FORM

Project # N-1061341

Date/Time/ Initials	Names of All Persons Involved and Conversation Record
6.11.07	I called and left a message for Theresa Anderson of
3:15PM	CARB. The reason for my call was to find if she has
JK	any comment on this project.
@ (916) 445-2159	
6.11.07	I called Laura Yannayon of US EPA to find if she
3:30PM	has any comment on this ERC banking project. She
JK	said, she need couple more days to review this project.
@	
(415) 972-3534	
6.15.07	I called Dan Welch of Sierra Research to find if
2:36PM	the applicant want to bank 50 lb/yr emission reductions based on revised
JK	calculations. I explained him that this project may be re-noticed
@ (916) 444-6666	with the revised PM_{10} calculations. He said, he want to
	check with Diamond Foods to see if they want to pursue
	this route.
6.21.07	I called Laura Yannayon of USEPA to find if she has any
9:58AM	comment on this project. She said, she don't have any comments.
JK	she told me to issue the ERCs.
@ (415) 972-3534	
6.21.07	I called and left a message for Theresa Anderson to see if
10:01AM	she has any comment on this project.
JK @ (916) 445-2159	
6.21.07	Theresa Anderson called and said that ARB does not have any
11:30AM JK	comment on this project.

TELEPHONE RECORD FORM

Project # N-1061341

Date/Time/ Initials	Names of All Persons Involved and Conversation Record
6.21.07	I called Dan Welch to find if he contacted Diamond Foods
11:33 AM	to determine if they still interested in banking 50 lb/yr of
JK	PM_{10}. He said, he will call back this afternoon regarding
@(916)444-6661	their decision.
2.12.08	Fred called me regarding their project N1070710.
4:00 PM	During this phone call, I discussed that the District is
JK	not going to change the baseline period. I also informed
	him that they are banking 53 lb-PM_{10}/yr now.
	He told me to address their comments in writing.
	I said I will do it.

DIAMOND OF CALIFORNIA
The World Leader in Culinary and Inshell Nuts

May 29, 2007

Mr. David Warner
Director of Permit Services
San Joaquin Valley Unified Air Pollution Control District
4800 Enterprise Way
Modesto, CA 95356-7818

Re: Diamond of California (Facility ID #N-285)
Notice of Preliminary Decision
Emission Reduction Credits (Project #N-1061341)

Dear Mr. Warner:

On May 4, 2007, the San Joaquin Valley Unified Air Pollution Control District (District) issued the Notice of Preliminary Decision for Diamond of California's (Diamond) Emission Reduction Credit (ERC) application (Project #1061341). The District's letter transmitting the Notice to Diamond directed Diamond to submit any written comments within 30 days of the publication of this Notice. This letter presents Diamond's comments on the Preliminary Decision.

1. Diamond proposed 2001-2002 as the two-year baseline for emission calculations, with an average fuel consumption of 29,971 tpy of walnut shells. The District used 2003-2004 as the two-year baseline in its Actual Emission Reduction calculation, with an average fuel consumption of 27,408 tpy of walnut shells. These two baselines are equidistant to the four-year (2001-2004) average of 28,689 tpy of walnut shells; the 2001-2002 baseline is higher by 1,282 tpy while the 2003-2004 baseline is lower by 1,282 tpy.

   Both baselines are equally representative of "actual operations." Use of the 2001-2002 baseline would serve to add more ERCs to the SJVAPCD market where supply of ERCs, which are needed to permit future projects and allow industrial growth within the District, is already constrained. Furthermore, the ERC market is even more constrained in the availability of NOx ERCs that qualify as "surplus at time of use," which the District must use in its annual equivalency demonstrations to USEPA. Therefore, use of the 2001-2002 baseline to generate more "surplus at time of use" NOx ERC credits could potentially aid the District in its equivalency demonstrations.

2. If the District agrees to use a 2001-2002 baseline, the District should also use source test data from 2001 and 2002. This will change the NOx and PM_{10} emission factors. The NOx emission factors are 0.128 lb/MMBtu for 2001 and 0.112 lb/MMBtu for 2002. The PM_{10} emission factors are 0.0051 lb/MMBtu for 2001 and 0.0018 lb/MMBtu for 2002. These emission factors were derived from the 2001 and 2002 annual source tests. The derivation of

1050 South Diamond Street • Stockton, CA 95205-7087
Tel: 209•467•6000 Fax: 209•467•6709 www.diamondnuts.com

these emission factors was presented in Diamond's ERC Application. These PM_{10} emission factors reflect 90% of the derived PM emission factors, which is consistent with the methodology that the District used in its calculations.

3. Diamond calculated the historic actual heat input rate based on a walnut shell heating value of 7,653 Btu/lb, which reflects the average of three shell analyses conducted in September, October, and November of 2003. The District calculated the historic actual heat input rate based on a walnut shell heating value of 7,409 Btu/lb, which reflects the lowest of the three shell analyses conducted in September, October, and November of 2003. Diamond believes that it is inappropriate to use a worst-case fuel heat content to calculate long-term average emissions. Instead, the average heat content should be used to calculate the long-term baseline average emissions. This approach is consistent with using the average emission rate from the annual source test to calculate annual emissions rather than the worst-case emission rate (i.e., the lowest emission rate from three test runs).

4. The District miscalculated the PM_{10} emission factor because it did not use an O_2 adjustment in its F-factor calculation. This error understated the PM_{10} emissions. In its emission calculations, Diamond used the PM concentration adjusted to 12% CO_2 and a CO_2 F-Factor of 1,830 scf CO_2/MMBtu.

5. When Diamond permitted its former backup boiler in 2005, Diamond accepted an annual fuel consumption limit of 62.5 billion Btu/year (the equivalent of 20 MMBtu/hr for 3,125 hours per year, or 35.7% annual utilization). The District's Annual Emission Reduction calculations assumed that the Future Potential Emissions of the former backup boiler reflected 100% annual utilization (20 MMBtu/hr for 8,760 hours per year). Therefore, the District has overstated the Future Potential Emissions of the former backup boiler.

6. When Diamond permitted its former backup boiler in 2005, Diamond fully offset the emissions of NOx (683 lb/yr) and VOC (337 lb/yr) emissions. The District should incorporate these fully offset emission rates into its Actual Emission Reduction calculation. Otherwise, Diamond will have essentially twice offset 62.5 billion Btu/year of boiler capacity.

If you have any questions regarding this application, please do not hesitate to call Dan Welch of Sierra Research at (916) 444-6666. Sierra Research is serving as our consultant on this project.

Sincerely,

Fred Jacobus
Vice President of Operations

encl.

cc: Dan Welch, Sierra Research

Jagmeet Kahlon

From: Jagmeet Kahlon
Sent: Thursday, May 03, 2007 5:17 PM
To: Lynn Sargenti
Subject: FW: Diamond Foods ERC Banking Project

Lynn,

Here is the revised application review. I will fax you the pages that need to go in Appendix VII and VIII.

Jagmeet

N0285,
061341-Rev2.dc

-----Original Message-----
From: Dave Warner
Sent: Thursday, May 03, 2007 5:02 PM
To: Rupi Gill
Cc: Lynn Sargenti; Jim Swaney; Jagmeet Kahlon
Subject: RE: Diamond Foods ERC Banking Project

OK, good to go. Send a new version to Lynn, and she can attach the letters I've already signed.

Dave

From: Rupi Gill
Sent: Monday, April 30, 2007 3:23 PM
To: Dave Warner
Subject: FW: Diamond Foods ERC Banking Project

Dave, enclosed the revised surplus section. Please review and let me know if it need any changes. Thanks

-----Original Message-----
From: Jagmeet Kahlon
Sent: Monday, April 30, 2007 3:17 PM
To: Rupi Gill
Subject: Diamond Foods ERC Banking Project

Rupi,

Here is the revised 'Surplus Section' of the ERC banking project.

Thanks,
Jagmeet

<< File: ERC Project_Surplus Section_Diamond Foods Inc.doc >>

San Joaquin Valley
Air Pollution Control District

COPY

May 31, 2006

Fred Jacobus
Diamond Walnut Growers Inc
P.O. Box 1727
Stockton, CA 95201

Re: Notice of Receipt of Complete Application - Emission Reduction Credits
Project Number: N-1061341

Dear Mr. Jacobus:

The District has completed a preliminary review of your application for Emission Reduction Credits (ERCs) resulting from shutdown of the cogeneration boiler that was permitted under N-0285-34, at 1050 S Diamond Street, Stockton, California.

Based on this preliminary review, the application appears to be complete. However, during processing of your application, the District may request additional information to clarify, correct, or otherwise supplement, the information on file.

Pursuant to District Rule 3010, section 3.0, your application may be subject to an hourly Engineering Evaluation Fee. If the applicable fees exceed the submitted application filing fee, the District will notify you at the conclusion of our review.

Thank you for your cooperation. Should you have any questions, please contact Mr. Jim Swaney at (209) 557-6400.

Sincerely,

David Warner
Director of Permit Services

Jim Swaney, P.E.
Permit Services Manager

DW: jk

cc: Dan Welch, Sierra Research Inc
1801 J Street
Sacramento, CA 95814

Seyed Sadredin
Executive Director / Air Pollution Control Officer

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

Central Region Office
1990 East Gettysburg Avenue
Fresno, CA 93726-0244
(559) 230-6000 • FAX (559) 230-6061

Southern Region Office
2700 M Street, Suite 275
Bakersfield, CA 93301-2373
(661) 326-6900 • FAX (661) 326-6985

www.valleyair.org

Addendum to Application Review

Facility Name:	Diamond Foods Inc	Revised Date:	February 12, 2008
Mailing Address:	P.O. Box 1727	Engineer:	Jagmeet Kahlon
	Stockton, CA 95201	Lead Engineer:	Rupi Gill
Contact Person:	Dan Welch, Sierra Research		
Telephone:	(916) 444-6666		
Facility ID:	N-0285		
Project #:	N-1061341		

I. Project Background

Diamond Foods has applied to bank Emission Reduction Credits (ERCs) from shutdown of the cogeneration boiler permitted under N-0285-34-1. The boiler was using walnut shells. The exhaust of the boiler was served by a baghouse and fly ash entrainment system to reduce particulate matter emissions into the atmosphere.

On May 4, 2007 the District issued the Notice of Preliminary Decision for the Emission Reduction Credit (ERC) application. During 30-day public comment period, the District received comments from the facility related to this project. One of the comments was an error in establishing the PM_{10} emission factor that understated their actual PM_{10} emissions. Thus, this addendum is prepared to re-determine the bankable credits for PM_{10} only. Based on this analysis, the facility is eligible to bank the amounts provided in the following table:

	Bankable Emission Reductions in lb/quarter			
Pollutant	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
PM_{10}	49	0	4	0

Since this project results in an insignificant change to the total amount of total ERC being issued, the project will not be re-noticed.

II. PM_{10} Emission Factor

According to the source test conducted on 10/25/2005, the PM emissions from the boiler were 0.0020 gr-PM/dscf. This number is converted into lb-PM/MMBtu number using oxygen based F-factor of 9,100 dscf/MMBtu corrected to 5.197% oxygen concentration during the source test.

= 0.0020 gr-PM/dscf × 9,100 dscf/MMBtu × [20.9/(20.9-5.197)] × lb/7,000 gr
= 0.00346 lb-PM/MMBtu

Using AP-42 Table 1.6-1 (9/03) for Dry Wood, a fraction of pounds of PM_{10} per pound of PM is determined and applied to the above calculated PM emissions to calculate the PM_{10} emissions. The calculations are given as follows:

lb-PM_{10}/lb-PM = (0.36 lb-PM_{10}/MMBtu)/(0.40 lb-PM/MMBtu) = 0.90 lb-PM_{10}/lb-PM

PM_{10} Emissions = 0.00346 lb-PM/MMBtu × 0.90 lb-PM_{10}/lb-PM = 0.0031 lb-PM_{10}/MMBtu

The following table shows PM emissions concentrations from permit N-0285-34-1, District Rule 4352, source tests, and AP-42 Section 1.6. Since the boiler was not source tested for PM emissions in the time period of 2003 and 2004, results from 2005 will be used.

PM_{10}				
Permit Unit	Permit Limit	Rule 4352	Source Test Results	AP-42 Table 1.6-1 (9/03)
			2005 (10/25/05)	
N-0285-34-1	0.015 gr-PM/dscf and 2.2 lb/hr	--	**0.0031 lb/MMBtu**	0.0036 lb/MMBtu

III. Historical Actual Emissions during the Baseline Period

Quarterly HAEs for PM_{10}				
Year	Quarter	Heat Input (MMBtu/qtr)	EF (lb/MMBtu)	HAEs (lb/qtr)
2003	1	123,212	0.0031	382
	2	96,183		298
	3	119,270		370
	4	77,009		239
Year	Quarter	Heat Input (MMBtu/qtr)	EF (lb/MMBtu)	HAEs (lb/qtr)
2004	1	126,590	0.0031	392
	2	117,669		365
	3	98,688		306
	4	53,626		166

Average HAE for each quarter are presented in the following table.

Quarterly HAEs for PM_{10}	
Quarter	HAEs (lb/qtr)
1	387
2	332
3	338
4	203

IV. Actual Emission Reductions

In May 2006, Diamond Foods has changed the operational status of a 20.0 MMBtu/hr natural gas-fired boiler (permitted under N-285-106) from a 'backup boiler' to a primary 'full-time boiler' to provide additional steam that would otherwise be supplied by the cogen boiler. This boiler was treated as new unit for New Source Review purposes. The quarterly PM10 emissions from this boiler are identified in the original banking evaluation as follows:

PE2 lb/quarter				
Pollutant	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
PM_{10}	333	333	333	333

Per Rule 2201, Section 4.12, the Actual Emission Reductions (AERs) would be the difference of HAEs from the cogen boiler and the potential emissions from a 20.0 MMBtu/hr natural gas-fired unit. AERs resulted in negative numbers are equated to zero.

AER in lb/quarter				
Pollutant	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
PM_{10}	54	0	5	0

V. Air Quality Improvement Deductions

The air quality improvement deduction, per Rule 2201, Section 4.12.1, is 10% of the AERs.

Air Quality Improvement Deduction in lb/quarter				
Pollutant	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
PM_{10}	5	0	1	0

VI. Bankable Emission Reductions

The bankable emission reductions are determined by subtracting the Air Quality Improvement Deductions from the AERs for each pollutant.

Bankable Emission Reductions in lb/quarter				
Pollutant	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
PM_{10}	49	0	4	0

VII. Compliance

To comply with the definition of Actual Emissions Reductions (Rule 2201, Section 3.2.1 and Rule 2301, Sections 3.6 and 4.2.1), the reductions must be:

Real

The emissions reductions are real since they were generated by shutdown of the emissions unit. Furthermore, the potential emissions from the replacement steam source (i.e. boiler N-285-106) have been deducted from the historical actual emissions of the cogen boiler.

Enforceable

The reductions are enforceable since the Permits to Operate (PTO) have been surrendered; further operation would subject the owner to enforcement actions.

Quantifiable

The reductions are quantifiable since they were calculated from historic fuel consumption data, and established EFs, and methods according to District Rule 2201.

Permanent

The reductions are permanent since the applicant had shutdown the emissions unit, and the PTO has been surrendered; further operation would require a permit from the District.

Surplus

This section will contain an explanation of what actions were taken to ensure that all PM_{10} emission reductions were surplus of the existing and newly proposed rules and plans. The following rules and plans were analyzed:

District Rule 2201 New and Modified Stationary Source Review
District Rule 4201 Particulate Matter Concentration
District Rule 4202 Particulate Matter-Emission Rate
District Rule 4352 Solid Fuel Fired Boilers, Steam Generators and Process Heaters
District Rule 4801 Sulfur Compounds
2006 PM10 Plan
2007 Ozone Plan

District Rule 2201: New and Modified Stationary Source Review

Section 3.15 of this Rule states that each Permit to Operate shall have Daily Emission Limitations (DELs), which are permit conditions that restrict a unit's maximum daily emissions.

The boiler's Permit to Operate contained the following DELs:

NO_x: 250 lb/day
PM: 0.015 gr/scf and 2.2 lb-PM/hr

The boiler's actual emissions during the baseline period were:

2003:

NOx: 203.9 lb/day (Source tested on 4/8/03)
PM: 0.0020 gr/dscf (Source tested on 10/25/05)

2004:

NOx: 207.6 lb/day (Source tested on 4/8/03)
PM: 0.0020 gr/dscf (Source tested on 10/25/05)

Therefore, this unit was in compliance with the requirements of this Rule during the baseline period.

The actual particulate emissions were less than 2.2 lb-PM/hr limit. Therefore, this unit was in compliance with this Rule during the baseline period. Refer to Rule 4202 discussion.

District Rule 4201: Particulate Matter Concentration

PM concentration of 0.0020 gr/dscf was found during source test on 10/25/2005. This number is used to determine the PM_{10} emissions during the baseline period. Since this number is less than 0.1 gr/dscf threshold limit, the reductions are surplus of this rule.

District Rule 4202: Particulate Matter-Emission Rate

Condition #13 of permit N-0285-34-1 states, "The particulate matter emissions shall not exceed the hourly rate as calculated in District Rule 4202 using the equation $E=3.59 P^{0.62}$ if P is less than or equal to 30 tons per hour, or $E = 17.31 P^{0.16}$ if P is greater than 30 tons per hour."

In the following table, the process weight (tons) is taken from Step 3 of Appendix II of the original evaluation, process weight (tons/hr) is calculated using number of days in a

particular month and 24 hours of operation, Emax (lb/hr) is calculated using equation $E=3.59\ P^{0.62}$ where P is the process weight (tons/hr).

Month	Process weight (tons)		Process Weight (tons/hr)		Emax (lb/hr)	
	2003	2004	2003	2004	2003	2004
January	2,886	3,238	3.88	4.35	8.32	8.93
February	2,579	2,252	3.84	3.35	8.26	7.60
March	2,850	3,053	3.83	4.10	8.26	8.61
April	1,023	2,344	1.42	3.26	4.46	7.46
May	2,696	2,680	3.62	3.60	7.98	7.95
June	2,772	2,917	3.85	4.05	8.28	8.55
July	2,796	3,455	3.76	4.64	8.16	9.30
August	2,897	2,875	3.89	3.86	8.34	8.30
September	2,356	330	3.27	0.46	7.49	2.21
October	2,051	0	2.76	0.00	6.73	0.00
November	885	2,938	1.23	4.08	4.08	8.59
December	2,261	681	3.04	0.92	7.15	3.40

In the following table, heat input (MMBtu) is taken from Step 3 of Appendix II of the original evaluation, heat input (MMBtu/hr) is calculated using number of days in a particular month and 24 hours of operation, Eactual (lb/hr) is calculated using equation E = 0.00346 lb-PM/MMBtu × Heat Input (MMBtu/hr).

Month	Heat Input (MMBtu)		Heat Input (MMBtu/hr)		Eactual (lb/hr)	
	2003	2004	2003	2004	2003	2004
January	42,765	47,981	57.48	64.49	0.20	0.22
February	38,216	33,370	56.87	49.66	0.20	0.17
March	42,231	45,239	56.76	60.81	0.20	0.21
April	15,159	34,733	21.05	48.24	0.07	0.17
May	39,949	39,712	53.69	53.38	0.19	0.18
June	41,075	43,224	57.05	60.03	0.20	0.21
July	41,431	51,196	55.69	68.81	0.19	0.24
August	42,928	42,602	57.70	57.26	0.20	0.20
September	34,911	4,890	48.49	6.79	0.17	0.02
October	30,392	0	40.85	0.00	0.14	0.00
November	13,114	43,535	18.21	60.47	0.06	0.21
December	33,503	10,091	45.03	13.56	0.16	0.05

Since Eactual (lb/hr) is less than Emax (lb/hr) for each month during the baseline period, the unit was in compliance with this Rule.

District Rule 4352 Solid Fuel Fired Boilers, Steam Generators and Process Heaters

This unit was in compliance with this Rule. Please refer to the main document for details.

District Rule 4801: Sulfur Compounds

This unit was in compliance with this Rule. Please refer to the main document for details.

2006 PM10 Plan

Section 4.4.2 of '2006 PM10 Plan' is examined to find the proposed PM_{10} control measures for biomass-fueled steam generators.

Currently, this plan does not have any specific PM_{10} emission limits for biomass-fueled steam generators. Therefore, no further discussion is necessary.

2007 Ozone Plan

This unit was in compliance with this Rule. Please refer to the main document for details.

Summary:

Based on the above discussion, the HAEs calculated are surplus of all the applicable Rules and Regulations.

Not used for the approval of an Authority to Construct or as Offsets

The ERCs generated by the shutdown of the cogeneration boiler were not used in the approval of an Authority to Construct or as offsets for any project.

Timely Submittal

Section 5.5 of Rule 2301 states that ERC certificate applications for reductions shall be submitted within 180 days after shutdown (date of permanent cession of emissions). Shutdown occurred on November 10, 2005, and the ERC application was received on May 09, 2006. The application was received within 180 days of the shutdown date. Therefore, the application was submitted in a timely fashion.

VIII. Recommendation

The District recommends that ERC Certificate for PM10 be issued to Diamond Foods Inc for the amount indicated in the following table.

Bankable Emission Reductions in lb/quarter				
Pollutant	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
PM_{10}	49	0	4	0

JK

RECEIVED

MAR 20 2008

FINANCE
SJVAPCD

RECEIVED

MAR 27 2008

SJVAPCD
NORTHERN REGION

PROOF OF PUBLICATION
NOTICE

STATE OF CALIFORNIA
COUNTY OF SAN JOAQUIN

THE UNDERSIGNED SAYS:

I am a citizen of the United States and a resident of San Joaquin County; I am over the age of 18 years and not a part to or interested in the above-entitled matter. I am the principal clerk of the printer of THE RECORD, a newspaper of general publication, printed and published daily in the City of Stockton, County of San Joaquin and which newspaper has been adjudged a newspaper of general circulation in the City of Stockton and the County of San Joaquin by the Superior Court of the County of San Joaquin, State of California, under the date of February 26, 1952, File No. 52857, San Joaquin County Records; that the notice of which the annexed is a printed copy (set in type not smaller than nonpareil), has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates,
To wit, March 17
All in the year, 2008

I declare under penalty of perjury that the foregoing is true and correct.
Executed on March 17th ,2008
In Stockton, California.

Laurie Costello

Laurie Costello

NOTICE OF FINAL ACTION FOR THE ISSUANCE OF EMISSION REDUCTION CREDITS

NOTICE IS HEREBY GIVEN that the Air Pollution Control Officer has issued Emission Reduction Credits (ERCs) to Diamond Foods Inc for emission reduction generated by shutdown of the walnut shell-fired cogeneration boiler, at 1050 S Diamond Street, Stockton, California. The quantity of ERCs to be issued is 41,668 lb/year for NOx, 108,573 lb/year for CO, 53 lb/year for PM10, 8,690 lb/year for SOx and 5,348 lb/year for VOC.

All comments received following the District's preliminary decision on this project were considered.

Comments received by the District during the public notice period resulted in banking of 53 lb/year of PM10. These changes were minor and did not affect the basis for issuance of the above referenced ERCs.

The application review for Project #N-1061341 is available for public inspection at the SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT, 4800 ENTERPRISE WAY, MODESTO, CA 95356.

#672868 3/17/08

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Sent To — Fred Jacobus

Diamond Foods Inc.

Street, Apt or PO Box — PO Box 1727

City, State, — Stockton, CA 95201

PS Form 3800, August 2006 — See Reverse for Instructions

3+

☒ NORTHERN REGION
☐ CENTRAL REGION
☐ SOUTHERN REGION

ERC/PUBLIC NOTICE CHECK LIST

RECEIVED
MAR 12 2008
SJVAPCD
NORTHERN REGION

PROJECT #s: N-1061341

√ REQST.	√ COMPL.	
—	—	ERC TRANSFER OF PREVIOUSLY BANKED CREDITS
—	—	ERC PRELIMINARY PUBLIC NOTICE
√	—	ERC FINAL PUBLIC NOTICE
—	—	NSR/CEQA PRELIMINARY PUBLIC NOTICE
—	—	NSR/CEQA FINAL PUBLIC NOTICE

Date Completed 12/14/08/By Rupi Gill

√ ☐ Newspaper Notice Emailed to Clerical (Check box and tab to generate Notice)

ENCLOSED DOCUMENTS REQUIRE:

√ — Director's Signature and District Seal Embossed on ERC Certificates

√ — Send ***FINAL*** notice letters to CARB and EPA including the following:
- √ Public Notice
- √ Copies of ERC Certificates

√ — Send ***FINAL*** notice letter to applicant by **Certified Mail** including the following:
- √ Public Notice
- √ Original ERC Certificates

√ — Send the following to regional engineer, Jagmeet Kahlon:
- √ Copies of All ***FINAL*** Notice Letters
- √ Public Notice
- √ Copies of ERC Certificates

√ — Send ***FINAL*** Public Notice for Publication to Stockton Record

√ — Assign Mailing Date

— — Other Special Instructions (please specify):_____

Lynn Sargenti

From: postmaster@sjvweb
Sent: Tuesday, March 11, 2008 4:07 PM
To: Lynn Sargenti
Subject: Delivery Status Notification (Relay)


ATT7315419.txt Public Notice, roject #N-1061.

This is an automatically generated Delivery Status Notification.

Your message has been successfully relayed to the following recipients, but the requested delivery status notifications may not be generated by the destination.

legals@recordnet.com

Lynn Sargenti

From: Lynn Sargenti
Sent: Tuesday, March 11, 2008 3:56 PM
To: STOCKTON RECORD (E-mail)
Cc: Tony Reyes; Ryan Kincaid
Subject: Public Notice, Project #N-1061341

Importance: High


STOCKTON ORD COVER PG


Stockton ord (final), 1061

Lynn Sargenti
Sr. Office Assistant
Permits Division - Central Region
SJV Air Pollution Control District
lynn.sargenti@valleyair.org

Tracking:

Recipient	Delivery
STOCKTON RECORD (E-mail)	
Tony Reyes	Delivered: 3/11/2008 3:56 PM
Ryan Kincaid	Delivered: 3/11/2008 3:56 PM

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

MAR 1 1 2008

Fred Jacobus
Diamond Foods Inc
P.O. Box 1727
Stockton, CA 95201

RE: Notice of Final Action - Emission Reduction Credits
Project Number: N-1061341

Dear Mr. Jacobus:

The Air Pollution Control Officer has issued Emission Reduction Credits (ERCs) to Diamond Foods Inc for emission reduction generated by shutdown of the walnut shell-fired cogeneration boiler, at 1050 S Diamond Street, Stockton, California. The quantity of ERCs to be issued is 41,668 lb/year for NOx, 108,573 lb/year for CO, 53 lb/year for PM_{10}, 8,690 lb/year for SOx and 5,348 lb/year for VOC.

Notice of the District's preliminary decision to issue the ERC Certificates was published on May 10, 2007. The District's analysis of the proposal was also sent to CARB and US EPA Region IX on May 4, 2007. All comments received following the District's preliminary decision on this project were considered. These comments resulted in banking of 53 lb/year of PM_{10}. This amount is significantly less compared to the amount of ERCs banked for the other pollutants. Therefore, this project is not re-noticed.

Enclosed are copies of the ERC Certificates, District response to each comment and a copy of the notice of final action to be published approximately three days from the date of this letter. Also, enclosed is an invoice for the engineering evaluation fees pursuant to District Rule 3010. Please remit the amount owed, along with a copy of the attached invoice, within 60 days.

Thank you for your cooperation in this matter. If you have any questions, please contact Mr. Jim Swaney at (209) 557-6400.

Sincerely,

David Warner
Director of Permit Services

DW:JK/ls

Enclosures

Seyed Sadredin
Executive Director/Air Pollution Control Officer

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

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

Southern Region
2700 M Street, Suite 275
Bakersfield, CA 93301-2373
Tel: (661) 326-6900 FAX: (661) 326-6985

www.valleyair.org

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

MAR 1 1 2008

Mike Tollstrup, Chief
Project Assessment Branch
Stationary Source Division
California Air Resources Board
PO Box 2815
Sacramento, CA 95812-2815

RE: Notice of Final Action - Emission Reduction Credits
Project Number: N-1061341

Dear Mr. Tollstrup:

The Air Pollution Control Officer has issued Emission Reduction Credits (ERCs) to Diamond Foods Inc for emission reduction generated by shutdown of the walnut shell-fired cogeneration boiler, at 1050 S Diamond Street, Stockton, California. The quantity of ERCs to be issued is 41,668 lb/year for NOx, 108,573 lb/year for CO, 53 lb/year for PM_{10}, 8,690 lb/year for SOx and 5,348 lb/year for VOC.

Notice of the District's preliminary decision to issue the ERC Certificates was published on May 10, 2007. The District's analysis of the proposal was also sent to CARB and US EPA Region IX on May 4, 2007. All comments received following the District's preliminary decision on this project were considered. These comments resulted in banking of 53 lb/year of PM_{10}. This amount is significantly less compared to the amount of ERCs banked for the other pollutants. Therefore, this project is not re-noticed.

Enclosed are copies of the ERC Certificates, District response to each comment and a copy of the notice of final action to be published approximately three days from the date of this letter.

Thank you for your cooperation in this matter. If you have any questions, please contact Mr. Jim Swaney at (209) 557-6400.

Sincerely,

David Warner
Director of Permit Services

DW:JK/ls

Enclosures

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San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

MAR 1 1 2008

Gerardo C. Rios (AIR 3)
Chief, Permits Office
Air Division
U.S. E.P.A. - Region IX
75 Hawthorne Street
San Francisco, CA 94105

RE: Notice of Final Action - Emission Reduction Credits
Project Number: N-1061341

Dear Mr. Rios:

The Air Pollution Control Officer has issued Emission Reduction Credits (ERCs) to Diamond Foods Inc for emission reduction generated by shutdown of the walnut shell-fired cogeneration boiler, at 1050 S Diamond Street, Stockton, California. The quantity of ERCs to be issued is 41,668 lb/year for NOx, 108,573 lb/year for CO, 53 lb/year for PM_{10}, 8,690 lb/year for SOx and 5,348 lb/year for VOC.

Notice of the District's preliminary decision to issue the ERC Certificates was published on May 10, 2007. The District's analysis of the proposal was also sent to CARB and US EPA Region IX on May 4, 2007. All comments received following the District's preliminary decision on this project were considered. These comments resulted in banking of 53 lb/year of PM_{10}. This amount is significantly less compared to the amount of ERCs banked for the other pollutants. Therefore, this project is not re-noticed.

Enclosed are copies of the ERC Certificates, District response to each comment and a copy of the notice of final action to be published approximately three days from the date of this letter.

Thank you for your cooperation in this matter. If you have any questions, please contact Mr. Jim Swaney at (209) 557-6400.

Sincerely,

David Warner
Director of Permit Services

DW:JK/ls

Enclosures

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NOTICE OF FINAL ACTION
FOR THE ISSUANCE OF
EMISSION REDUCTION CREDITS

NOTICE IS HEREBY GIVEN that the Air Pollution Control Officer has issued Emission Reduction Credits (ERCs) to Diamond Foods Inc for emission reduction generated by shutdown of the walnut shell-fired cogeneration boiler, at 1050 S Diamond Street, Stockton, California. The quantity of ERCs to be issued is 41,668 lb/year for NOx, 108,573 lb/year for CO, 53 lb/year for PM_{10}, 8,690 lb/year for SOx and 5,348 lb/year for VOC.

All comments received following the District's preliminary decision on this project were considered.

Comments received by the District during the public notice period resulted in banking of 53 lb/year of PM_{10}. These changes were minor and did not affect the basis for issuance of the above referenced ERCs.

The application review for Project #N-1061341 is available for public inspection at the SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT, 4800 ENTERPRISE WAY, MODESTO, CA 95356.

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

Northern Regional Office • 4800 Enterprise Way • Modesto, CA 95356-8718

Emission Reduction Credit Certificate
N-645-1

ISSUED TO: DIAMOND FOODS INCORPORATED

ISSUED DATE: February 20, 2008

LOCATION OF REDUCTION: 1050 S DIAMOND STREET
STOCKTON, CA 95205

For VOC Reduction In The Amount Of:

Quarter 1	Quarter 2	Quarter 3	Quarter 4
1,695 lbs	1,419 lbs	1,451 lbs	783 lbs

[ ] Conditions Attached

Method Of Reduction

[ ] Shutdown of Entire Stationary Source
[X] Shutdown of Emissions Units
[ ] Other

shutdown of the cogeneration boiler

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

Seyed Sadredin, Executive Director / APCO

David Warner, Director of Permit Services

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

Northern Regional Office • 4800 Enterprise Way • Modesto, CA 95356-8718

Emission Reduction Credit Certificate
N-645-2

ISSUED TO: DIAMOND FOODS INCORPORATED

ISSUED DATE: February 20, 2008

LOCATION OF REDUCTION: 1050 S DIAMOND STREET
STOCKTON, CA 95205

For NOx Reduction In The Amount Of:

Quarter 1	Quarter 2	Quarter 3	Quarter 4
12,961 lbs	11,125 lbs	11,136 lbs	6,446 lbs

[ ] Conditions Attached

Method Of Reduction

[ ] Shutdown of Entire Stationary Source
[X] Shutdown of Emissions Units
[ ] Other

shutdown of the cogeneration boiler

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

Seyed Sadredin, Executive Director / APCO

David Warner, Director of Permit Services

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

Northern Regional Office • 4800 Enterprise Way • Modesto, CA 95356-8718

Emission Reduction Credit Certificate
N-645-3

ISSUED TO: DIAMOND FOODS INCORPORATED

ISSUED DATE: February 20, 2008

LOCATION OF REDUCTION: 1050 S DIAMOND STREET
STOCKTON, CA 95205

For CO Reduction In The Amount Of:

Quarter 1	Quarter 2	Quarter 3	Quarter 4
33,727 lbs	28,663 lbs	29,241 lbs	16,942 lbs

[ ] Conditions Attached

Method Of Reduction

[ ] Shutdown of Entire Stationary Source
[X] Shutdown of Emissions Units
[ ] Other

shutdown of the cogeneration boiler

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

Seyed Sadredin, Executive Director / APCO

David Warner, Director of Permit Services

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

Northern Regional Office • 4800 Enterprise Way • Modesto, CA 95356-8718

Emission Reduction Credit Certificate
N-645-4

ISSUED TO: DIAMOND FOODS INCORPORATED

ISSUED DATE: February 20, 2008

LOCATION OF REDUCTION: 1050 S DIAMOND STREET
STOCKTON, CA 95205

For PM10 Reduction In The Amount Of:

Quarter 1	Quarter 2	Quarter 3	Quarter 4
49 lbs	None	4 lbs	None

[ ] Conditions Attached

Method Of Reduction

[ ] Shutdown of Entire Stationary Source
[X] Shutdown of Emissions Units
[ ] Other

shutdown of the cogeneration boiler

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

Seyed Sadredin, Executive Director / APCO

David Warner, Director of Permit Services

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

Northern Regional Office • 4800 Enterprise Way • Modesto, CA 95356-8718

Emission Reduction Credit Certificate
N-645-5

ISSUED TO: DIAMOND FOODS INCORPORATED

ISSUED DATE: February 20, 2008

LOCATION OF REDUCTION: 1050 S DIAMOND STREET
STOCKTON, CA 95205

For SOx Reduction In The Amount Of:

Quarter 1	Quarter 2	Quarter 3	Quarter 4
2,699 lbs	2,294 lbs	2,340 lbs	1,357 lbs

[ ] Conditions Attached

Method Of Reduction

[ ] Shutdown of Entire Stationary Source
[X] Shutdown of Emissions Units
[ ] Other

shutdown of the cogeneration boiler

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

Seyed Sadredin, Executive Director / APCO

David Warner, Director of Permit Services

DISTRICT RESPONSE TO DIAMOND FOODS INC'S COMMENTS

Comment #1:

Diamond proposed 2001-2002 as the two-year baseline for emission calculations, with an average fuel consumption of 29,971 tpy of walnut shells. The District used 2003-2004 as the two-year baseline in its Actual Emission Reduction calculation, with an average fuel consumption of 27,408 tpy of walnut shells. These two baselines are equidistant to the four-year (2001-2004) average of 28,689 tpy of walnut shells; the 2001-2002 baseline is higher by 1,282 tpy while the 2003-2004 baseline is lower by 1,282 tpy.

Both baselines are equally representative of "actual emissions." Use of the 2001-2002 baseline would serve to add more ERCs to the SJVAPCD market where supply of ERCs, which are needed to permit future projects and allow industrial growth within the District, is already constrained. Furthermore, the ERC market is even more constrained in the availability of NOx ERCs that qualify as "surplus at time of use," which the District must use in its annual equivalency demonstrations to USEPA. Therefore, use of the 2001-2002 baseline to generate more "surplus at time of use" NOx ERC credits could potentially aid the District in its equivalency demonstrations.

Response:

Section 3.8 of Rule 2201 defines baseline period as a period of time equal to either the two consecutive years of operation immediately prior to the submission date of the complete application, or at least two consecutive years within the five years immediately prior to the submission of date of complete application if determined by the APCO as more representative of normal source operation.

The average fuel consumption for the boiler was 26,494 tpy for the period of 2001-2005. The fuel consumption during 2003-2004 was closer to this average, rather than the fuel consumption during 2001-2002. Therefore, the baseline period of year 2003-2004 was correctly identified for this project.

Comment #2:

If the District agrees to use a 2001-2002 baseline, the District should also use source test data from 2001 and 2002. This will change the NOx and PM10 emission factors. The NOx emission factors are 0.128 lb/MMBtu for 2001 and 0.112 lb/MMBtu for 2002. The PM10 emission factors are 0.0051 lb/MMBtu for 2001 and 0.0018 lb/MMBtu for 2002. These emission factors were derived from the 2001 and 2002 annual source tests. The derivation of these emission factors was presented in Diamond's ERC Application. These PM10 emission factors reflect 90% of the derived PM emission factors, which is consistent with the methodology that the District used in its calculations.

Response:

Since the baseline period was correctly identified, changes to the NOx and PM10 emission factors are not necessary.

Comment #3:

Diamond calculated the historic actual heat input rate based on a walnut shell heating value of 7,653 Btu/lb, which reflects the average of three shell analyses conducted in September, October, and November of 2003. The District calculated the historic actual heat input rate based on a walnut shell heating value of 7,409 Btu/lb, which reflects the lowest of three shell analyses conducted in September, October, and November of 2003. Diamond believes that it is inappropriate to use a worst-case fuel heat content to calculate long-term average emissions. Instead, the average heat content should be used to calculate the long-term baseline average emissions. This approach is consistent with using the average emission rate from the annual source test to calculate annual emissions rather than the worst-case emission rate (i.e. the lowest emission rate from three test runs).

Response:

The District used the lowest heat input of three-shell analysis conducted in September, October and November of 2003 to identify Real and Surplus emission reductions. The averaging approach may not be good in this case because it will exaggerate the emissions reductions. Furthermore, the averaging approach cannot be related to the annual source test analogy, as source test runs are conducted on the same unit and most likely are conducted on the same day. However, in this case, each walnut shell stockpile may have a different heating value. For this reason, the District elected the lowest heat input of three-shell analysis.

Comment #4:

The District miscalculated the PM10 emission factor because it did not use an O2 adjustment in its F-factor calculation. This error understated the PM10 emissions. In its emission calculations, Diamond used the PM concentration adjusted to 12% CO_2 and a CO_2 F-Factor of 1,830 scf CO_2/MMBtu.

Response:

The District agrees with your comment and you are eligible to bank 49 pounds of PM_{10} in the first quarter and 4 pounds of PM_{10} in the third quarter. The District has decided not to re-notice this project, as it results in insignificant change to the total amount of credits being issued.

Comment #5:

When Diamond permitted its former backup boiler in 2005, Diamond accepted an annual fuel consumption limit of 62.5 billion Btu/yr (the equivalent of 20 MMBtu/hr for 3,125 hours per year, or 35.7% annual utilization). The District's Annual Emission Reduction calculations assumed that the Future Potential Emissions of the former backup boiler reflected 100% annual utilization (20 MMBtu/hr for 8,760 hours per year). Therefore, the District has overstated the Future Potential Emissions of the former backup boiler.

Response:

The District had removed 62.5 billion Btu/yr limit and issued an Authority to Construct permit N-285-106-3 on June 1, 2006.

The company had changed the operational status of this unit from a 'backup boiler' to a primary 'full-time boiler' to maintain sufficient steam that would otherwise be provided by the cogen boiler. In order to make emission reductions 'Real and Surplus', the full potential emissions are subtracted from the historical actual emissions rather than the partial potential emissions calculated using the difference of 8,760 hours per year and 3,125 hours per year.

Comment #6:

When Diamond permitted its former backup boiler in 2005, Diamond fully offset the emissions of NOx (683 lb/yr) and VOC (337 lb/yr) emissions. The District should incorporate these fully offset emissions rates into its Actual Emission Reduction calculation. Otherwise, Diamond will have essentially twice offset 62.5 billion Btu/yr of boiler capacity.

Response:

District Rule 2201, Section 4.12 states that Actual Emission Reductions (AER) shall be calculated on pollutant-by-pollutant basis, as follows:

AER = HAE – PE2

Where:

HAE = Historical Actual Emissions
PE2 = Post-project Potential to Emit

The amount of offsets provided for the backup boiler cannot be incorporated into AER calculations, as this action has no bearing on this banking application.

DISTRICT RESPONSE TO US EPA'S COMMENT

No comment was received from EPA.

DISTRICT RESPONSE TO CARB'S COMMENT

No comment was received from CARB.

DIAMOND OF CALIFORNIA
The World Leader in Culinary and Inshell Nuts

May 9, 2006

Jim Swaney
Permit Services Manager
San Joaquin Valley Unified Air Pollution Control District
4800 Enterprise Way
Modesto, CA 95356-7818

Re: Diamond of California (Facility ID #N-285)
Emission Reduction Credit Application for
The Shutdown of the Cogeneration Boiler (Permit Unit #N-285-34-1)

Dear Mr. Swaney:

Diamond of California (Diamond) is pleased to submit to the San Joaquin Valley Unified Air Pollution Control District (District) an application for a Emission Reduction Credits (ERC) for the shutdown of the cogeneration boiler at its facility in Stockton, California. The shutdown of this boiler will reduce emissions of CO, NOx, PM_{10}, SOx, and VOC from the facility. Diamond requests formal certification of the emission reductions from the cogeneration boiler shutdown as emission reduction credits in accordance with District Rule 2301.

We have enclosed a support document that details the calculation of ERCs. We have also included the required ERC application form and the $650 application filing fee for this submittal. Diamond understands that the District will reduce the actual emission reduction by a ten percent adjustment and issue the balance to Diamond as ERCs.

If you have any questions regarding this application, please do not hesitate to call Dan Welch of Sierra Research at (916) 444-6666. Sierra Research is serving as our consultant on this project.

Sincerely,

Fred Jacobus
Vice President of Operations

encl.

Cc: Dan Welch, Sierra Research

1050 South Diamond Street • Stockton, CA 95205-7087
Tel: 209•467•6000 Fax: 209•467•6709 www.diamondnuts.com

San Joaquin Valley Air Pollution Control District

Application for

[X] EMISSION REDUCTION CREDIT (ERC) [ ] CONSOLIDATION OF ERC CERTIFICATES

1. ERC TO BE ISSUED TO: DIAMOND OF CALIFORNIA Facility ID: N - 285 (if known)

2. MAILING ADDRESS: Street/P.O. Box: P.O. BOX 1727

City: STOCKTON State: CA Zip Code: 95201

3. LOCATION OF REDUCTION:
Street: 1050 S. DIAMOND STREET

City: STOCKTON

/4 SECTION TOWNSHIP RANGE

4. DATE OF REDUCTION:

NOVEMBER 2005

5. PERMIT NO(S): N-285-34-1 EXISTING ERC NO(S):

6. METHOD RESULTING IN EMISSION REDUCTION:

[X] SHUTDOWN [ ] RETROFIT [ ] PROCESS CHANGE [ ] OTHER

DESCRIPTION: See attached application support document for details, including emission calculations.

(Use additional sheets if necessary)

7. REQUESTED ERCs (In Pounds Per Calendar Quarter):

	VOC	NOx	CO	PM10	SOx	OTHER
1ST QUARTER	1,906	13,562	35,179	450	2,803	
2ND QUARTER	1,258	8,938	23,223	294	1,850	
3RD QUARTER	1,913	14,069	35,321	556	2,814	
4TH QUARTER	1,941	13,838	35,834	464	2,855	

8. SIGNATURE OF APPLICANT:

TYPE OR PRINT TITLE OF APPLICANT:
VICE PRESIDENT OF OPERATIONS

9. TYPE OR PRINT NAME OF APPLICANT:
FRED JACOBUS

DATE: 5/9/2006

TELEPHONE NO:
(209) 461-7303

FOR APCD USE ONLY: OTC

RECEIVED
MAY 09 2006
SJVAPCD
SOUTHERN REGION

FILING FEE RECEIVED: $ 650.00 / 386390

DATE PAID: 5-9-06

PROJECT NO.: N 1061341 FACILITY ID.: N 0285

sierra research

Application to the San Joaquin Valley Unified Air Pollution Control District for Emission Reduction Credits for the Shutdown of the Cogeneration Boiler

Submitted by:

Diamond of California

May 2006

prepared by:

Sierra Research, Inc.
1801 J Street
Sacramento, California 95814
(916) 444-6666

APPLICATION TO THE
SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT

for

EMISSION REDUCTION CREDITS

for the

SHUTDOWN OF THE COGENERATION BOILER

at

DIAMOND OF CALIFORNIA
STOCKTON, CALIFORNIA

Submitted by:

Diamond of California
P.O. Box 1727
Stockton, California 95201

May 2006

Prepared by:

Sierra Research, Inc.
1801 J Street
Sacramento, California 95814
(916) 444-6666

SUMMARY

Diamond of California (Diamond) operates a food processing facility in Stockton, California. Diamond is shutting down and removing the walnut shell-fired cogeneration boiler at the facility. The shutdown of this boiler will reduce emissions of carbon monoxide (CO), nitrogen oxides (NOx), particulate matter less than 10 microns in diameter (PM_{10}), sulfur oxides (SOx), and volatile organic compounds (VOCs) from the facility. Diamond requests formal certification of the emission reductions from the cogeneration boiler shutdown as emission reduction credits in accordance with District Rule 2301.

APPLICATION TO THE
SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT
for
EMISSION REDUCTION CREDITS
for the
SHUTDOWN OF THE COGENERATION BOILER
at
DIAMOND OF CALIFORNIA
STOCKTON, CALIFORNIA

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SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT
for
EMISSION REDUCTION CREDITS
for the
SHUTDOWN OF THE COGENERATION BOILER
at
DIAMOND OF CALIFORNIA
STOCKTON, CALIFORNIA

I. PROJECT DESCRIPTION

A. Applicant's Name and Business Description

Name of Applicant:	Diamond of California (Diamond)
Mailing Address:	P.O. Box 1727 Stockton, California 95201-1727
Facility Address:	1050 South Diamond Street Stockton, California 95205
General Business:	Food Processing
Contact:	Fred Jacobus Vice President of Operations Diamond of California (209) 461-7303
Facility Operator:	Diamond of California
Consultants:	Sierra Research, Inc. 1801 J Street Sacramento, California 95814 Contact: Dan Welch (916) 444-6666

B. Type of Application

This is an application to the San Joaquin Valley Unified Air Pollution Control District (District) for emission reduction credits (ERCs) generated by the shutdown of the cogeneration boiler at the Diamond facility.

C. Purpose

Diamond shut down the walnut shell-fired cogeneration boiler at the facility in November 2005. The shutdown reduced emissions of carbon monoxide (CO), nitrogen oxides (NOx), particulate matter less than 10 microns in diameter (PM_{10}), sulfur oxides (SOx), and volatile organic compounds (VOC) from the facility. Diamond is seeking emission reduction credits for the shutdown.

D. Facility Description

The Diamond facility is bounded by Diamond Street, Charter Way, and the Burlington Northern Sante Fe railway in Stockton, as illustrated in Figure 1. The Diamond facility is a food processing plant that manufactures walnut and specialty nut products. The facility also contained a cogeneration plant that generated electricity for sale to the Pacific Gas & Electric Company and steam for use on-site, primarily in the refrigeration plant. The District identifies the Diamond facility as Facility #N-285.

The Diamond facility consists of fumigation operations; walnut handling, shelling, and chopping operations; walnut and specialty nut roasting, glazing, seasoning, and packaging operations; walnut oil processing operations; a cogeneration plant, and a backup boiler. The cogeneration plant, which was shutdown, consisted of a walnut shell-fired boiler to produce high pressure steam, a 4.5 MW steam turbine to generate electricity, a steam condenser, and a water treatment plant.

E. Equipment Description

The shutdown cogeneration boiler had a steam production capacity of 60,000 lb/hr. The cogeneration boiler was equipped with a baghouse to control particulate emissions. Table 1 summarizes design specifications for the cogeneration boiler. The cogeneration boiler was not subject to any substantive operating limits other than requirements that it be fired solely with walnut shells and that it not be fired simultaneously with the backup boiler. The cogeneration boiler was not subject to the requirements of Rule 4352 (Solid Fuel Fired Boilers, Steam Generators, and Process Heaters) because the Diamond facility was not a major NOx sources (i.e., a potential to emit 50 tpy of NOx). However, the District has proposed amendments to Rule 4352 that would have affected the cogeneration boiler.

Figure 1
Location of the Diamond Stockton Facility

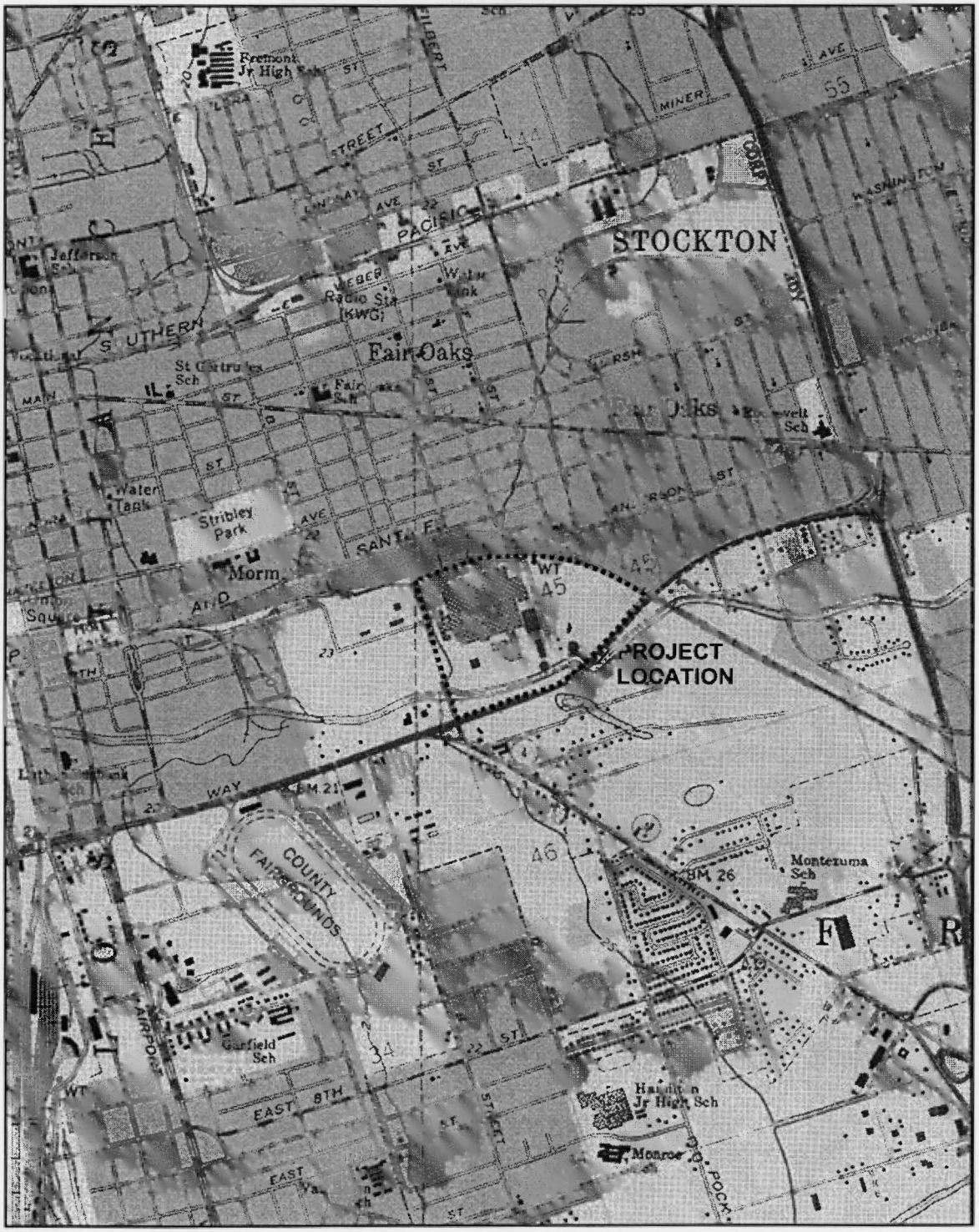

Table 1 Design Specifications for the Cogeneration Boiler	
Steam Output	60,000 lb/hr
Fuel	Walnut Shells
Heat Content	7,653 Btu/lb[1]
Fuel Consumption Rate	9,440 lb/hr[2]
Heat Input Rate	72.2 MMBtu/hr[3]
Emission Controls	Baghouse

Notes:
[1] Based upon the average of three samples collected in September, October, and November of 2003 and analyzed by Hazen Research.
[2] Obtained from District engineering evaluation for Project # 1041192, which cited Diamond's original permit application.
[3] Calculated from the heat content and fuel consumption rate.

F. Actual Operations

District Rule 2301 (Emission Reduction Credit Banking) provides the mechanisms through which emission reductions can be converted into ERCs. Rule 2301 requires that actual emission reductions be calculated pursuant to Rule 2201 (New and Modified Stationary Source Review, or NSR). For a shutdown, Rule 2201 specifies that the actual emission reduction be calculated as the historic actual emissions. The District defines "historic actual emissions" as actual emissions from the baseline period, adjusted to reflect emission reductions required by existing or proposed rules. The District further defines the "baseline period" as the two consecutive years of operation immediately prior to the submission of the ERC application, or any two consecutive years within the five years immediately prior to the submission of the ERC application if the District deems that two-year period to be more representative of normal operation. Since Diamond shutdown the cogeneration boiler in November 2005, the period from 2001 through 2005 was reviewed to identify the baseline that was most representative of actual operations at Diamond.

2005 was not representative of actual operations since Diamond shutdown the cogeneration boiler in November. Also, the cogeneration boiler was not operated for an entire month in 2002 and again in 2004. There is no two-year period within the past five years without at least one month of non-operation. The years 2001 and 2002 were selected as the baseline period for the calculation of historic actual emissions because during this two-year period fuel consumption most closely approximated the average fuel consumption for the four calendar years prior to 2005 (which was not a representative year due to permanent equipment shutdown in November). Fuel consumption (in MMBtu) was calculated from the monthly fuel consumption (in tons) and a walnut shell heat content of 7,653 Btu/lb, which reflects the average of three walnut shell samples

collected and analyzed in September, October, and November 2003. Monthly fuel consumption (in tons) was estimated from the annual fuel consumption obtained from the District Annual Emission Statements and from monthly gross power generation obtained from Diamond's Form CEC-1304, Schedule 2, Part A submitted annually to the California Energy Commission, as follows:

$$M_{shell,\,i} = M_{shell} * GPG_i / GPG$$

Where:
$M_{shell,\,i}$ = Monthly shell consumption, in tons
M_{shell} = Annual shell consumption, in tons
GPG_i = Monthly gross power generation, in MW-hr
GPG = Annual gross power generation, in MW-hr

Actual fuel consumption is summarized in Table 2. Monthly fuel consumption and power generation data are presented in Appendix A. The emissions assessment is presented in Part II.

Table 2
Historic Actual Fuel Consumption

Year	Fuel Consumption (MMBtu)			
	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr
2001	138,241	89,218	199,516	143,939
2002	110,885	75,237	50,614	109,822
Average	124,563	82,227	125,065	126,881

Notes: [1] Calculated from monthly fuel consumption (in tons) and a heat content 7,653 Btu/lb.

II. EMISSION ASSESSMENT

The cogeneration boiler emitted criteria pollutants including CO, NOx, PM_{10}, SOx, and VOCs. This chapter presents the historic actual emissions from the cogeneration boiler. Appendix B contains tables presenting detailed emission calculations.

Actual quarterly emissions of NOx and PM_{10} for 2001 and 2002 were calculated separately from emission factors (in lb/MMBtu) and the actual quarterly fuel consumption (in MMBtu/quarter). Emission factors were derived from annual source tests of the cogeneration boiler using the measured concentration (in ppmv @ 3% O_2 for NOx and gr/dscf @ 12% CO_2 for PM) and USEPA wood fuel F-factors (9,240 scf/MMBtu @ 0% O_2 and 1,830 scf CO_2/MMBtu). Since Diamond performs source tests annually, actual emissions were calculated separately for each year using the appropriate source test. The NOx emission factor was not further adjusted because the cogeneration boiler already complied with the proposed NOx limit of 0.15 lb/MMBtu in the proposed amendments to Rule 4352 (Solid Fuel Fired Boilers, Steam Generators, and Process Heaters). Diamond measures PM during the annual source test. PM emissions were assumed to comprise 100% PM_{10} because the cogeneration boiler is equipped with a baghouse to control PM. The quarterly fuel consumption rates were presented previously in Table 2. Actual NOx and PM_{10} emissions from the cogeneration boiler for 2001 and 2002 are summarized in Table 3.

Table 3
Actual Emissions from the Cogeneration Boiler

Pollutant	Year	Emission Factor[1] (lb/MMBtu)	Actual Emissions (lb/quarter)				
			1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Totals
NOx	2001	0.128[1]	17,746	11,453	25,612	18,477	73,288
	2002	0.112[1]	12,387	8,405	5,654	12,268	38,713
	Average	N/A	15,066	9,929	15,633	15,373	56,001
PM_{10}	2001	0.0057[1]	783	505	1,130	815	3,234
	2002	0.0020[1]	217	148	99	215	680
	Average	N/A	500	326	615	515	1,957

Notes: [1] Derived from annual source tests.

Historic actual quarterly emissions of CO, SOx, and VOC were calculated from emission factors (in lb/MMBtu) and the historical actual quarterly fuel consumption (in MMBtu/quarter). The CO emission factor reflects an exhaust concentration of 400 ppmv at 3% O_2, pursuant to the proposed amendments to Rule 4352, and was calculated using the USEPA wood fuel F-factor of 9,240 scf/MMBtu at 0% O_2. Diamond performed a CO source test on the cogeneration boiler in 2003; the measured CO concentration was 5,703

ppmv @ 3% O_2. Therefore, the lower CO limit of the proposed amendments to Rule 4352 was used in this ERC analysis. The PM_{10} and VOC emission factors were obtained from Tables 1.6-2 and 1.6-3 of AP-42, respectively. The historic average quarterly fuel consumption rates were presented previously in Table 2. Historic actual emissions from the cogeneration boiler are summarized in Table 4. The historic actual emissions of NOx and PM_{10} are the average of the actual emissions for 2001 and 2002, as presented previously in Table 3.

Table 4
Historic Actual Emissions from the Cogeneration Boiler

Pollutant	Emission Factor (lb/MMBtu)	Historic Actual Emissions (lb/quarter)				
		1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Totals
CO	0.313[1]	39,049	25,778	39,207	39,776	143,810
NOx	See Table 3	15,066	9,929	15,633	15,373	56,001
PM_{10}	See Table 3	500	326	615	515	1,957
SOx	0.025[2]	3,114	2,056	3,127	3,172	11,468
VOC	0.017[3]	2,118	1,398	2,126	2,157	7,799

Notes:
[1] Reflects an exhaust concentration of 400 ppmv at 3% O2, pursuant to the proposed amendments to Rule 4352, and an F-factor of 9,240 scf/MMBtu at 0% O_2.
[2] Obtained from Table 1.6-2 of AP-42 for wood residue combustion.
[3] Obtained from Table 1.6-3 of AP-42 for wood residue combustion.

III. EMISSION REDUCTION CREDIT DETERMINATION

This chapter presents the ERC determination, including the ERC calculation and an analysis of ERC eligibility criteria. Appendix B contains tables presenting detailed ERC calculations.

A. Emission Reduction Credit Adjustments

Rule 2201 further requires that the District, before granting ERC certifications, apply a ten percent "air quality improvement adjustment" to the emission reduction to fund its community bank. The 10% air quality improvement adjustments associated with the shutdown of the cogeneration boiler are summarized in Table 5.

Table 5
Air Quality Improvement Adjustment[1]

Pollutant	Emission Reduction Credits (lb/quarter)				
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Totals
CO	3,905	2,578	3,921	3,978	14,381
NOx	1,507	993	1,563	1,537	5,600
PM_{10}	50	33	62	52	196
SOx	311	206	313	317	1,147
VOC	212	140	213	216	780

Notes: [1] Reflects a 10% adjustment to the historic actual emissions, shown previously in Table 4.

B. Emission Reduction Credit Eligibility Criteria

Rule 2301 requires that emission reductions be real, surplus, enforceable, and quantifiable. The shutdown of the cogeneration meets these criteria as follows:

- The proposed emission reductions will be real because Diamond has shutdown the cogeneration boiler.

- The proposed emission reductions are surplus because the cogeneration boiler complies with the NOx and PM emission limits contained in the Permit to Operate. The cogeneration boiler also complies with the NOx limit of 0.15 lb/MMBtu in the proposed amendments to Rule 4352. The historic actual CO emissions were adjusted to reflect the CO limit of 400 ppmv @ 3% O_2 in the proposed amendments to Rule 4352.

- The proposed emission reductions will be enforceable because Diamond will surrender the Permit to Operate for the cogeneration boiler prior to the issuance of the ERCs.

- The proposed emission reductions are quantifiable because the emission reductions were calculated from actual fuel consumption. Furthermore, emission factors for CO, NOx, and PM_{10} were obtained from source tests of the cogeneration boiler.

C. Conclusions

The ERC yields from the shutdown of the cogeneration boiler are summarized in Table 6.

Table 6
ERC Yields from the Cogeneration Boiler Shutdown

	Emission Reduction Credits (lb/quarter)				
Pollutant	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Totals
CO	35,145	23,200	35,286	35,798	129,429
NOx	13,560	8,936	14,070	13,835	50,401
PM_{10}	450	294	553	464	1,761
SOx	2,803	1,850	2,814	2,855	10,322
VOC	1,906	1,258	1,913	1,941	7,019

Appendix A

Historic Actual Fuel Consumption

DIAMOND OF CALIFORNIA
COGENERATION BOILER EMISSION REDUCTION CREDIT APPLICATION

ACTUAL MONTHLY OPERATIONS

Month	Net Power Generation (MW-hr)					Gross Power Generation (MW-hr)				
	2001	2002	2003	2004	2005	2001	2002	2003	2004	2005
January	1,578	2,216	2,519	2,221	0	1,767	2,482	2,856	2,523	0
February	1,987	2,096	2,255	1,545	1,491	2,225	2,348	2,552	1,755	1,683
March	2,209	1,839	2,496	2,095	2,269	2,474	2,060	2,820	2,379	2,562
April	780	822	880	1,608	1,513	874	921	1,012	1,826	1,708
May	428	1,703	2,320	1,838	1,606	479	1,907	2,668	2,088	1,813
June	2,518	1,649	2,431	2,001	2,430	2,820	1,847	2,743	2,273	2,744
July	2,616	1,381	2,431	2,370	1,777	2,930	1,547	2,767	2,692	2,006
August	2,937	0	2,496	1,972	899	3,289	0	2,867	2,240	1,015
September	2,780	1,427	2,019	226	1,796	3,113	1,598	2,331	257	2,028
October	2,250	2,205	1,760	0	1,434	2,520	2,470	2,030	0	1,619
November	1,032	1,953	792	2,015	431	1,156	2,187	876	2,289	487
December	2,729	1,935	1,950	467	0	3,057	2,167	2,238	530	0
TOTALS	23,844	19,226	24,349	18,358	15,646	26,704	21,534	27,760	20,850	17,665
										0.8857

Month	Fuel Consumption (tons)					Fuel Consumption (MMBtu)				
	2001	2002	2003	2004	2005	2001	2002	2003	2004	2005
January	2,468	2,610	2,886	3,238	0	37,778	39,944	44,174	49,559	0
February	3,108	2,469	2,579	2,252	1,995	47,570	37,788	39,472	34,475	30,531
March	3,456	2,166	2,850	3,054	3,036	52,893	33,153	43,617	46,747	46,463
April	1,221	968	1,023	2,344	2,024	18,686	14,822	15,653	35,880	30,982
May	669	2,005	2,696	2,680	2,149	10,241	30,690	41,266	41,013	32,886
June	3,939	1,942	2,772	2,917	3,251	60,291	29,725	42,426	44,650	49,760
July	4,093	1,627	2,796	3,455	2,377	62,643	24,897	42,797	52,883	36,388
August	4,594	0	2,897	2,875	1,203	70,318	0	44,344	44,003	18,409
September	4,348	1,680	2,356	329	2,403	66,555	25,717	36,054	5,043	36,777
October	3,520	2,597	2,051	0	1,918	53,877	39,751	31,398	0	29,364
November	1,615	2,300	885	2,938	577	24,715	35,197	13,549	44,962	8,826
December	4,269	2,278	2,262	681	0	65,347	34,875	34,615	10,420	0
TOTALS	37,300	22,642	28,052	26,763	20,932	570,914	346,558	429,364	409,634	320,386

Notes:

Monthly net and gross power generation (2001 - 2004) obtained from Diamond's Form CEC-1304, Schedule 2, Part A.
January 2005 - June 2005 net power generation obtained from monthly PG&E Meter Reports.
July 2005 - November 2005 net power generation obtained from daily Diamond Power Plant Output Reports.
Monthly 2005 gross power generation calculated from monthly net power generation at 0.8857 net MW-hr per gross MW-hr (2001-2004 average).
Annual fuel consumption (2001 - 20004, in tons) obtained from SMAQMD's Annual Emission Statement.
2005 fuel consumption (in tons) calculated from monthly gross power generation at 1.185 tons per gross MW-hr (2001-2004 average).
Monthly fuel consumption (in tons) calculated from monthly gross power generation as a fraction of annual gross power generation.
Monthly fuel consumption (in MMBtu) calculated from the monthly fuel comsumption (in tons) at 7653 Btu/lb of shells (average of three samples collected in Sep/Oct/Nov 2003).

DIAMOND OF CALIFORNIA
COGENERATION BOILER EMISSION REDUCTION CREDIT APPLICATION

ACTUAL QUARTERLY OPERATIONS

	Net Power Generation (MW-hr)					Gross Power Generation (MW-hr)				
Quarter	2001	2002	2003	2004	2005	2001	2002	2003	2004	2005
1st	5,774	6,151	7,270	5,861	3,760	6,466	6,890	8,228	6,657	4,245
2nd	3,726	4,174	5,631	5,447	5,549	4,173	4,675	6,423	6,187	6,265
3rd	8,333	2,808	6,946	4,568	4,472	9,332	3,145	7,965	5,188	5,049
4th	6,011	6,093	4,502	2,482	1,865	6,733	6,824	5,144	2,819	2,106
TOTALS	23,844	19,226	24,349	18,358	15,646	26,704	21,534	27,760	20,850	17,665

	Fuel Consumption (tons)					Fuel Consumption (MMBtu)				
Quarter	2001	2002	2003	2004	2005	2001	2002	2003	2004	2005
1st	9,032	7,245	8,315	8,544	5,030	138,241	110,885	127,262	130,780	76,994
2nd	5,829	4,916	6,491	7,941	7,424	89,218	75,237	99,345	121,543	113,628
3rd	13,035	3,307	8,049	6,659	5,983	199,516	50,614	123,195	101,929	91,574
4th	9,404	7,175	5,198	3,618	2,495	143,939	109,822	79,562	55,383	38,190
TOTALS	37,300	22,642	28,052	26,763	20,932	570,914	346,558	429,364	409,634	320,386
2-YEAR AVERAGE							458,736	387,961	419,499	365,010
4-YEAR AVERAGE									439,118	

Notes:
Four-year average is used rather than a five-year average because 2005 is not a representative year since the cogeneration boiler was shutdown in November 2005.

2004

Emission Statement - Calendar Year ~~2005~~ Emissions

Date / Time Printed 12/29/2005 / 10:04:13 AM

Please Sign and Return to:
San Joaquin Valley Unified APCD
1990 East Gettysburg Avenue
Fresno, CA 93726

Facility ID # N - 285
TAD # 39 - 285
SIC # 723
Facility Name DIAMOND WALNUT GROWERS, INC.
TOXID # 20387
Planning Inventory
Update SUmmary ☑

UTM Zone : 10
UTM East: 653.4
UTM North: 4201.4

CHECK BOX IF PROCESS RATES ARE CONFIDENTIAL : N

Device ID #	Process Number	Equipment Type	Yearly Process Rate	Units / Source Classification Code	NOX Lb / Unit	VOC Lb / Unit	SOX Lb / Unit	CO Lb / Unit	PM10 Lb / Unit	
1	1	BULK STORAGE ATMOSPHERIC FUMIGATION	3.09	TONS PRODUCED (FINISHED)	.0	.0	.0	.0	.0	
				30299999	.0	.0	.0	.0	.0	(Tons/Yr)
30	1	20 MMBTU/HR BOILER	43.4	MILLION CUBIC FEET BURNED	140.0	2.78	.6	35.0	13.7	
				10300602	3.04	.06	.01	.76	.3	(Tons/Yr)
31	1	WALNUT WASTE PROCESSING	62045	TONS PROCESSED (INPUT)	.0	.0	.0	.0	.0	
				30299998	.0	.0	.0	.0	.12	(Tons/Yr)
32	1	NIECO VACUUM FUMIGATION	10.25		.0	.0	.0	.0	.0	
				30300000	.0	.0	.0	.0	.0	(Tons/Yr)
34	1	COGENERATION-WALNUT SHELLS	26763	TONS BURNED	1.85	.0	1.5	2.0	.0	
				10101202	24.76	.0	20.07	26.76	.0	(Tons/Yr)
36	1	WALNUT SIZING SYSTEM-DELETED	0	TONS PROCESSED (INPUT)	.0	.0	.0	.0	.0	
				30299998	.0	.0	.0	.0	.0	(Tons/Yr)
42	1	POLYGON ATMOSPHERIC FUMIGATION	0.1		.0	.0	.0	.0	.0	
				30300000	.0	.0	.0	.0	.0	(Tons/Yr)
45	1	PPO STERILIZATION	34.77		.0	.0	.0	.0	.0	
				30300000	.0	.0	.0	.0	.0	(Tons/Yr)
49	1	BUTLER ATMOSPHERIC FUMIGATION	0.1675		.0	.0	.0	.0	.0	
				30300000	.0	.0	.0	.0	.0	(Tons/Yr)
67	1	BULK STORAGE ATMOSPHERIC FUMIGATION	3.29		.0	.0	.0	.0	.0	
				30300000	.0	.0	.0	.0	.0	(Tons/Yr)
67	2	ATMOSPHERIC FUMIGATION HEATER	0.7		140.0	2.8	.6	.0	.0	
				30290004	.05	.0	.0	.0	.0	(Tons/Yr)
69	1	BLEACH PLANT VACUUM	4.57		.0	.0	.0	.0	.0	
				30300000	.0	.0	.0	.0	.0	(Tons/Yr)
69	2	BLEACH ROOM	31000000	TONS PROCESSED (INPUT)	.0	.0	.0	.0	.0	
				30299998	.0	.0	.0	.0	.0	(Tons/Yr)
69	3	BLEACH SUPPLY TANK	188	TONS PROCESSED (INPUT)	.0	.0	.0	.0	.0	
				30299998	.0	.0	.0	.0	.0	(Tons/Yr)
77	1	WALNUT DESTONING	112500	TONS PROCESSED (INPUT)	.0	.0	.0	.0	.0	
				30299998	.0	.0	.0	.0	.0	(Tons/Yr)
100	1	600 HP IC ENGINE - DIESEL - CUMMINS	0.87	1000 GALLONS BURNED	469.0	32.1	31.2	102.0	.0	
				20200102	.2	.01	.01	.04	.0	(Tons/Yr)

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2004

Emission Statement - Calendar Year ~~2005~~ Emissions

Date / Time Printed 12/29/2005 / 10:04:13 AM

Please Sign and Return to:
San Joaquin Valley Unified APCD
1990 East Gettysburg Avenue
Fresno, CA 93726

Facility ID # N - 285
TAD # 39 - 285
SIC # 723
Facility Name DIAMOND WALNUT GROWERS, INC.
TOXID # 20387
Planning Inventory
Update SUmmary ☑

UTM Zone : 10
UTM East: 653.4
UTM North: 4201.4

CHECK BOX IF PROCESS RATES ARE CONFIDENTIAL : N

Device ID #	Process Number	Equipment Type	Yearly Process Rate	Units / Source Classification Code	NOX Lb / Unit	VOC Lb / Unit	SOX Lb / Unit	CO Lb / Unit	PM10 Lb / Unit	
1	1	BULK STORAGE ATMOSPHERIC FUMIGATION	3.09	TONS PRODUCED (FINISHED)	.0	.0	.0	.0	.0	
				30299999	.0	.0	.0	.0	.0	(Tons/Yr)
30	1	20 MMBTU/HR BOILER	43.4	MILLION CUBIC FEET BURNED	140.0	2.78	.6	35.0	13.7	
				10300602	3.04	.06	.01	.76	.3	(Tons/Yr)
31	1	WALNUT WASTE PROCESSING	62045	TONS PROCESSED (INPUT)	.0	.0	.0	.0	.0	
				30299998	.0	.0	.0	.0	.12	(Tons/Yr)
32	1	NIECO VACUUM FUMIGATION	10.25		.0	.0	.0	.0	.0	
				30300000	.0	.0	.0	.0	.0	(Tons/Yr)
34	1	COGENERATION-WALNUT SHELLS	26763	TONS BURNED	1.85	.0	1.5	2.0	.0	
				10101202	24.76	.0	20.07	26.76	.0	(Tons/Yr)
36	1	WALNUT SIZING SYSTEM-DELETED	0	TONS PROCESSED (INPUT)	.0	.0	.0	.0	.0	
				30299998	.0	.0	.0	.0	.0	(Tons/Yr)
42	1	POLYGON ATMOSPHERIC FUMIGATION	0.1		.0	.0	.0	.0	.0	
				30300000	.0	.0	.0	.0	.0	(Tons/Yr)
45	1	PPO STERILIZATION	34.77		.0	.0	.0	.0	.0	
				30300000	.0	.0	.0	.0	.0	(Tons/Yr)
49	1	BUTLER ATMOSPHERIC FUMIGATION	0.1675		.0	.0	.0	.0	.0	
				30300000	.0	.0	.0	.0	.0	(Tons/Yr)
67	1	BULK STORAGE ATMOSPHERIC FUMIGATION	3.29		.0	.0	.0	.0	.0	
				30300000	.0	.0	.0	.0	.0	(Tons/Yr)
67	2	ATMOSPHERIC FUMIGATION HEATER	0.7		140.0	2.8	.6	.0	.0	
				30290004	.05	.0	.0	.0	.0	(Tons/Yr)
69	1	BLEACH PLANT VACUUM	4.57		.0	.0	.0	.0	.0	
				30300000	.0	.0	.0	.0	.0	(Tons/Yr)
69	2	BLEACH ROOM	31000000	TONS PROCESSED (INPUT)	.0	.0	.0	.0	.0	
				30299998	.0	.0	.0	.0	.0	(Tons/Yr)
69	3	BLEACH SUPPLY TANK	188	TONS PROCESSED (INPUT)	.0	.0	.0	.0	.0	
				30299998	.0	.0	.0	.0	.0	(Tons/Yr)
77	1	WALNUT DESTONING	112500	TONS PROCESSED (INPUT)	.0	.0	.0	.0	.0	
				30299998	.0	.0	.0	.0	.0	(Tons/Yr)
100	1	600 HP IC ENGINE - DIESEL - CUMMINS	0.87	1000 GALLONS BURNED	469.0	32.1	31.2	102.0	.0	
				20200102	.2	.01	.01	.04	.0	(Tons/Yr)

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Date / Time Printed 3/28/2003 4:59:11 PM

UTM Zone : 10
UTM East: 653.4
UTM North: 4201.4

Emission Statement - Calendar Year 2002 Emissions

Please Sign and Return to:
San Joaquin Valley Unified APCD
1990 East Gettysburg Avenue
Fresno, CA 93726

Facility ID # N - 285
TAD # 39 - 285
SIC 723
Facility Name DIAMOND WALNUT GROWERS, INC.
TOXID # 20387

CHECK BOX IF PROCESS RATES ARE CONFIDENTIAL : N

Device ID #	Process Number	Equipment Type	Yearly Process Rate	Units / Source Classification Code	NOX Lb / Unit	TOG Lb / Unit	Fraction of ROG	VOC Lb / Unit	SOX # / Unit	CO # / Unit	PM # / Unit	Fraction of PM10	PM10 Lb / Unit	
1	1	ATMOSPHERIC FUMIGATION	1.62	TONS PRODUCED (FINISHED)	.0	2000.0	.7 C	.0	.0	.0	.0	.0	.0	
				30299999	.0	1.62	1.13	.0	.0	.0	.0	.0	.0	(Tons/Yr)
30	1	PROCESS BOILER-NATURAL GAS	54.2	MILLION CUBIC FEET BURNED	140.0	5.8	.42 C	.0	.6	35.0	5.0		.0	
				10300602	3.79	.16	.07	.0	.02	.95	.14	.0	.0	(Tons/Yr)
31	1	WALNUT WASTE PROCESSING	57780	TONS PROCESSED (INPUT)	.0	.0	.0 F	.0	.0	.0	.48		.0	
				30299998	.0	.0	.0	.0	.0	.0	13.87	.0	.0	(Tons/Yr)
32	1	NIECO VACUUM FUMIGATION	8.3	TONS PRODUCED (FINISHED)	.0	2000.0	.7 C	.0	.0	.0	.0	.0	.0	
				30299999	.0	8.3	.58	.0	.0	.0	.0	.0	.0	(Tons/Yr)
34	1	COGENERATION-WALNUT SHELLS	22642	TONS BURNED	1.85	2.0	.7 C	.0	.15	2.0	.4		.0	
				10101202	20.94	22.64	15.82	.0	1.7	22.64	4.53	.0	.0	(Tons/Yr)
36	1	WALNUT SIZING SYSTEM-deleted	0	TONS PROCESSED (INPUT)	.0	.0	.0 F	.0	.0	.0	.0	.0	.0	
				30299998	.0	.0	.0	.0	.0	.0	.0	.0	.0	(Tons/Yr)
42	1	POLYGON ATMOS. FUMIGATION	0	TONS PRODUCED (FINISHED)	.0	.0	.0 F	.0	.0	.0	.0	.0	.0	
				30299999	.0	.0	.0	.0	.0	.0	.0	.0	.0	(Tons/Yr)
45	1	FUMIGATION CHAMBERS	21.78	TONS PRODUCED (FINISHED)	.0	2000.0	.7 C	.0	.0	.0	.0	.0	.0	
				30299999	.0	21.78	15.22	.0	.0	.0	.0	.0	.0	(Tons/Yr)
49	1	BUTLER ATMOSPHERIC FUMIGATION	0	TONS PRODUCED (FINISHED)	.0	2000.0	.7 C	.0	.0	.0	.0	.0	.0	
				30299999	.0	.0	.0	.0	.0	.0	.0	.0	.0	(Tons/Yr)
67	1	BULK STORAGE ATMOSPHERIC FUMIGATION	1.87	TONS PRODUCED (FINISHED)	.0	2000.0	.7 C	.0	.0	.0	.0	.0	.0	
				30299999	.0	1.87	1.31	.0	.0	.0	.0	.0	.0	(Tons/Yr)
69	1	BLEACH PLANT VACUUM	1.92	TONS PRODUCED (FINISHED)	.0	2000.0	.7 C	.0	.0	.0	.0	.0	.0	
				30299999	.0	1.92	1.34	.0	.0	.0	.0	.0	.0	(Tons/Yr)
77	1	WALNUT DESTONING	107000	TONS PROCESSED (INPUT)	.0	.0	.0 F	.0	.0	.0	.0		.0	
				30299998	.0	.0	.0	.0	.0	.0	.31	.0	.0	(Tons/Yr)
430	1	WALNUT RECEIVING	126000	TONS PRODUCED (FINISHED)	.0	.0	.0 F	.0	.0	.0	.12		.0	
				30299999	.0	.0	.0	.0	.0	.0	7.56	.0	.0	(Tons/Yr)

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JTM Zone : 10
JTM East: 653.4
JTM North: 4201.4

Emission Statement - Calendar Year 2001 Emissions

Please Sign and Return to:
San Joaquin Valley Unified APCD
1990 East Gettysburg Avenue
Fresno, CA 93726

Facility ID # N - 285
TAD # 39 - 285
SIC 723
Facility Name DIAMOND WALNUT GROWERS, INC.
TOXID # 20387

CHECK BOX IF PROCESS RATES ARE CONFIDENTIAL : N

vice) #	Process Number	Equipment Type	Rating	Yearly Process Rate	Units / Source Classification Code	Wk / Yr	Control Device	NOX # / Unit	TOG # / Unit	Fraction Reactive Organic Gas	SOX # / Unit	CO # / Unit	PM # / Unit	Fraction PM10	
1	1	ATMOSPHERIC FUMIGATION		1.6	TONS PRODUCED (FINISHED)	52		.0	2000.0	1.0 F	.0	.0	.0	.0	
					30299999			.0	1.6	1.6	.0	.0	.0	.0	EMSSIONS
30	1	PROCESS BOILER-GAS	20	34.68	MILLION CUBIC FEET BURNED	4		140.0	5.8	.39 F	.6	35.0	5.0	.39	
					10300602			2.43	.1	.04	.01	.61	.09	.03	EMSSIONS
31	1	WALNUT WASTE PROCESSING		53491	TONS PROCESSED (INPUT)	44		.0	.0	.0 F	.0	.0	.48	.69	
					30299998			.0	.0	.0	.0	.0	12.84	8.86	EMSSIONS
32	1	NIECO VACUUM FUMIGATION CHAMBER DOCK 1		7.8	TONS PRODUCED (FINISHED)	52		.0	2000.0	1.0 F	.0	.0	.0	.0	
					30299999			.0	7.8	7.8	.0	.0	.0	.0	EMSSIONS
34	1	COGENERATION-WALNUT SHELLS		37300	TONS BURNED	48		1.85	2.0	.7 C	.15	2.0	.4		
					10101202			34.5	37.3	26.06	2.8	37.3	7.46		EMSSIONS
36	1	WALNUT SIZING SYSTEM-deleted		0	TONS PROCESSED (INPUT)	48		.0	.0	.0 F	.0	.0	.0	.69	
					30299998			.0	.0	.0	.0	.0	.0	.0	EMSSIONS
42	1	POLYGON ATMOS. FUMIGATION CHAMBERS		0	TONS PRODUCED (FINISHED)	12		.0	2000.0	1.0 F	.0	.0	.0	.0	
					30299999			.0	.0	.0	.0	.0	.0	.0	EMSSIONS
45	1	VACUDYNE FUMIGATION CHAMBERS		26.3	TONS PRODUCED (FINISHED)	50		.0	2000.0	1.0 F	.0	.0	.0	.0	
					30299999			.0	26.3	26.3	.0	.0	.0	.0	EMSSIONS
49	1	BUTLER ATMOSPHERIC FUMIGATION		1.3	TONS PRODUCED (FINISHED)	20		.0	2000.0	1.0 F	.0	.0	.0	.0	
					30299999			.0	1.3	1.3	.0	.0	.0	.0	EMSSIONS
67	1	BULK STORAGE ATMOSPHERIC FUMIGATION		4.6	TONS PRODUCED (FINISHED)	50		.0	2000.0	1.0 F	.0	.0	.0	.0	
					30299999			.0	4.6	4.6	.0	.0	.0	.0	EMSSIONS
69	1	BLEACH PLANT VACUUM FUMIGATION		2.2	TONS PRODUCED (FINISHED)	12		.0	2000.0	1.0 F	.0	.0	.0	.0	
					30299999			.0	2.2	2.2	.0	.0	.0	.0	EMSSIONS
77	1	WALNUT DESTONING		24000	TONS PROCESSED (INPUT)	44		.0	.0	.0 F	.0	.0	.0	.69	
					30299998			.0	.0	.0	.0	.0	.05	.03	EMSSIONS
430	1	WALNUT RECEIVING		140000	TONS PRODUCED (FINISHED)	12		.0	.0	.0 F	.0	.0	.12	.69	
					30299999			.0	.0	.0	.0	.0	8.4	5.8	EMSSIONS

This data was taken from last year's emissions inventory data. Please make any correction to this document in red ink.

Hazen Research, Inc.
4601 Indiana St.
Golden, CO 80403 USA
Tel: (303) 279-4501
Fax: (303) 278-1528

DATE Sept. 16, 2003
PROJ. # 002-EQ1
CTRL # H344/03
REC'D 08/28/03

Diamond of California
Jeff Belwood
PO Box 1727
Stockton, CA 95201-1727

Control Number	Sample Identification	As Received Moisture, %	As Received BTU/lb	Dry Basis BTU/lb
H344/03-1	Ground Walnut Shell	10.82	7603	8525

By:

Gerard H. Cunningham
Fuel Laboratory Manager

Note: BTU/lb value is not sulfur corrected.

Hazen Research, Inc.
4601 Indiana St.
Golden, CO 80403 USA
Tel: (303) 279-4501
Fax: (303) 278-1528

DATE Oct. 6, 2003
PROJ. # 002-FB2
CTRL # I314/03
REC'D 10/01/03

Diamond of California
Jeff Belwood
PO Box 1727
Stockton, CA 95201-1727

Control Number	Sample Identification	As Received Moisture, %	As Received BTU/lb	Dry Basis BTU/lb
I314/03-1	Ground Walnut Shell	8.16	7947	8653

By:

Gerard H. Cunningham
Fuel Laboratory Manager

Note: BTU/lb value is not sulfur corrected.

Hazen Research, Inc.
4601 Indiana St.
Golden, CO 80403 USA
Tel: (303) 279-4501
Fax: (303) 278-1528

DATE Nov. 20, 2003
PROJ. # 002-FQ5
CTRL # K129/03
REC'D 11/17/03

Diamond of California
Jeff Belwood
PO Box 1727
Stockton, CA 95201-1727

Control Number	Sample Identification	As Received Moisture, %	As Received BTU/lb	Dry Basis BTU/lb
K129/03-1	Walnut Shells	14.63	7409	8679

By:

Gerard H. Cunningham
Fuel Laboratory Manager

Note: BTU/lb value is not sulfur corrected.

Appendix B

Emissions Calculations

DIAMOND OF CALIFORNIA
COGENERATION BOILER EMISSION REDUCTION CREDIT APPLICATION

HISTORIC ACTUAL EMISSIONS

Parameter		2001 Actual Fuel Consumption (MMBtu)				
Device	Boiler	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Totals
Steam Output (lb/hr)	60,000	138,241	89,218	199,516	143,939	570,914
Fuel	Walnut Shells	2002 Actual Fuel Consumption (MMBtu)				
Fuel Consumption Rate (lb/hr)	9,440	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Totals
Higher Heating Value (Btu/lb)	7,653	110,885	75,237	50,614	109,822	346,558
Heat Input Rate (MMBtu/hr)	72.2					

2001 ACTUAL EMISSIONS

Pollutant	Emissions Factors (lb/MMBtu)	Actual Emissions (lb)				
		1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Totals
CO	0.313	43,338	27,969	62,547	45,124	178,977
NOx	0.128	17,746	11,453	25,612	18,477	73,288
PM10	0.0057	783	505	1,130	815	3,234
SOx	0.025	3,456	2,230	4,988	3,598	14,273
VOC	0.017	2,350	1,517	3,392	2,447	9,706

2002 ACTUAL EMISSIONS

Pollutant	Emissions Factors (lb/MMBtu)	Actual Emissions (lb)				
		1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Totals
CO	0.313	34,761	23,586	15,867	34,428	108,643
NOx	0.112	12,387	8,405	5,654	12,268	38,713
PM10	0.0020	217	148	99	215	680
SOx	0.025	2,772	1,881	1,265	2,746	8,664
VOC	0.017	1,885	1,279	860	1,867	5,891

HISTORIC ACTUAL EMISSIONS, 2001-2002

Pollutant	Historic Actual Emissions (lb)				
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Totals
CO	39,049	25,778	39,207	39,776	143,810
NOx	15,066	9,929	15,633	15,373	56,001
PM10	500	326	615	515	1,957
SOx	3,114	2,056	3,127	3,172	11,468
VOC	2,118	1,398	2,126	2,157	7,799

Notes

Boiler steam output (in lb/hr) obtained from the Title V Permit.

Fuel consumption rate (in lb/hr) was specifiied in the initial permit application (per the District).

Heat content (in Btu/lb) reflects the average of three samples collected in 2003 and analzyed by Hazen Research.

Heat input rate was calcualated from the fuel consumption rate (in tons) and the heating content (in Btu/lb).

2001-2002 was selected as the baseline period because the two-year average fuel consumption rate most closely approximated the four year average (2001-2004).

CO emission factor (in lb/MMBtu) reflects the CO limit of 400 ppm @ 3% O2 limit in the proposed amendments to Rule 4352.

NOx and PM10 emission factors (in lb/MMBtu) were derived from annual source tests. PM was assumed to be 100% PM10.

SOx and VOC emission factors (in lb/MMBtu) were obtained from Tables 1.6-2 and 1.6-3 of AP-42.

DIAMOND OF CALIFORNIA
COGENERATION BOILER EMISSION REDUCTION CREDIT APPLICATION

HISTORIC ACTUAL EMISSIONS

	Historic Actual Quarterly Emissions (lb)				
Pollutant	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Totals
CO	39,049	25,778	39,207	39,776	143,810
NOx	15,066	9,929	15,633	15,373	56,001
PM10	500	326	615	515	1,957
SOx	3,114	2,056	3,127	3,172	11,468
VOC	2,118	1,398	2,126	2,157	7,799

AIR QUALITY IMPROVEMENT DEDUCTION

	Emission Reduction Credits (lb)				
Pollutant	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Totals
CO	3,905	2,578	3,921	3,978	14,381
NOx	1,507	993	1,563	1,537	5,600
PM10	50	33	61	52	196
SOx	311	206	313	317	1,147
VOC	212	140	213	216	780

EMISISON REDUCTION CREDITS

	Emission Reduction Credits (lb)				
Pollutant	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Totals
CO	35,145	23,200	35,286	35,798	129,429
NOx	13,560	8,936	14,070	13,835	50,401
PM10	450	294	553	464	1,761
SOx	2,803	1,850	2,814	2,855	10,322
VOC	1,906	1,258	1,913	1,941	7,019

TABLE 4-1
CEM TEST RESULTS
DIAMOND WALNUT GROWERS, INC.
WALNUT SHELL-FIRED BOILER

Test No.:	Run 1	Run 2	Run 3	Average
Date:	6/27/01	6/27/01	6/27/01	
Time:	0830-0923	0939-1019	1043-1123	
Steam Production:				
lb/hr	57.5	57.3	54.6	56.5
% of rated capacity	95.8%	95.5%	91.0%	94.1%
Flue Gas:				
Flow rate, dscfm	13,971	14,109	13,100	13,727
Temperature, °F	315.0	315.6	314.8	315.1
O_2, % volume dry	2.71	2.93	2.48	2.71
CO_2, % volume dry	17.85	17.71	17.98	17.85
Moisture, %	14.7	14.6	14.6	14.63
NO_X Emissions:				
ppm volume dry	100.0	104.7	99.1	101.3
ppmvd @ 3% O_2	98.4	104.3	96.3	99.7
lb/MMBtu	0.0411	0.0435	0.0402	0.0416
lb/hr as NO_2	10.16	10.74	9.44	10.11
lb/day as NO_2	243.8	257.8	226.6	242.73

TABLE 4-2
PARTICULATE MATTER TEST RESULTS
DIAMOND WALNUT GROWERS, INC.
WALNUT SHELL-FIRED BOILER

Test No.:	Run 1	Run 2	Run 3	Average
Date:	6/27/01	6/27/01	6/27/01	
Time:	0945-1101	1204-1320	1358-1513	
Steam Production:				
lb/hr	57.0	64.0	65.0	62.0
% of rated capacity	95.0%	106.7%	108.3%	103.3%
Flue Gas:				
Flow rate, dscfm	13,694	16,235	16,162	15,364
Temperature, °F	314.6	332.4	340.7	329.2
O_2, % volume dry	2.71	3.32	2.71	2.91
CO_2, % volume dry	17.85	17.50	18.04	17.80
Moisture, %	14.7	13.8	13.5	14.0
Total PM Emissions:				
gr/sdcf	0.0047	0.0035	0.0033	0.0038
gr/sdcf @ 12% CO_2	0.0031	0.0024	0.0022	0.0026
lb/hr	0.548	0.486	0.459	0.498
tons/hr	0.00027	0.00024	0.00023	0.00025

TABLE 4-2
PARTICULATE MATTER TEST RESULTS
DIAMOND WALNUT GROWERS, INC.
WALNUT SHELL-FIRED BOILER

Test No.:	Run 1	Run 2	Run 3	Average
Date:	7/16/02	7/16/02	7/16/02	--
Time:	636-752	812-928	942-1058	--
Steam Production:				
lb/hr	64.0	63.5	63.8	63.8
% of rated capacity	106.7	105.8	106.3	106.3
Flue Gas:				
Flow rate, dscfm	16,324	16,588	16,145	16,352
Temperature, °F	313.8	342.1	346.0	334.0
O_2, % volume dry	3.65	3.65	3.45	3.58
CO_2, % volume dry	16.72	16.72	16.89	16.78
Moisture, %	13.2	13.2	12.9	13.1
Total PM Emissions:				
gr/sdcf	0.0013	0.0010	0.0013	0.0012
gr/sdcf @ 12% CO_2	0.0010	0.0007	0.0009	0.0009
lb/hr	0.188	0.147	0.177	0.170

TABLE 4-1
CEM TEST RESULTS
DIAMOND WALNUT GROWERS, INC.
WALNUT SHELL-FIRED BOILER

Test No.:	Run 1	Run 2	Run 3	Average
Date:	7/16/02	7/16/02	7/16/052	--
Time:	1337-1407	1416-1446	1449-1519	--
Steam Production:				
klb/hr	58.0	55.0	55.0	56.0
% of rated capacity	96.7	91.7	91.7	93.3
Flue Gas:				
Flow rate, dscfm	14,184	14,154	14,074	14,137
Temperature, °F	324.8	323.8	324.0	324.2
O_2, % volume dry	2.46	2.40	2.29	2.39
CO_2, % volume dry	17.43	17.42	17.27	17.37
Moisture, %	13.2	13.2	12.9	13.1
NO_X Emissions:				
ppm volume dry	91.07	89.26	88.85	89.73
ppmvd @ 3% O_2	88.42	86.38	85.46	86.76
lb/hr as NO_2	9.40	9.19	9.10	9.23
lb/day as NO_2	225.52	220.57	218.31	221.47

TABLE 4-1
SUMMARY OF TEST RESULTS
DIAMOND WALNUT GROWERS, INC.
WALNUT SHELL-FIRED BOILER

Test No.:	Run 1	Run 2	Run 3	Average (Runs 1-3)
Date:	9/10/03	9/10/03	9/10/03	--
Time:	1404-1455	1504-1552	1557-1645	--
Steam Production:				
klb/hr	55.0	55.0	55.0	55.0
% of rated capacity	91.7	91.7	91.7	91.7
Flue Gas:				
Flow rate, dscfm	13,640	13,375	13,644	13,553
Temperature, °F	320.3	317.8	318.2	318.8
O_2, % volume dry	3.211	3.145	3.022	3.126
CO_2, % volume dry	16.44	16.35	16.50	16.43
Moisture, %	13.7	13.5	14.9	14.0
CO Emissions:				
ppm volume dry	5,697	5,310	5,984	5,664
ppmvd @ 3% O_2	5,764	5,354	5,991	5,703
lb/hr	344	315	362	340
lb/day	8,256	7,549	8,677	8,161
NO_X Emissions:				
ppm volume dry	89.59	93.30	89.94	90.94
ppmvd @ 3% O_2	90.66	94.06	90.05	91.59
lb/hr as NO_2	8.890	9.078	8.927	8.965
lb/day as NO_2	213.3	217.9	214.2	215.2

JK

PROOF OF PUBLICATION
NOTICE

STATE OF CALIFORNIA
COUNTY OF SAN JOAQUIN

THE UNDERSIGNED SAYS:

I am a citizen of the United States and a resident of San Joaquin County; I am over the age of 18 years and not a part to or interested in the above-entitled matter. I am the principal clerk of the printer of THE RECORD, a newspaper of general publication, printed and published daily in the City of Stockton, County of San Joaquin and which newspaper has been adjudged a newspaper of general circulation in the City of Stockton and the County of San Joaquin by the Superior Court of the County of San Joaquin, State of California, under the date of February 26, 1952, File No. 52857, San Joaquin County Records; that the notice of which the annexed is a printed copy (set in type not smaller than nonpareil), has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates,
To wit, May,10

All in the year, 2007

I declare under penalty of perjury that the foregoing is true and correct.
Executed on: May 10, 2007
In Stockton, California.

Laurie Costello

Laurie Costello

NOTICE OF PRELIMINARY DECISION FOR THE PROPOSED ISSUANCE OF EMISSION REDUCTION CREDITS

NOTICE IS HEREBY GIVEN that the San Joaquin Valley Unified Air Pollution Control District solicits public comment on the proposed issuance of Emission Reduction Credits (ERCs) to Diamond Foods Inc for shutdown of the cogeneration boiler, at 1050 S Diamond Street in Stockton, California. The quantity of ERCs proposed for banking is 41,668 lb/year for NOx, 108,573 lb/year for CO, 0 lb/year for PM10, 8,690 lb/year for SOx, and 5,348 for VOC.

The analysis of the regulatory basis for these proposed actions, Project # N-1061341, is available for public inspection at the District office at the address below. Written comments on this project must be submitted within 30 days of the publication date of this notice to **DAVID WARNER, DIRECTOR OF PERMIT SERVICES, SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT, 4800 ENTERPRISE WAY, MODESTO, CA, 95356.**

#599646 5/10/07

JK

3+

☒ NORTHERN REGION

☐ CENTRAL REGION

☐ SOUTHERN REGION

ERC/PUBLIC NOTICE CHECK LIST

PROJECT #s: N1061341

REQST.	COMPL.	
—	—	ERC TRANSFER OF PREVIOUSLY BANKED CREDIT
—	—	ERC PRELIMINARY PUBLIC NOTICE
—	—	ERC FINAL PUBLIC NOTICE
√	—	NSR/CEQA PRELIMINARY PUBLIC NOTICE
—	—	NSR/CEQA FINAL PUBLIC NOTICE

√ ☒ Newspaper Notice Emailed to Clerical (Check box and tab to generate Notice)

ENCLOSED DOCUMENTS REQUIRE:

— — Enter Correct Date, Print All Documents from File and Obtain Directors Signature

√ — Send ***PRELIMINARY*** Notice Letters to CARB, EPA and Applicant; Including the Following Attachments:
√ Application Evaluation
√ Other Public Notice

√ — Send ***PRELIMINARY*** Public Notice for Publication to Stockton Record

√ — Send Signed Copies of ***PRELIMINARY*** Notice Letters to:
Jagmeet Kahlon

— — Director's Signature and District Seal Embossed on ERC Certificates

— — Director's Signature on Cover Letter and Mail Cover Letter & ERC Certificates by Certified Mail to:
— Applicant:
— Applicant and Additional Addressees (see cover letters)
— Other

— — Send Copies of Signed and Seal Embossed ERC Certificates and Signed cover letter to Regional Office Attn:

— — Other Special Instructions (please specify):_____

Date Completed April 26, 2007/By Rupi Gill

Lynn Sargenti

From: postmaster@sjvweb
Sent: Friday, May 04, 2007 2:57 PM
To: Lynn Sargenti
Subject: Delivery Status Notification (Relay)


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Public Notice, roject #N-1061.

This is an automatically generated Delivery Status Notification.

Your message has been successfully relayed to the following recipients, but the requested delivery status notifications may not be generated by the destination.

legals@recordnet.com

Lynn Sargenti

From: Lynn Sargenti
Sent: Friday, May 04, 2007 10:18 AM
To: MODESTO BEE (E-mail)
Cc: Tony Reyes
Subject: Public Notice, Project #N-1063424 - CORRECTED

Importance: High


MODESTO BEE COVER PG.doc


Public Notice - Doc..doc

Tracking:

Recipient	Delivery	Read
MODESTO BEE (E-mail)		
Tony Reyes	Delivered: 5/4/2007 10:18 AM	Read: 5/4/2007 10:27 AM

FedEx Express **US Airbill**

FedEx Tracking Number: 8595 9747 1986

Form ID No.: 0215

From *Please print and press hard.*

Date: 5/4/07 Sender's FedEx Account Number: 1500-4459-6

Sender's Name: D. WARNER Phone: (559) 230-6000

Company: SJV UNIFIED AIR POLLUTION DIS

Address: 1990 E GETTYSBURG AVE Dept./Floor/Suite/Room

City: FRESNO State: CA ZIP: 93726-0244

Your Internal Billing Reference (First 24 characters will appear on invoice.): N-1061341 S-1065230

To

Recipient's Name: MIKE TOLLSTRUP Phone: (916) 322-6026

Company: CARB-PROJECT ASESSMENT BRANCH

Recipient's Address: 1001 I ST 6TH FL Dept./Floor/Suite/Room

We cannot deliver to P.O. boxes or P.O. ZIP codes.

Address: To request a package be held at a specific FedEx location, print FedEx address here.

City: SACRAMENTO State: CA ZIP: 95814

0352198370

4a Express Package Service — *Packages up to 150 lbs.*

- [ ] FedEx Priority Overnight — Next business morning.* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [x] FedEx Standard Overnight — Next business afternoon.* Saturday Delivery NOT available
- [ ] FedEx First Overnight — Earliest next business morning delivery to select locations.* Saturday Delivery NOT available
- [ ] FedEx 2Day — Second business day.* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx Express Saver — Third business day.* Saturday Delivery NOT available

FedEx Envelope rate not available. Minimum charge: One-pound rate. * To most locations.

4b Express Freight Service — *Packages over 150 lbs.*

- [ ] FedEx 1Day Freight* — Next business day.** Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx 2Day Freight — Second business day.** Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx 3Day Freight — Third business day.** Saturday Delivery NOT available.

* Call for Confirmation. ** To most locations.

5 Packaging

- [x] FedEx Envelope*
- [ ] FedEx Pak* — Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak.
- [ ] FedEx Box
- [ ] FedEx Tube
- [ ] Other

* Declared value limit $500.

6 Special Handling — Include FedEx Express in Section 5.

- [ ] **SATURDAY Delivery** NOT Available for FedEx Standard Overnight, FedEx First Overnight, FedEx Express Saver, or FedEx 3Day Freight.
- [ ] **HOLD Weekday at FedEx Location** NOT Available for FedEx First Overnight.
- [ ] **HOLD Saturday at FedEx Location** Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

Does this shipment contain dangerous goods? One box must be checked.

- [ ] No
- [ ] Yes — As per attached Shipper's Declaration.
- [ ] Yes — Shipper's Declaration not required.
- [ ] Dry Ice — Dry Ice, 9, UN 1845 ____ x ____ kg
- [ ] Cargo Aircraft Only

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging.

7 Payment *Bill to:* Enter FedEx Acct. No. or Credit Card No. below.

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- [ ] Recipient
- [ ] Third Party
- [ ] Credit Card
- [ ] Cash/Check

FedEx Acct. No. / Credit Card No. Exp. Date

Total Packages	Total Weight	Total Declared Value†
		$ .00

†Our liability is limited to $100 unless you declare a higher value. See back for details. By using this Airbill you agree to the service conditions on the back of this Airbill and in the current FedEx Service Guide, including terms that limit our liability. FedEx Use Only

8 NEW Residential Delivery Signature Options If you require a signature, check Direct or Indirect.

- [ ] No Signature Required — Package may be left *without* obtaining a signature for delivery.
- [ ] Direct Signature — Anyone at recipient's address may sign for delivery. *Fee applies.*
- [ ] Indirect Signature — If no one is available at recipient's address, anyone at a neighboring address may sign for delivery. *Fee applies.*

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FedEx Express **US Airbill**

FedEx Tracking Number: 8559 5580 7565

SAC21

Form ID No.: 0215

From *Please print and press hard.*

Date: 5/4/07 Sender's FedEx Account Number: 1500-4459-6

Sender's Name: D. WARNER Phone: (559) 230-6000

Company: SJV UNIFIED AIR POLLUTION DIS

Address: 1990 E GETTYSBURG AVE Dept./Floor/Suite/Room

City: FRESNO State: CA ZIP: 93726-0244

Your Internal Billing Reference (First 24 characters will appear on invoice.): N-1061341 S-1065230

To

Recipient's Name: GERARDO RIOS Phone: (415) 744-1264

Company: US EPA-REGION IX

Recipient's Address: 75 HAWTHORNE ST Dept./Floor/Suite/Room

We cannot deliver to P.O. boxes or P.O. ZIP codes.

Address: To request a package be held at a specific FedEx location, print FedEx address here.

City: SAN FRANCISCO State: CA ZIP: 94105

0334457215

4a Express Package Service — *Packages up to 150 lbs.*

- [ ] FedEx Priority Overnight — Next business morning.* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
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FedEx Envelope rate not available. Minimum charge: One-pound rate. * To most locations.

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5 Packaging

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- [ ] FedEx Pak* — Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak.
- [ ] FedEx Box
- [ ] FedEx Tube
- [ ] Other

* Declared value limit $500.

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- [ ] **HOLD Saturday at FedEx Location** Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

Does this shipment contain dangerous goods? One box must be checked.

- [ ] No
- [ ] Yes — As per attached Shipper's Declaration.
- [ ] Yes — Shipper's Declaration not required.
- [ ] Dry Ice — Dry Ice, 9, UN 1845 ____ x ____ kg
- [ ] Cargo Aircraft Only

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging.

7 Payment *Bill to:* Enter FedEx Acct. No. or Credit Card No. below.

- [x] Sender — Acct. No. in Section 1 will be billed.
- [ ] Recipient
- [ ] Third Party
- [ ] Credit Card
- [ ] Cash/Check

FedEx Acct. No. / Credit Card No. Exp. Date

Total Packages	Total Weight	Total Declared Value†
		$ .00

†Our liability is limited to $100 unless you declare a higher value. See back for details. By using this Airbill you agree to the service conditions on the back of this Airbill and in the current FedEx Service Guide, including terms that limit our liability. FedEx Use Only

8 NEW Residential Delivery Signature Options If you require a signature, check Direct or Indirect.

- [ ] No Signature Required — Package may be left without obtaining a signature for delivery.
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San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

MAY - 4 2007

Fred Jacobus
Diamond Foods Inc
P.O. Box 1727
Stockton, CA 95201

Re: Notice of Preliminary Decision - Emission Reduction Credits
Project Number: N-1061341

Dear Mr. Jacobus:

Enclosed for your review and comment is the District's analysis of Diamond Foods application for Emission Reduction Credits (ERCs) resulting from shutdown of the cogeneration boiler, which was permitted under N-285-34, at 1050 S Diamond Street in Stockton, California. The quantity of ERCs proposed for banking is 41,668 lb/year for NOx, 108,573 lb/year for CO, 0 lb/year for PM_{10}, 8,690 lb/year for SOx, and 5,348 for VOC.

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. Please submit your written comments on this project within the 30-day public comment period, which begins on the date of publication of the public notice.

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Mr. Jagmeet Kahlon of Permit Services at (209) 557-6452.

Sincerely,

David Warner
Director of Permit Services

DW:JK/vc

Enclosures

Seyed Sadredin
Executive Director/Air Pollution Control Officer

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

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

Southern Region
2700 M Street, Suite 275
Bakersfield, CA 93301-2373
Tel: (661) 326-6900 FAX: (661) 326-6985

www.valleyair.org

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

MAY - 4 2007

Mike Tollstrup, Chief
Project Assessment Branch
Stationary Source Division
California Air Resources Board
PO Box 2815
Sacramento, CA 95812-2815

Re: Notice of Preliminary Decision - Emission Reduction Credits
Project Number: N-1061341

Dear Mr. Tollstrup:

Enclosed for your review and comment is the District's analysis of Diamond Foods application for Emission Reduction Credits (ERCs) resulting from shutdown of the cogeneration boiler, which was permitted under N-285-34, at 1050 S Diamond Street in Stockton, California. The quantity of ERCs proposed for banking is 41,668 lb/year for NOx, 108,573 lb/year for CO, 0 lb/year for PM_{10}, 8,690 lb/year for SOx, and 5,348 for VOC.

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. Please submit your written comments on this project within the 30-day public comment period, which begins on the date of publication of the public notice.

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Sincerely,

David Warner
Director of Permit Services

DW:JK/vc

Enclosure

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Executive Director/Air Pollution Control Officer

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Bakersfield, CA 93301-2373
Tel: (661) 326-6900 FAX: (661) 326-6985

www.valleyair.org

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

MAY - 4 2007

Gerardo C. Rios (AIR 3)
Chief, Permits Office
Air Division
U.S. E.P.A. - Region IX
75 Hawthorne Street
San Francisco, CA 94105

Re: Notice of Preliminary Decision - Emission Reduction Credits
Project Number: N-1061341

Dear Mr. Rios:

Enclosed for your review and comment is the District's analysis of Diamond Foods application for Emission Reduction Credits (ERCs) resulting from shutdown of the cogeneration boiler, which was permitted under N-285-34, at 1050 S Diamond Street in Stockton, California. The quantity of ERCs proposed for banking is 41,668 lb/year for NOx, 108,573 lb/year for CO, 0 lb/year for PM_{10}, 8,690 lb/year for SOx, and 5,348 for VOC.

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. Please submit your written comments on this project within the 30-day public comment period, which begins on the date of publication of the public notice.

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Mr. Jagmeet Kahlon of Permit Services at (209) 557-6452.

Sincerely,

David Warner
Director of Permit Services

DW:JK/vc

Enclosure

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www.valleyair.org

Stockton Record

**NOTICE OF PRELIMINARY DECISION
FOR THE PROPOSED ISSUANCE OF
EMISSION REDUCTION CREDITS**

NOTICE IS HEREBY GIVEN that the San Joaquin Valley Unified Air Pollution Control District solicits public comment on the proposed issuance of Emission Reduction Credits (ERCs) to Diamond Foods Inc for shutdown of the cogeneration boiler, at 1050 S Diamond Street in Stockton, California. The quantity of ERCs proposed for banking is 41,668 lb/year for NOx, 108,573 lb/year for CO, 0 lb/year for PM_{10}, 8,690 lb/year for SOx, and 5,348 for VOC.

The analysis of the regulatory basis for these proposed actions, Project # N-1061341, is available for public inspection at the District office at the address below. Written comments on this project must be submitted within 30 days of the publication date of this notice to **DAVID WARNER, DIRECTOR OF PERMIT SERVICES, SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT, 4800 ENTERPRISE WAY, MODESTO, CA, 95356.**

San Joaquin Valley Air Pollution Control District
ERC Banking Application Review

Facility Name:	Diamond Foods Inc	Date:	April 30, 2007
Mailing Address:	P.O. Box 1727	Engineer:	Jagmeet Kahlon
	Stockton, CA 95201	Lead Engineer:	Rupi Gill
Contact Person:	Dan Welch, Sierra Research		
Telephone:	(916) 444-6666		
Facility ID:	N-0285		
Project #:	N-1061341		
Deemed Complete:	May 31, 2006		

I. PROPOSAL

The applicant applied to bank Emission Reduction Credits (ERCs) from shutdown of the cogeneration boiler permitted under N-0285-34-1. The boiler was fired on walnut shells. The exhaust of the boiler was served by a baghouse and fly ash entrainment system to reduce particulate matter emissions into the atmosphere. The following table shows the bankable emissions reduction from this project.

Bankable Emission Reductions in lb/quarter				
Pollutant	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
NOx	12,961	11,125	11,136	6,446
CO	33,727	28,663	29,241	16,942
PM_{10}	0	0	0	0
SOx	2,699	2,294	2,340	1,357
VOC	1,695	1,419	1,451	783

II. APPLICABLE RULES

District Rule 2201	New and Modified Stationary Source Review (12/15/05)
District Rule 2301	Emission Reduction Credit Banking (12/17/92)
District Rule 4201	Particulate Matter Concentration (12/17/92)
District Rule 4202	Particulate Matter-Emission Rate (12/17/92)
District Rule 4352	Solid Fuel Fired Boilers, Steam Generators and Process Heaters (5/18/06)
District Rule 4801	Sulfur Compounds (12/17/92)

III. LOCATION OF REDUCTIONS

The facility is located at 1050 S Diamond Street in Stockton, California.

IV. METHOD OF GENERATING REDUCTIONS

The facility has shutdown the cogeneration boiler.

V. EMISSIONS CALCULATIONS

A. Assumptions

1. Assumptions will be stated as they are made.

B. Emission Factors (EF)

NOx

Source Test

The boiler was source tested for NOx emissions during year 2003 and 2004. The results are presented in the following table:

Year	Pollutant	EF	Source Test Date
2003	NOx	83.67 ppmvd @ 3% O_2	04/08/2003
2004	NOx	100.64 ppmvd @ 3% O_2	11/17/2004

The above listed ppmvd numbers are converted into lb/MMBtu as follows:

Molecular Weight (MW) for NO_x: 46 lb/lb-mol
F-factor for burning wood corrected to 60 °F: 9,100 ft^3/MMBtu

$$EF = \frac{(ppmvd)\left(F-factor\,\frac{ft^3}{MMBtu}\right)\left(MW\,\frac{lb}{lb-mol}\right)\left(\frac{20.9}{20.9-3}\right)}{\left(379.5\frac{ft^3}{lb-mol}\right)(10^6)}$$

$$EF = \frac{(83.67)(9{,}100)(46)\left(\frac{20.9}{20.9-3}\right)}{(379.5)(10^6)} = 0.108\frac{lb-NO_x}{MMBtu}$$

$$EF = \frac{(100.64)(9{,}100)(46)\left(\frac{20.9}{20.9-3}\right)}{(379.5)(10^6)} = 0.130\frac{lb-NO_x}{MMBtu}$$

District Rule 4352

Maximum allowable NOx limit: 115 ppmv @ 3% O2
Molecular Weight (MW) for NO_x: 46 lb/lb-mol
F-factor for burning wood corrected to 60 °F: 9,100 ft^3/MMBtu

$$EF = \frac{(ppmvd)\left(F-factor\frac{ft^3}{MMBtu}\right)\left(MW\frac{lb}{lb-mol}\right)\left(\frac{20.9}{20.9-3}\right)}{\left(379.5\frac{ft^3}{lb-mol}\right)(10^6)}$$

$$EF = \frac{(115)(9{,}100)(46)\left(\frac{20.9}{20.9-3}\right)}{(379.5)(10^6)} = 0.148\frac{lb-NOx}{MMBtu}$$

The following table shows NOx emissions concentrations from permit N-0285-34-1, District Rule 4352 (Solid Fuel Fired Boilers, Steam Generators and Process Heaters), source tests, and AP-42 Section 1.6.

NOx					
Permit Unit	Permit Limit	Rule 4352	Source Test Results		AP-42 Table 1.6-2 (9/03)
			2003 (04/08/03)	2004 (11/17/04)	
N-0285-34-1	25 lb/hr, 250 lb/day	0.148 lb/MMBtu	**0.108 lb/MMBtu**	**0.130 lb/MMBtu**	0.49 lb/MMBtu

CO

The boiler was source tested for CO emissions during year 2003. The results are presented in the following table:

Year	Pollutant	EF	Source Test Date
2003	CO	5,703 ppmvd @ 3% O_2	09/10/2003
2004	CO	--	--

The above listed ppmvd number is converted into lb/MMBtu as follows:

Molecular Weight (MW) for CO: 28 lb/lb-mol
F-factor for burning wood corrected to 60 °F: 9,100 ft^3/MMBtu

$$EF\ (lb/MMBtu) = \frac{(ppmvd)\left(F-factor\ \frac{ft^3}{MMBtu}\right)\left(MW\ \frac{lb}{lb-mol}\right)\left(\frac{20.9}{20.9-3}\right)}{\left(379.5\frac{ft^3}{lb-mol}\right)(10^6)}$$

$$EF\ (lb/MMBtu) = \frac{(5{,}703)(9{,}100)(28)\left(\frac{20.9}{20.9-3}\right)}{(379.5)(10^6)} = 4.471\frac{lb-CO}{MMBtu}$$

District Rule 4352

Molecular Weight (MW) for CO: 28 lb/lb-mol
F-factor for burning wood corrected to 60 °F: 9,100 ft^3/MMBtu

$$EF\ (lb/MMBtu) = \frac{(ppmvd)\left(F-factor\ \frac{ft^3}{MMBtu}\right)\left(MW\ \frac{lb}{lb-mol}\right)\left(\frac{20.9}{20.9-3}\right)}{\left(379.5\frac{ft^3}{lb-mol}\right)(10^6)}$$

$$EF\ (lb/MMBtu) = \frac{(400)(9{,}100)(28)\left(\frac{20.9}{20.9-3}\right)}{(379.5)(10^6)} = 0.314\frac{lb-CO}{MMBtu}$$

The following table shows CO emissions concentrations from permit N-0285-34-1, District Rule 4352, source tests, and AP-42 Section 1.6.

CO					
Permit Unit	Permit Limit	Rule 4352	Source Test Results		AP-42 Table 1.6-2 (9/03)
			2003 (04/08/03)	2004 (11/17/04)	
N-0285-34-1	--	**0.314 lb/MMBtu**	4.471 lb/MMBtu	--	0.60 lb/MMBtu

PM_{10}

According to the source test conducted on 10/25/2005, the PM emissions from the boiler were 0.0020 gr-PM/dscf. This number is converted into lb-PM/MMBtu number as follows:

PM Emissions = 0.0020 gr-PM/dscf × 9,100 dscf/MMBtu × lb/7,000 gr
= 0.0026 lb-PM/MMBtu

Using AP-42 Table 1.6-1 (9/03) for Dry Wood, a fraction of pounds of PM_{10} per pound of PM is determined and applied to the above calculated PM emissions to calculate the PM_{10} emissions. The calculations are given as follows:

lb-PM_{10}/lb-PM = (0.36 lb-PM_{10}/MMBtu)/(0.40 lb-PM/MMBtu)
= 0.90 lb-PM_{10}/lb-PM

PM_{10} Emissions = 0.0026 lb-PM/MMBtu × 0.90 lb-PM_{10}/lb-PM
= 0.0023 lb-PM_{10}/MMBtu

The following table shows PM emissions concentrations from permit N-0285-34-1, District Rule 4352, source tests, and AP-42 Section 1.6. Since the boiler was not source tested for PM emissions in the time period of 2003 and 2004, results from 2005 will be used.

PM_{10}				
Permit Unit	Permit Limit	Rule 4352	Source Test Results 2005 (10/25/05)	AP-42 Table 1.6-1 (9/03)
N-0285-34-1	0.015 gr-PM/dscf and 2.2 lb/hr	--	**0.0023 lb/MMBtu**	0.0036 lb/MMBtu

SOx

SOx emissions were not quantified during any source test. Thus, SOx emission factor is taken from EPA's AP-42, Table 1.6-2 (9/03).

SOx				
Permit Unit	Permit Limit	Rule 4352	Source Test Results	AP-42 Table 1.6-2 (9/03)
N-0285-34-1	--	--	--	**0.025 lb/MMBtu**

VOC

VOC emissions were not quantified during any source test. Thus, VOC emission factor is taken from EPA's AP-42, Table 1.6-3 (9/03).

VOC				
Permit Unit	Permit Limit	Rule 4352	Source Test Results	AP-42 Table 1.6-3 (9/03)
N-0285-34-1	--	--	--	**0.017 lb/MMBtu**

Summary

The lowest emission factor out of permit limit, rule limit, source test, and AP-42 will be utilized to calculate the historical actual emissions during the baseline period. These emission factors are summarized in the following table:

Pollutant		Emission Factor	Source
NO_X	2003	0.0108 lb/MMBtu	Source Test 4/8/03
	2004	0.130 lb/MMBtu	Source Test 11/17/04
CO		0.314 lb/MMBtu	Rule 4352 limit
PM_{10}		0.0023 lb/MMBtu	Source Test (10/25/05)
SOx		0.025 lb/MMBtu	AP-42 Table 1.6-2 (9/03)
VOC		0.017 lb/MMBtu	AP-42 Table 1.6-3 (9/03)

Summaries of all the source tests are provided in Appendix V of this document.

C. Baseline Period

Section 3.8 of District Rule 2201 defines the baseline period as "two consecutive years immediately prior to the submission of a complete application" or "another time period of at least two years within five years immediately prior to the submission of the complete application determined by the APCO as more representative of normal source operation".

The District has determined that the consecutive two-year period immediately preceding the banking application was not representative of normal source operation.

The District has determined that the two-year period immediately preceding Q1 2003 to be most representative of normal source operations. Therefore, the baseline period for this banking application is Q1 2003 through Q4 2004. Refer to Appendix III of this document for baseline period determination.

D. Historical Actual Emissions

Historical Actual Emissions (HAEs) are emissions that actually occurred, and are calculated from actual records and established emission factors per Rule 2201, Section 6.2.1.

The quarterly baseline heat input in MMBtu is given in the following table. These values are taken from Appendix II of this document.

Quarterly Heat Input Data (MMBtu)				
Year	Q1	Q2	Q3	Q4
2003	123,212	96,183	119,270	77,009
2004	126,590	117,669	98,688	53,626

The HAEs will be calculated by multiplying the quarterly heat input of each quarter in year 2003 and year 2004 with the lowest emission factor for each pollutant. The HAE for each pollutant is given in the following tables.

NOx

Quarterly HAEs for NOx				
Year	Quarter	Heat Input (MMBtu/qtr)	EF (lb/MMBtu)	HAEs (lb/qtr)
2003	1	123,212	0.108	13,307
	2	96,183		10,388
	3	119,270		12,881
	4	77,009		8,317
Year	Quarter	Heat Input (MMBtu/qtr)	EF (lb/MMBtu)	HAEs (lb/qtr)
2004	1	126,590	0.130	16,457
	2	117,669		15,297
	3	98,688		12,829
	4	53,626		6,971

Average HAE for each quarter are presented in the following table.

Quarterly HAEs for NOx	
Quarter	HAEs (lb/qtr)
1	14,882
2	12,843
3	12,855
4	7,644

CO

Quarterly HAEs for CO				
Year	Quarter	Heat Input (MMBtu/qtr)	EF (lb/MMBtu)	HAEs (lb/qtr)
2003	1	123,212	0.313	38,565
	2	96,183		30,105
	3	119,270		37,332
	4	77,009		24,104
Year	Quarter	Heat Input (MMBtu/qtr)	EF (lb/MMBtu)	HAEs (lb/qtr)
2004	1	126,590	0.313	39,623
	2	117,669		36,830
	3	98,688		30,889
	4	53,626		16,785

Average HAE for each quarter are presented in the following table.

Total Quarterly HAEs for CO	
Quarter	HAEs (lb/qtr)
1	39,094
2	33,468
3	34,111
4	20,445

PM_{10}

Quarterly HAEs for PM_{10}				
Year	Quarter	Heat Input (MMBtu/qtr)	EF (lb/MMBtu)	HAEs (lb/qtr)
2003	1	123,212	0.0023	283
	2	96,183		221
	3	119,270		274
	4	77,009		177
Year	Quarter	Heat Input (MMBtu/qtr)	EF (lb/MMBtu)	HAEs (lb/qtr)
2004	1	126,590	0.0023	291
	2	117,669		271
	3	98,688		227
	4	53,626		123

Average HAE for each quarter are presented in the following table.

Quarterly HAEs for PM_{10}	
Quarter	HAEs (lb/qtr)
1	287
2	246
3	251
4	150

SOx

Quarterly HAEs for SOx				
Year	Quarter	Heat Input (MMBtu/qtr)	EF (lb/MMBtu)	HAEs (lb/qtr)
2003	1	123,212	0.025	3,080
	2	96,183		2,405
	3	119,270		2,982
	4	77,009		1,925
Year	Quarter	Heat Input (MMBtu/qtr)	EF (lb/MMBtu)	HAEs (lb/qtr)
2004	1	126,590	0.025	3,165
	2	117,669		2,942
	3	98,688		2,467
	4	53,626		1,341

Average HAE for each quarter are presented in the following table.

Quarterly HAEs for SOx	
Quarter	HAEs (lb/qtr)
1	3,123
2	2,674
3	2,725
4	1,633

VOC

Quarterly HAEs for VOC				
Year	Quarter	Heat Input (MMBtu/qtr)	EF (lb/MMBtu)	HAEs (lb/qtr)
2003	1	123,212	0.017	2,095
	2	96,183		1,635
	3	119,270		2,028
	4	77,009		1,309
Year	Quarter	Heat Input (MMBtu/qtr)	EF (lb/MMBtu)	HAEs (lb/qtr)
2004	1	126,590	0.017	2,152
	2	117,669		2,000
	3	98,688		1,678
	4	53,626		912

Average HAE for each quarter are presented in the following table.

Quarterly HAEs for VOC	
Quarter	HAEs (lb/qtr)
1	2,124
2	1,818
3	1,853
4	1,111

Summary

The average HAE for each pollutant is summarized in the following table:

Average HAE in lb/quarter				
Pollutant	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
NOx	14,882	12,843	12,855	7,644
CO	39,094	33,468	34,111	20,445
PM_{10}	287	246	251	150
SOx	3,123	2,674	2,725	1,633
VOC	2,124	1,818	1,853	1,111

E. Actual Emissions Reductions

In May 2006, Diamond Foods has changed the operational status of a 20.0 MMBtu/hr natural gas-fired boiler (permitted under N-285-106) from a 'backup boiler' to a primary 'full-time boiler' to provide additional steam that would otherwise be supplied by the the cogen boiler. This boiler was treated as new unit for New Source Review purposes. Per calculations in Appendix VI of this document, the quarterly emisssions from this boiler are as follows:

PE2 lb/quarter				
Pollutant	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
NOx	481	482	482	482
CO	1,620	1,620	1,621	1,621
PM_{10}	333	333	333	333
SOx	124	125	125	125
VOC	241	241	241	241

Per Rule 2201, Section 4.12, the Actual Emission Reductions (AERs) would be the difference of HAEs from the cogen boiler and the potential emissions from a 20.0 MMBtu/hr natural gas-fired unit. AERs resulted in negative numbers are equated to zero.

AER in lb/quarter				
Pollutant	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
NOx	14,401	12,361	12,373	7,162
CO	37,474	31,848	32,490	18,824
PM_{10}	0	0	0	0
SOx	2,999	2,549	2,600	1,508
VOC	1,883	1,577	1,612	870

F. Air Quality Improvement Deduction

The air quality improvement deduction, per Rule 2201, Section 4.12.1, is 10% of the AERs.

Air Quality Improvement Deduction in lb/quarter				
Pollutant	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
NOx	1,440	1,236	1,237	716
CO	3,747	3,185	3,249	1,882
PM_{10}	0	0	0	0
SOx	300	255	260	151
VOC	188	158	161	87

G. Increases in Permitted Emissions

There is no increase in permitted emissions due to this project.

H. Bankable Emission Reductions

The bankable emission reductions are determined by subtracting the Air Quality Improvement Deductions from the AERs for each pollutant.

Bankable Emission Reductions in lb/quarter				
Pollutant	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
NOx	12,961	11,125	11,136	6,446
CO	33,727	28,663	29,241	16,942
PM_{10}	0	0	0	0
SOx	2,699	2,294	2,340	1,357
VOC	1,695	1,419	1,451	783

VI. COMPLIANCE

To comply with the definition of Actual Emissions Reductions (Rule 2201, Section 3.2.1 and Rule 2301, Sections 3.6 and 4.2.1), the reductions must be:

A. Real

The emissions reductions are real since they were generated by shutdown of the emissions unit. Furthermore, the potential emissions from the replacement steam source (i.e. boiler N-285-106) has been deducted from the historical actual emissions of the cogen boiler.

B. Enforceable

The reductions are enforceable since the Permits to Operate (PTO) have been surrendered; further operation would subject the owner to enforcement actions.

C. Quantifiable

The reductions are quantifiable since they were calculated from historic fuel consumption data, and established EFs, and methods according to District Rule 2201.

D. Permanent

The reductions are permanent since the applicant had shutdown the emissions unit, and the PTO has been surrendered; further operation would require a permit from the District.

E. Surplus

This section will contain an explanation of what actions were taken to ensure that all emission reductions were surplus of the existing and newly proposed rules and plans. The following rules and plans were analyzed:

District Rule 2201	New and Modified Stationary Source Review
District Rule 4201	Particulate Matter Concentration
District Rule 4202	Particulate Matter-Emission Rate
District Rule 4352	Solid Fuel Fired Boilers, Steam Generators and Process Heaters
District Rule 4801	Sulfur Compounds
2006 PM10 Plan	
2007 Ozone Plan (Draft)	

District Rule 2201: New and Modified Stationary Source Review

Section 3.15 of this Rule states that each Permit to Operate shall have Daily Emission Limitations (DELs), which are permit conditions that restrict a unit's maximum daily emissions.

The boiler's Permit to Operate contained the following DELs (see Appendix IV):

NO_x: 250 lb/day
PM: 0.015 gr/scf

The boiler's actual emissions during the baseline period were:

2003:

NOx: 203.9 lb/day (Source tested on 4/8/03)
PM: 0.0020 gr/dscf (Source tested on 10/25/05)

2004:

NOx: 207.6 lb/day (Source tested on 4/8/03)
PM: 0.0020 gr/dscf (Source tested on 10/25/05)

Therefore, this unit was in compliance with the requirements of this Rule during the baseline period.

District Rule 4201: Particulate Matter Concentration

Section 3.1 of this Rule limits the particulate matter emission concentration to 0.1 gr/dscf.

Per section V.H of this document, the bankable emission reductions for PM_{10} are zero for each quarter. Thus, compliance discussion is not necessary.

District Rule 4202: Particulate Matter-Emission Rate

Section 4.0 of this rule, a person shall not discharge into the atmosphere PM emissions in excess of the maximum allowable limit (E_{max}), in lb/hr, determined by the following equation:

$E_{max} = 17.31\ P^{0.16}$, for Process weight (P) greater than 30 tons/hr
$E_{max} = 3.59\ P^{0.62}$, for Process weight (P) less than or equal to 30 tons/hr

Per section V.H of this document, the bankable emission reductions for PM_{10} are zero for each quarter. Thus, compliance discussion is not necessary.

District Rule 4352 Solid Fuel Fired Boilers, Steam Generators and Process Heaters

Section 5.1 of this Rule lists the following limits:

NOx: 115 ppmv @ 3% O_2
CO: 400 ppmv @ 3% O_2

Per section V.B of this document, the above numbers are equivalent to:

NOx: 0.148 lb/MMBtu
CO: 0.314 lb/MMBtu

Per source test data, the NOx emissions were 0.108 lb/MMBtu in 2003 and 0.130 lb/MMBtu in 2004. These numbers are lower than the rule limit and are used to quantify the actual emissions from this unit.

Per source test data, the CO emissions were higher than 0.314 lb/MMBtu. Thus, Rule limit is used to quantify the actual emissions from this unit.

District Rule 4801: Sulfur Compounds

Sections 3.1 of this Rule limits sulfur compound emissions (as SO_2) to 0.2 percent by volume, which is equal to 2,000 ppmvd.

This boiler was never tested for SO_2 emissions; however, its SO_2 emission concentration during the baseline period can be estimated as follows:

$$\frac{\left(0.025\frac{\text{lb}-SO_2}{\text{MMBtu}}\right)\left(379.5\frac{\text{dscf}}{\text{lb}-\text{mol}}\right)(10^6)}{\left(9{,}100\frac{\text{dscf}}{\text{MMBtu}}\right)\left(64\frac{\text{lb}-SO_2}{\text{lb}-\text{mol}}\right)} \cong 16.3\,\text{ppmvd}$$

Therefore, it is assumed this boiler was in compliance with the requirements of this Rule during the baseline period.

2006 PM10 Plan

Section 4.4.2 of '2006 PM10 Plan' is examined to find the proposed PM_{10} control measures for biomass-fueled steam generators.

Currently, this plan does not have any specific PM_{10} emission limits for biomass-fueled steam generators. Furthermore, the bankable emission reductions for PM_{10} are zero for each quarter. Therefore, no further discussion is necessary. The referenced section can be found in Appendix VII of this document.

2007 Ozone Plan (Draft)

Appendix - I Page 18 of '2007 Ozone Plan (Draft)' is examined to determine the proposed NOx control measures for biomass-fueled steam generators.

Currently, this plan does not propose any specific control measures or NOx emission limits for biomass-fueled steam generators. This plan recommends further study to determine if NOx emission limits of 70 ppmv or 40 ppmv are achievable and to determine if the Selective Catalytic Reduction (SCR) system could be retrofitted to the existing steam generators. For these reasons, the HAE calculated above for NOx does not need to be discounted and all bankable emission reductions are considered surplus at this time. The referenced section can be found in Appendix VIII of this document.

Summary:

Based on the above discussion, the HAEs calculated in Section V.D of this document are surplus of all the applicable rules and regulations.

F. Not used for the approval of an Authority to Construct or as Offsets

The ERCs generated by the shutdown of the cogeneration boiler were not used in the approval of an Authority to Construct or as offsets for any project.

G. Timely Submittal

Section 5.5 of Rule 2301 states that ERC certificate applications for reductions shall be submitted within 180 days after shutdown (date of permanent cession of emissions). Shutdown occurred on November 10, 2005, and the ERC application was received on May 09, 2006. The application was received within 180 days of the shutdown date. Therefore, the application was submitted in a timely fashion.

VII. RECOMMENDATION

The District recommends that ERC Certificate be issued to Diamond Foods Inc for the amount indicated in the following table.

Bankable Emission Reductions (lb/qtr)				
Pollutant	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
NOx	12,961	11,125	11,136	6,446
CO	33,727	28,663	29,241	16,942
PM_{10}	0	0	0	0
SOx	2,699	2,294	2,340	1,357
VOC	1,695	1,419	1,451	783

APPENDICES

Appendix I:	Draft ERC Certificates
Appendix II:	Quarterly Heat Input Calculations
Appendix III:	Baseline Period Calculations
Appendix IV:	Permit N-285-34-1
Appendix V:	Source Test Summaries
Appendix VI:	Potential Emissions Calculations
Appendix VII:	Section from '2006 PM10 Plan'
Appendix VIII:	Section from '2007 Ozone Plan (Draft)'

Appendix I

Draft ERC Certificates

San Joaquin Valley
Air Pollution Control District

Northern Regional Office • 4800 Enterprise Way • Modesto, CA 95356-8718

Emission Reduction Credit Certificate
N1061341-39-1

DRAFT

ISSUED TO: DIAMOND FOODS INCORPORATED

ISSUED DATE: <DRAFT>

LOCATION OF REDUCTION: 1050 S DIAMOND STREET
STOCKTON, CA 95205

For VOC Reduction In The Amount Of:

Quarter 1	Quarter 2	Quarter 3	Quarter 4
1,695 lbs	1,419 lbs	1,451 lbs	783 lbs

[ ] Conditions Attached

Method Of Reduction

[ ] Shutdown of Entire Stationary Source
[X] Shutdown of Emissions Units
[ ] Other

shutdown of the cogeneration boiler

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

Seyed Sadredin, Executive Director / APCO

DRAFT

David Warner, Director of Permit Services

San Joaquin Valley
Air Pollution Control District

Northern Regional Office • 4800 Enterprise Way • Modesto, CA 95356-8718

Emission Reduction Credit Certificate
N1061341-39-2

ISSUED TO: DIAMOND FOODS INCORPORATED

ISSUED DATE: <DRAFT>

LOCATION OF REDUCTION: 1050 S DIAMOND STREET
STOCKTON, CA 95205

For NOx Reduction In The Amount Of:

Quarter 1	Quarter 2	Quarter 3	Quarter 4
12,961 lbs	11,125 lbs	11,136 lbs	6,446 lbs

[ ] Conditions Attached

Method Of Reduction

[ ] Shutdown of Entire Stationary Source
[X] Shutdown of Emissions Units
[ ] Other

shutdown of the cogeneration boiler

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

Seyed Sadredin, Executive Director / APCO

David Warner, Director of Permit Services

San Joaquin Valley
Air Pollution Control District

Northern Regional Office • 4800 Enterprise Way • Modesto, CA 95356-8718

Emission Reduction Credit Certificate
N1061341-39-3

DRAFT

ISSUED TO: DIAMOND FOODS INCORPORATED

ISSUED DATE: <DRAFT>

LOCATION OF REDUCTION: 1050 S DIAMOND STREET
STOCKTON, CA 95205

For CO Reduction In The Amount Of:

Quarter 1	Quarter 2	Quarter 3	Quarter 4
33,727 lbs	28,663 lbs	29,241 lbs	16,942 lbs

[ ] Conditions Attached

Method Of Reduction

[ ] Shutdown of Entire Stationary Source
[X] Shutdown of Emissions Units
[ ] Other

shutdown of the cogeneration boiler

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

Seyed Sadredin, Executive Director / APCO

DRAFT

David Warner, Director of Permit Services

San Joaquin Valley
Air Pollution Control District

Northern Regional Office • 4800 Enterprise Way • Modesto, CA 95356-8718

Emission Reduction Credit Certificate
N1061341-39-4

DRAFT

ISSUED TO: DIAMOND FOODS INCORPORATED

ISSUED DATE: <DRAFT>

LOCATION OF REDUCTION: 1050 S DIAMOND STREET
STOCKTON, CA 95205

For PM10 Reduction In The Amount Of:

Quarter 1	Quarter 2	Quarter 3	Quarter 4
None	None	None	None

[ ] Conditions Attached

Method Of Reduction

[ ] Shutdown of Entire Stationary Source
[X] Shutdown of Emissions Units
[ ] Other

shutdown of the cogeneration boiler

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

Seyed Sadredin, Executive Director / APCO

DRAFT

David Warner, Director of Permit Services

San Joaquin Valley
Air Pollution Control District

Northern Regional Office • 4800 Enterprise Way • Modesto, CA 95356-8718

Emission Reduction Credit Certificate
N1061341-39-5

ISSUED TO: DIAMOND FOODS INCORPORATED

ISSUED DATE: <DRAFT>

LOCATION OF REDUCTION: 1050 S DIAMOND STREET
STOCKTON, CA 95205

For SOx Reduction In The Amount Of:

Quarter 1	Quarter 2	Quarter 3	Quarter 4
2,699 lbs	2,294 lbs	2,340 lbs	1,357 lbs

[ ] Conditions Attached

Method Of Reduction

[ ] Shutdown of Entire Stationary Source
[X] Shutdown of Emissions Units
[ ] Other

shutdown of the cogeneration boiler

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

Seyed Sadredin, Executive Director / APCO

David Warner, Director of Permit Services

Appendix II

Quarterly Heat Input Calculations

Quarterly Heat Input Calculations

The following steps are taken to calculate the quarterly heat input (MMBtu) for the cogen boiler.

Step 1: Gross Electric Generation from 2001 to 2005

The fuel consumption for the cogeneration boiler is calculated from the gross electric power generation data. The gross electric power generation from year 2001 to 2004 was compiled from Form CEC-1304, Schedule 2, Part A.

The gross electric power for January 2005 to June 2005 is calculated from net power generation obtained from PG&E meter reports, and for July 2005 to November 2005 is calculated from net power generation obtained from daily Diamond power plant output reports. In order to determine the gross electric power from net power generation for year 2005, the District took a conservative approach and determined the minimum fraction of annual gross power generation to annual net power generation from year 2001, 2002, 2003 and 2004. This fraction number is 1.120. The fraction is then multiplied with the net power generation data to estimate the gross power generation for 2005. The following table summarizes the net power generation and gross power for year 2001 to 2005 generation.

Month	Net Power Generation (MW-hr)					Gross Power Generation (MW-hr)				
	2001	2002	2003	2004	2005	2001	2002	2003	2004	2005
January	1,578	2,216	2,519	2,221	0	1,767	2,482	2,856	2,523	0
February	1,987	2,096	2,255	1,545	1,491	2,225	2,348	2,552	1,755	1,670
March	2,209	1,839	2,496	2,095	2,269	2,474	2,060	2,820	2,379	2,541
April	780	822	880	1,608	1,513	874	921	1,012	1,826	1,694
May	428	1,703	2,320	1,838	1,606	479	1,907	2,668	2,088	1,799
June	2,518	1,649	2,431	2,001	2,430	2,820	1,847	2,743	2,273	2,721
July	2,616	1,381	2,431	2,370	1,777	2,930	1,547	2,767	2,692	1,990
August	2,937	0	2,496	1,972	899	3,289	0	2,867	2,240	1,007
September	2,780	1,427	2,019	226	1,796	3,113	1,598	2,331	257	2,011
October	2,250	2,205	1,760	0	1,434	2,520	2,470	2,030	0	1,606
November	1,032	1,953	792	2,015	431	1,156	2,187	876	2,289	483
December	2,729	1,935	1,950	467	0	3,057	2,167	2,238	530	0
Total	23,844	19,226	24,349	18,358	15,646	26,704	21,534	27,760	20,852	17,523

Step 2: Fuel Consumption from 2001 to 2005

The annual fuel consumption data for year 2001 to 2004 is taken from annual emission statements submitted to the District.

Fuel Consumption (tons/yr)				
2001	2002	2003	2004	2005
37,300	22,642	28,052	26,763	17,715*

*Refer to a footnote of the table in Step 3

Step 3: Monthly Fuel Consumption from 2001 to 2005

The annual fuel consumption in Step 2 is fractioned to estimate the monthly fuel consumption using following equation:

$$\text{Fuel Consumption (tons/yr)} \times \left(\frac{\text{Gross Power Generation (MW - hr/month)}}{\text{Gross Power Generation (MW - hr/yr)}} \right)$$

Then, the monthly fuel consumption (in tons) is converted into a heat input number (in MMBtu). The District took a conservative approach and used the minimum heat content of walnut shells, which was 7,409 Btu/lb for the walnut samples tested in November 2003. Thus, fuel consumption in MMBtu would be:

Monthly Shell Consumption (tons) × 7,409 Btu/lb × 2,000 lb/ton × MMBtu/10^6 Btu

The following table summarizes the monthly fuel consumption in tons and MMBtu.

Month	Fuel Consumption (tons)					Heat Input (MMBtu)				
	2001	2002	2003	2004	2005*	2001	2002	2003	2004	2005
January	2,468	2,610	2,886	3,238	0	36,571	38,675	42,765	47,981	0
February	3,108	2,469	2,579	2,252	1,688	46,054	36,586	38,216	33,370	25,016
March	3,456	2,166	2,850	3,053	2,569	51,211	32,096	42,231	45,239	38,069
April	1,221	968	1,023	2,344	1,713	18,093	14,344	15,159	34,733	25,385
May	669	2,005	2,696	2,680	1,818	9,913	29,710	39,949	39,712	26,945
June	3,939	1,942	2,772	2,917	2,751	58,368	28,777	41,075	43,224	40,770
July	4,093	1,627	2,796	3,455	2,012	60,650	24,109	41,431	51,196	29,814
August	4,594	0	2,897	2,875	1,018	68,074	0	42,928	42,602	15,083
September	4,348	1,680	2,356	330	2,034	64,429	24,894	34,911	4,890	30,133
October	3,520	2,597	2,051	0	1,624	52,159	38,482	30,392	0	24,060
November	1,615	2,300	885	2,938	488	23,931	34,081	13,114	43,535	7,231
December	4,269	2,278	2,261	681	0	63,258	33,755	33,503	10,091	0
Fuel Consumption (tons/yr) from Step 2	37,300	22,642	28,052	26,763	17,715	552,711	335,509	415,674	396,573	262,506

*In order to calculate fuel consumption for 2005, the District took a conservative approach and determined the minimum fraction of annual fuel consumption (tons) to the annual gross power generation (MW-hr) from year 2001, 2002, 2003 and 2004. This fraction is found to be 1.011, which is multiplied with the gross power generation data to estimate the monthly fuel usage in tons for 2005.

Step 4: Quarterly Heat Input from 2001 to 2005

The quarterly fuel consumption is summarized in the following table:

	MMBtu/qurater				
Quarter	**2001**	**2002**	**2003**	**2004**	**2005**
Q1	133,836	107,357	123,212	126,590	63,085
Q2	86,374	72,831	96,183	117,669	93,100
Q3	193,153	49,003	119,270	98,688	75,030
Q4	139,348	106,318	77,009	53,626	31,291

Appendix III

Baseline Period Calculation

Baseline Period Determination

The quarterly heat input data (MMBtu) is taken from Appendix III of this evaluation.

Calendar Quarter	Facility Quarterly Heat Input Data (MMBtu)	8 Quarter Difference
Q1 2001	133,836	
Q2 2001	86,374	
Q3 2001	193,153	
Q4 2001	139,348	
Q1 2002	107,357	
Q2 2002	72,831	
Q3 2002	49,003	411
Q4 2002	106,318	12,879
Q1 2003	123,212	11,551
Q2 2003	96,183	12,777
Q3 2003	119,270	3,542
Q4 2003	77,009	4,251
Q1 2004	126,590	1,847
Q2 2004	117,669	3,758
Q3 2004	98,688	9,969
Q4 2004	53,626	3,382
Q1 2005	63,085	4,134
Q2 2005	93,100	4,519
Q3 2005	75,030	10,049
Q4 2005	31,291	15,764
Average:	98,149	

The values in this column represent the absolute value of the difference between the facility's quarterly production throughput averaged over the last 5 years since the date the application was submitted (98,149 MMBtu - considered to be "normal" source operation) and the quarterly throughput averaged over the previous 8 consecutive calendar quarters starting with Q4 2005 (application was received May 9, 2006). The smallest "difference" is assumed to be the 8 consecutive calendar quarter period whose averaged production most closely represents "normal" source operation. For example:

9,969 = ABS(98,149 - (SUM(Q4 2002 through Q3 2004)/8).

3,542 = ABS(98,149 - (SUM(Q4 2001 through Q3 2003)/8).

Since this value is the smallest "difference", the 8 consecutive calendar quarter period associated with it (Q1 2003 - Q4 2004) is assumed to most closely represent "normal" source operation. Therefore, the baseline period is from **Q1 2003 - Q4 2004**

Appendix IV

Permit N-285-34-1

CONDITIONS FOR PERMIT N-285-34-1

EXPIRATION DATE: 12/31/2009

LEGAL OWNER OR OPERATOR: DIAMOND WALNUT GROWERS, INC.
MAILING ADDRESS: ATTN: ACCOUNTS PAYABLE SUPERVISOR
PO BOX 1727
STOCKTON, CA 95201

LOCATION: 1050 S DIAMOND STREET
STOCKTON, CA 95205

EQUIPMENT DESCRIPTION:
4.5 MW COGENERATION FACILTY A; BOILER, 60,000 LBS/HR; BAGHOUSE AND A VOLU-WETTER FLYASH ENTRAINMENT SYSTEM

CONDITIONS

1. The baghouse shall be equipped with a pressure differential gauge to indicate the pressure drop across the bags. The gauge shall be maintained in good working condition at all times and shall be located in an easily accessible location. [District NSR Rule] Federally Enforceable Through Title V Permit
2. Replacement bags numbering at least 10% of the total number of bags in the largest baghouse using each type of bag shall be maintained on the premises. [District NSR Rule] Federally Enforceable Through Title V Permit
3. Material removed from dust collector(s) shall be disposed of in a manner preventing entrainment into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
4. The baghouse cleaning frequency and duration shall be adjusted to optimize the control efficiency. [District NSR Rule] Federally Enforceable Through Title V Permit
5. The Air-Fuel ratio shall be adjusted to maintain the exhaust oxygen level below 7% by volume. A continuous record of the exhaust oxygen concentration shall be kept on the premises, and shall be made available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
6. The particulate matter emissions from the baghouse shall be less than 0.015 gr/scf and 2.2 lb/hr. [District NSR Rule] Federally Enforceable Through Title V Permit
7. There shall be no leaks in the ducting to the baghouse and by-pass stack. [District NSR Rule] Federally Enforceable Through Title V Permit
8. Operation of this facility shall be discontinued for the day the District receives and verifies complaints that the emissions from the co-generation facility are causing a nuisance. [District NSR Rule] Federally Enforceable Through Title V Permit
9. The co-generation boiler shall be fired on walnut shell only. The District shall be notified prior to any fuel switch and the facility shall be source tested within 30 days of the fuel switch. [District NSR Rule] Federally Enforceable Through Title V Permit
10. All flyash collected by the baghouse shall be processed by the Volu-Wetter flyash entrainment system. [District NSR Rule] Federally Enforceable Through Title V Permit
11. During cold start-up, emissions may exceed 20% opacity for a period not exceeding 30 minutes. [District NSR Rule] Federally Enforceable Through Title V Permit
12. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
13. Particulate matter emissions shall not exceed the hourly rate as calculated in District Rule 4202 using the equation E=3.59xP^0.62 if P is less than or equal to 30 tons per hour, or E=17.31xP^0.16 if P is greater than 30 tons per hour. [District Rule 4202] Federally Enforceable Through Title V Permit
14. The NOx emissions shall be less than 25 pounds during any one hour and 250 pounds during any one day. [District NSR Rule] Federally Enforceable Through Title V Permit

CONDITIONS FOR PERMIT N-285-34-1

15. Performance testing to document the NOx emissions shall be conducted on an annual basis. [District NSR Rule and District] Federally Enforceable Through Title V Permit

16. Source testing to measure PM emissions using EPA Method 5 shall be conducted within one year of permit issuance. If compliance with the PM emissions limit is demonstrated for two consecutive years, testing frequency may be reduced to every 36 months. If the unit fails to demonstrate compliance with the emission limits, the testing frequency shall return to not less than once every 12 months. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

17. Operator shall perform a complete inspection of dust collection system and its components on an annual basis. Dust collector filters shall be inspected thoroughly for tears, scuffs, abrasions, holes, or any evidence of particulate matter breakthrough and shall be replaced as needed. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

18. Visible emissions from baghouse shall be inspected quarterly during operation. If visible emissions are observed, corrective action shall be taken to eliminate visible emissions. If visible emissions cannot be corrected within 24 hours, a visible emissions test using EPA Method 9 shall be conducted. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

19. Records of dust collector maintenance, inspections, and repair shall be maintained. The records shall include identification of the equipment, date of inspection, corrective action taken, and identification of the individual performing the inspection. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

20. Sulfur compound emissions shall not exceed 0.2% by volume, 2000 ppmv, on a dry basis averaged over 15 consecutive minutes. [San Joaquin County Rule 407 and District Rule 4801] Federally Enforceable Through Title V Permit

21. Source testing shall be conducted using the methods and procedures approved by the District . The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

22. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081] Federally Enforceable Through Title V Permit

23. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

Appendix V

Source Test Summaries

TABLE 1-1
RESULTS SUMMARY
NO_x EMISSIONS TESTS
DIAMOND WALNUT GROWERS, INC.
WALNUT SHELL-FIRED BOILER
APRIL 8, 2003

Parameter	Average	Permit Limits
Steam Production:		
klb/hr	55.0	--
% of rated capacity	91.7	--
Flue Gas:		
Flow rate, dscfm	12,586	--
Temperature, °F	326.9	--
O_2, % volume dry	1.044	--
CO_2, % volume dry	18.42	--
Moisture, %	16.2	--
NO_X Emissions:		
ppm volume dry	92.80	--
ppmvd @ 3% O_2	83.67	--
lb/hr as NO_2	8.496	25.0[1]
lb/day as NO_2	203.9	250.0[1]

Note: Averages of Runs 2-4.

TABLE 4-1
SUMMARY OF TEST RESULTS
DIAMOND WALNUT GROWERS, INC.
WALNUT SHELL-FIRED BOILER

Test No.:	Run 1	Run 2	Run 3	Average (Runs 1-3)
Date:	9/10/03	9/10/03	9/10/03	--
Time:	1404-1455	1504-1552	1557-1645	--
Steam Production:				
klb/hr	55.0	55.0	55.0	55.0
% of rated capacity	91.7	91.7	91.7	91.7
Flue Gas:				
Flow rate, dscfm	13,640	13,375	13,644	13,553
Temperature, °F	320.3	317.8	318.2	318.8
O_2, % volume dry	3.211	3.145	3.022	3.126
CO_2, % volume dry	16.44	16.35	16.50	16.43
Moisture, %	13.7	13.5	14.9	14.0
CO Emissions:				
ppm volume dry	5,697	5,310	5,984	5,664
ppmvd @ 3% O_2	5,764	5,354	5,991	5,703
lb/hr	344	315	362	340
lb/day	8,256	7,549	8,677	8,161
NO_X Emissions:				
ppm volume dry	89.59	93.30	89.94	90.94
ppmvd @ 3% O_2	90.66	94.06	90.05	91.59
lb/hr as NO_2	8.890	9.078	8.927	8.965
lb/day as NO_2	213.3	217.9	214.2	215.2

TABLE 1-1
RESULTS SUMMARY
NO_x EMISSIONS TESTS
DIAMOND WALNUT GROWERS, INC.
WALNUT SHELL-FIRED BOILER
NOVEMBER 17, 2004

Parameter	Average	Permit Limits
Steam Production:		
Flow, klb/hr	56.0	--
rated capacity, %	93.3	--
Flue Gas:		
Flow rate, dscfm	11,917	--
Temperature, °F	302.9	--
O_2, % volume dry	3.162	--
CO_2, % volume dry	17.12	--
Moisture, %	13.64	--
NO_X Emissions:		
ppm volume dry	99.73	--
ppmvd @ 3% O_2	100.64	--
lb/hr as NO_2	8.65	25.0
lb/day as NO_2	207.6	250.0

Note: 1) Results of individual test runs are listed in section 4.0.
2) Lb/day results are calculated based on a 24-hour operating period.

TABLE 1-1
RESULTS SUMMARY
EMISSIONS TESTS
DIAMOND WALNUT GROWERS, INC.
WALNUT SHELL-FIRED BOILER
OCTOBER 25, 2005

Parameter	Average	Permit Limits
Steam Production:		
Flow, klb/hr	55.5	--
rated capacity, %	92.5	--
Flue Gas:		
O_2, % volume dry	5.197	--
CO_2, % volume dry	14.71	--
Moisture, %	11.812	--
Temperature, °F	337.2	--
Flow rate, dscfm	13,808	--
NO_X Emissions:		
ppm volume dry	77.70	--
ppmvd @ 3% O_2	88.59	--
lb/hr as NO_2	7.80	25.0
lb/day as NO_2	187.28	250.0
PM Emissions:		
gr/dscf	0.0020	0.015
gr/dscf @ 12% CO_2	0.0016	0.1
lb/hr	0.239	2.2
lb/day	5.73	10.2

Note: 1) Results of individual test runs are listed in section 4.0.
2) Lb/day results are calculated based on a 24-hour operating period.

Appendix VI

Potential Emissions Calculations

Potential Emissions from Permit Unit N-285-106-3

Heat Input

20.0 MMBtu/hr

Emission Factors (EF)

ATC N-285-106-3 lists the following emission factors:

NOx: 9.0 ppmvd @ 3% O_2; CO: 50 ppmvd @ 3% O_2
PM_{10}: 0.0076 lb/MMBtu; SOx: 0.00285 lb/MMBtu; VOC: 0.0055 lb/MMBtu

NOx and CO limits are converted from ppmvd @ 3% O_2 to lb/MMBtu as follows:

$$NOx = \frac{(9.0)\times\left(8{,}578\ \frac{dscf}{MMBtu}\right)\times\left(46\ \frac{lb}{lb-mol}\right)\times\left(\frac{20.9}{20.9-3}\right)}{\left(379.5\ \frac{dscf}{lb-mol}\right)\times(10^6)} = 0.011\ \frac{lb}{MMBtu}$$

$$CO = \frac{(50)\times\left(8{,}578\ \frac{dscf}{MMBtu}\right)\times\left(28\ \frac{lb}{lb-mol}\right)\times\left(\frac{20.9}{20.9-3}\right)}{\left(379.5\ \frac{dscf}{lb-mol}\right)\times(10^6)} = 0.037\ \frac{lb}{MMBtu}$$

Potential Emissions (PE)

PE_{NOx} = 0.011 lb/MMBtu × 20.0 MMBtu/hr × 8,760 hr/yr = 1,927 lb/yr
PE_{CO} = 0.037 lb/MMBtu × 20.0 MMBtu/hr × 8,760 hr/yr = 6,482 lb/yr
PE_{PM10} = 0.0076 lb/MMBtu × 20.0 MMBtu/hr × 8,760 hr/yr = 1,332 lb/yr
PE_{SOx} = 0.00285 lb/MMBtu × 20.0 MMBtu/hr × 8,760 hr/yr = 499 lb/yr
PE_{VOC} = 0.0055 lb/MMBtu × 20.0 MMBtu/hr × 8,760 hr/yr = 964 lb/yr

Quarterly Emissions (QE)

QE = PE lb/yr ÷ 4 qtr/yr

Pollutant	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
NOx	481	482	482	482
CO	1,620	1,620	1,621	1,621
PM_{10}	333	333	333	333
SOx	124	125	125	125
VOC	241	241	241	241

Appendix VII

Section from '2006 PM10 Plan'

4.4.2 Solid-Fueled Boilers, Steam Generators and Process Heaters (Rule 4352)

REASON FOR CONTROL MEASURE: NOx emissions from solid fuel fired boilers, steam generators, and process heaters exceed the "de minimis threshold" levels and are therefore subject to federal BACM requirements.

AFFECTED SOURCES: The SJVAB has 14 permitted units in this category, with half of the units located in the District's Southern Region and the remaining units split between the Central and Northern Regions. Facilities in this category generate utility and industrial power (electricity and heat) by burning petroleum coke, municipal solid waste, or biomass wastes (including wood, vine clippings, leaves, grass, and other by products of the farming and food processing industries).

DESCRIPTION: The District's permitting process has established limits for both NOx and PM10 emissions, and Rule 4352 (Solid Fuel-Fired Boilers, Steam Generators, and Process Heaters) regulates the NOx emissions from these units. BACM emission controls appropriate for solid fuel fired units include low excess air, low NOx burners, selective non-catalytic ammonia injection, thermal de-NOx, and limestone injection. All units subject to Rule 4352 are currently equipped with BACM; therefore, Rule 4352 will not be amended to strengthen emission limitations.

Rule 4352, however, currently contains the old definition and threshold for major NOx source. The rule needs to be amended to include the current major source threshold and ensure that all major sources are subject to this rule.

IMPLEMENTATION SCHEDULE: Rule 4352 will be amended to incorporate the correct definition for major source during the second quarter of 2006.

EMISSIONS AND EMISSIONS REDUCTION: All units are already equipped with BACT controls, so no further emission reductions are expected from this action.

4.4.3 School Bus Fleets (Rule 9310)

REASON FOR CONTROL MEASURE: The California Clean Air Act requires districts to develop attainment plans that consider "the full spectrum of emission sources and focus particular attention on reducing emissions from transportation and area-wide emission sources" (Health and Safety Code, Section 40910). In particular, districts responsible for air basins designated as having "serious," "severe," or "extreme" air pollution "shall, to the extent necessary to meet the requirements of the plan..." include in their attainment plans "[m]easures to achieve the use of a significant number of low-emission motor vehicles by operators of motor vehicle fleets" [Health and Safety Code section 40919(a)(4)]. Rule 9310, which is currently under development, represents the District's emerging program for controlling mobile source emissions.

Appendix VIII

Section from '2007 Ozone Plan (Draft)'

Solid Fuel Boilers, Steam Generators, and Process Heaters (S-COM-4)

(Electric Utilities, Cogeneration, Service and Commercial)

Source Category:

This source category includes facilities that operate boilers, steam generators, and process heaters (units) that are fired on solid fuel. These units are used in facilities that generate utility and industrial power (electricity and heat) by burning solid fuels including petroleum coke, coal, municipal solid wastes, tires, or biomass wastes.

Emissions Inventory:

With current controls and regulations: does not reflect reductions from proposed controls.

Tons per day – summer season

Pollutant	2005	2008	2011	2012	2014	2017	2020	2023
NOx	4.0	4.0	4.1	4.1	4.1	4.1	4.2	4.2
VOC	0.406	0.408	0.409	0.409	0.409	0.411	0.413	0.413

ARB emissions inventory needs to be validated to account for NOx reductions resulting from existing boiler permit NOx limits as well as current Rule 4352 limits.

- EICs Affected: 010-005-0214; 010-005-0240; 010-005-0243; 010-005-0254; 020-005-0214; 020-005-0218; 020-005-0220; 020-005-0230; 060-005-0250

Current Control: District Rule 4352 requires municipal solid waste units to meet a NOx limit of 200 ppmv @ 12% CO2. For all other units the NOx limits is 115 ppmv @ 3% O2.

Future Control Options:

- Current BACT is selective non-catalytic reduction (SNCR) with ammonia injection for municipal waste-fired or biomass-fired boilers. Sources subject to Rule 4352 are already operating at or below the limits by using this control technology.
- Reexamine if the NOx emission limits from Sacramento AQMD (70 ppmv) or ARB recommendations (40 ppmv) are achievable for this source category.
- There is some increased use of selective catalytic reduction SCR with ammonia injection in new coal-fired boilers in eastern states in the nation. European Best Available Technology (BAT) listed SCR for coal and lignite firing boilers.
- There are no biomass-fired or municipal waste-fired boilers that are currently using SCR in the nation or in Europe.
- Coal -fired units are not comparable to the District's biomass fired or municipal solid waste fired boilers, which are non-homogenous fuel and therefore higher emission variability.
- Further research would need to be conducted to determine if SCR could be retrofitted to the existing boilers or if they also need combustion retrofits that would require boiler rebuilds.

Discussion:

- These sources are located at stationary sources for which the District has legal authority to regulate air emissions.

Solid Fuel Boilers, Steam Generators, and Process Heaters
(Continued)

- Rule 4352 was recently amended to implement BARCT and All Feasible Control Measure as a commitment in the District's One-hour Extreme Ozone Attainment Demonstration Plan. A discussion of possible NOx emission levels and controls was included in the analysis for that rule amendment project.
- Facilities subject to Rule 4352 operate boilers that burn locally generated agricultural waste and municipal waste materials as well as waste materials imported into the Valley. Continued operation of these facilities is important to reduce emissions from open burning.

Recommendation:

- District staff recommends this source category as control measure for further study to determine if SCR could be retrofitted to existing biomass and municipal waste fired boilers.
- If SCR retrofit is feasible consider including an alternate compliance option as part of this control measure to improve cost effectiveness.
- Based on the current emissions inventory or lack thereof, control level, and existing technology, emission reductions are not quantifiable for this source category. However a future study to re-evaluate this source category is planned.

Projected Reductions:

With recommended controls

Tons per day – summer season

Pollutant	2008	2011	2012	2014	2017	2020	2023
NOx	NQ	NQ	NQ	NQ	NQ	NQ	NQ
VOC	NQ	NQ	NQ	NQ	NQ	NQ	NQ

Jim Swaney

From: Tom Goff
Sent: Monday, April 23, 2007 2:11 PM
To: Jim Swaney; Arnaud Marjollet; Samir Sheikh
Cc: Allan Phillips; Leonard Scandura
Subject: FW: ERC / offset question for you
Importance: High

To ensure that the reduction is "real", I think that the AER is equal to the HAE of the shutdown boiler minus the PE of the remaining boiler (see Rule 2201 4.12). This logic would apply for all pollutants, regardless of the fact that they provided NOx/VOC offsets for the "new boiler".

The fact that they originally provided NOx and VOC offsets for the new boiler doesn't really enter into the ERC quantification for the cogen. to be shutdown. When they got the new boiler permitted for full time operation, offset were required for it. That NSR permitting action has no bearing on subsequent banking actions. The actual emissions from the full time boiler could go up as a result of shutting down the cogen. - it makes no difference whether or not it is permitted for full time operation. As far as getting the ERCs "back", they couldn't get them back anyhow, they were required as a condition of getting the new boiler approved for full time operation.

We need to quantify the actual emission reduction as prescribed in 2201 4.12, AER = HAE - PE.

At some point in the future when they shutdown the full time boiler they may apply to re-bank the surplus portion of the qualifying ERC's originally withdrawn to obtain the permit for the full time boiler (see 2301 4.3).

> -----Original Message-----
> **From:** Jim Swaney
> **Sent:** Monday, April 23, 2007 11:44 AM
> **To:** Tom Goff; Samir Sheikh; Arnaud Marjollet
> **Cc:** Rupi Gill
> **Subject:** ERC / offset question for you
>
> I have a different scenario to run by you:
>
> We have a company with a cogen boiler they have shutdown and applied for ERC's for. They had a backup boiler that was replaced a couple of years back with a new boiler. The new boiler was originally permitted as a backup to the cogen, but was then modified to be a full time unit. As the facility was a major source for NOx and VOC, they fully offset those 2 pollutants when permitting the boiler as a full time unit (they are under the offset threshold for all other pollutants.
>
> As they have a replacement steam source on site (the new boiler), to make the ERC real, we need to "discount" the amount of credits by the potential of the new boiler (i.e., if the cogen would result in 2,000 lb/yr of ERC, but the boiler had a potential of 500 lb/year, we could only give 1,500 lb/yr as ERC).
>
> This works for CO, SOx and PM10. However, as the boiler is fully offset for NOx and VOC, I don't think we need to discount (as they have not asked for those credits back).
>
> Let me know if you agree or disagree with my position. Thanks.