



DEC - 9 2009

Ken Zeiders
Shafter-Wasco Ginning Co
P. O. Box 1567
Shafter, CA 93267

Re: Notice of Preliminary Decision - Emission Reduction Credits
Project Number: S-1094920

Dear Mr. Zeiders:

Enclosed for your review and comment is the District's analysis of Shafter-Wasco Ginning Co's application for Emission Reduction Credits (ERCs) resulting from the shutdown of a permitted cotton ginning operation, at the intersection of Bender and Central Valley Highway in Shafter, California. The quantity of ERCs proposed for banking is 13 lb-VOC, 232 lb-NO_x, 348 lb-CO, 4695 lb-PM₁₀, and 19 lb-SO_x all in the 4th Quarter.

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. Steve Davidson of Permit Services at (661) 392-5618.

Sincerely,

David Warner
Director of Permit Services

DW:SDD/lis

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



DEC - 9 2009

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: S-1094920

Dear Mr. Tollstrup:

Enclosed for your review and comment is the District's analysis of Shafter-Wasco Ginning Co's application for Emission Reduction Credits (ERCs) resulting from the shutdown of a permitted cotton ginning operation, at the intersection of Bender and Central Valley Highway in Shafter, California. The quantity of ERCs proposed for banking is 13 lb-VOC, 232 lb-NOx, 348 lb-CO, 4695 lb-PM10, and 19 lb-SOx all in the 4th Quarter.

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DEC - 9 2009

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: S-1094920

Dear Mr. Rios:

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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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**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 to Shafter-Wasco Ginning Co for the shutdown of a permitted cotton ginning operation, at the intersection of Bender and Central Valley Highway in Shafter, California. The quantity of ERCs proposed for banking is 13 lb-VOC, 232 lb-NOx, 348 lb-CO, 4695 lb-PM10, and 19 lb-SOx all in the 4th Quarter.

The analysis of the regulatory basis for this proposed action, Project #S-1094920, is available for public inspection at http://www.valleyair.org/notices/public_notices_idx.htm and 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, 34946 FLYOVER COURT, BAKERSFIELD, CA 93308.**

San Joaquin Valley Air Pollution Control District
ERC Application Final Review
Cotton Gin

Facility Name: Shafter-Wasco Ginning Co.

Date: 11/18/09

Mailing Address: P. O. Box 1567
Shafter, CA 93267

Engineer: Steve Davidson

Lead Engineer: Rich Karrs

Contact Person: Ken Zeiders

RWK 11/18/09

Telephone: (661) 746-6321

Project #: S-1094920

Submitted: September 30, 2009

Deemed Complete: October 8, 2009

I. Summary:

The primary business of this facility is cotton ginning. Shafter-Wasco Ginning company has surrendered Permit to Operate S-539-1-6 following the permanent shutdown of their operation as of September, 2009 and submitted an application to bank the emission reduction credits (ERCs) for the decreased emissions. A copy of the surrendered Permit to Operate (PTO) is included in Appendix A of this report.

The following emission reductions have been found to qualify for ERC banking certificates S-3268 -1 (VOC), S-3268 -2 (NOx), S-3268-3 (CO), S-3268-4 (PM₁₀), and S-3268-5 (SOx):

Summary of ERC Amounts					
	VOC	NOx	CO	PM ₁₀	SOx
ERC Number	S-3268-1	S-3268-2	S-3268-3	S-3268-4	S-3268-5
4 th Quarter	13	232	348	4695	19

II. Applicable Rules:

Rule 2201 New and Modified Stationary Source Review Rule (9/21/06)

Rule 2301 Emission Reduction Credit Banking (12/17/92)

III. Location of Reduction:

The physical location of the equipment involved with this application is at the intersection of Bender and Central Valley Highway in Shafter, California.

IV. Method of Generating Reductions:

The emissions reduction is generated by the shutdown of a permitted cotton ginning operation. The gin includes two wagon suction assemblies served by three 42" dia 1D/3D cyclones, Three high slip dryers (one 6 MMBtu/hr and two 3 MMBtu/hr heaters) with four incline cleaners, two stick machines, one Airline separator all served by four 38" dia 1D/3D cyclones and four 42" dia 1D/3D cyclones, Three gin stands with feeders served by two 36" dia 1D/3D cyclones, and three double (six total) Continental 16D model 94 lint cleaners with each served by two 58" dia 1D/3D cyclone (six total). Overflow system served by two 36" dia 1D/3D cyclones. Battery condenser served by two 72" dia cyclones and 2 MMBtu/hr natural gas fired humidifier, Motes system including mote cleaner, mote press, and 50 hp blower served by 86" dia 1D/3D cyclone, One seed storage area served by a cyclone. The gin was limited by permit condition to a ginning rate of 720 bales per day 129,600 bales/year. The applicant surrendered their PTOs on October 30, 2009 as part of this application.

V. Calculations:

A. Assumptions and Emission Factors

Assumptions:

- Annual emissions will be rounded to the nearest pound in accordance with District Policy APR-1105 (dated 7/16/1992).
- The exhaust from the burners flows through the process air and exits at the cyclone collectors. In this case, PM₁₀ amounts exhausted from the cyclones and filter houses include emissions from both the burners and the ginning process. Therefore, the ginning PM₁₀ emissions are not added to those calculated for the burners to determine the HAE.
- Bales are standardized to 500 lb/bale.
- The gins operated only in the 4th quarter.
- Natural Gas Heating Value is 1,000 Btu/scf (District Policy APR-1720, dated 12/20/01).
- One therm of natural gas is equal to 0.100 MMBtu.
- F-Factor for Natural Gas is 8,578 dscf/MMBtu corrected to 60°F (40 CFR 60, Appendix B).

Emission Factors (EF):

Combustion Emission Factors:

The gin is equipped with slip dryers (one 6 MMBtu/hr and two 3 MMBtu/hr heaters) to provide heated air to control the moisture content of the cotton. The fuel usage

information provided by the facility indicates that natural gas was combusted for the last ten years of operation prior to submittal of this application. ERCs are also requested for the shutdown of the dryers.

The following emission factors from permitting the permitting action associated with project S-1031553 will be used to determine the facility's combustion emissions.

Natural Gas Emission Factors	
Pollutant	EF (lb/MMBtu)
VOC	0.006
NO _x	0.1
CO	0.15
SO _x	0.008
PM10 ^a	Note below & assumptions

^a Since the dryers' combustion is discharged through the filter houses and cyclones, then its PM10 emissions will be included with the ginning emissions.

Ginning Emission Factors:

The PM10 emission factors in the current PTOs were based on average emission factors from the California Cotton Ginners Association (CCGA) handbook. The current PTO lists the overall PM10 emission rate to 0.635 lb/bale.

B. Baseline Period Determination and Data

Per Section 3.8 of District Rule 2201, Baseline Period is defined as: a) two consecutive years of operation immediately prior to submission of the complete application; or b) another time period of at least two consecutive years within the five years immediately prior to submission of the complete application as determined by the APCO as more representative of normal operation. District Rule 2301 - "Emissions Reduction Credit Banking" defines Baseline Period as "the same period as in Rule 2201".

The date of the shutdown and the baseline period were determined in accordance with District Policy APR-1805 (dated 9/9/92) and APR 1810 (revised draft dated 3/18/09). The date of shutdown for permitted sources shall be the date of surrender of the operating permits, unless otherwise determined as stated in the policy. The applicant surrendered their PTO on June 22, 2009 as part of this application. The applicant has provided the historical ginning records for the 1999 to 2007 ginning seasons. There was no production in 2008.

Historical Records					
Cotton Gin Throughput					
Year	Bale Production Rate (bales/yr)	2-Yr Block Difference from NSO	3-Yr Block Difference from NSO	4-Yr Block Difference from NSO	5-Yr Block Difference from NSO
1999	10,579				
2000	9558	1982			
2001	10,982	2184	2287		
2002	9388	2099	1890	2040	
2003	8626	921	1579	1552	1700
2004	10,377	1415	1377	1757	693
2005	4523	636	244	142	609
2006	4471	3589	1629	1087	1632
2007	4273	3714	3664	2175	3358
2008 ^a	0				
NSO Average^b	8086				

^a Facility did not operate.

^b 2008 is not representative of normal operation; therefore excluded from the average and baseline average.

The baseline period was determined by comparing the average throughput from 2, 3, 4 and 5 year blocks to the normal source operation (NSO) average throughput and selecting the block that most closely matched.

The 4-year block difference from the NSO is the closest to zero in 2005; therefore, the baseline period for the bale production rate is 2002 through 2005.

Historical Records					
Natural Gas Usage					
Year	Natural Gas Usage (therms/yr)	2-Yr Block Difference from NSO	3-Yr Block Difference from NSO	4-Yr Block Difference from NSO	5-Yr Block Difference from NSO
1999	25,875				
2000	22,579	1545			
2001	34,960	2998	2033		
2002	31,771	7594	3998	3025	
2003	28,398	4313	5938	3655	5090
2004	36,602	6728	6485	7161	4600
2005	20,126	2592	2604	3453	1241
2006	18,167	6625	807	52	2420
2007	13467	9955	8518	3681	8099
2008 ^a	0				
NSO Average^b	25,772				

^a Facility did not operate.

^b 2008 is not representative of normal operation; therefore excluded from the average and baseline average

The 4-year block difference from the NSO is the closest to zero in 2006; therefore, the baseline period for the bale production rate is 2003 through 2006.

Much of the acreage that provided the gin with cotton in the past has been retired (several hundred thousand acres are being taken out of production in Kern County due to water concerns) or replaced with almonds or pistachios or forage crops for the dairies. This has resulted in a reduction in cotton acreage. The acreage of cotton grown in Kern County has significantly and consistently declined since 1999, as indicated in the table provided by the applicant (Appendix C).

In summary, the following baseline data will be used in the calculation of ERCs for this ERC banking project:

Gin: 8216 bales/yr
Natural Gas Usage: 25,823 therms/yr

C. Historical Actual Emissions (HAE)

Historical Actual Emissions (HAE) are emissions having actually occurred during the baseline period and are calculated per Rule 2201, Section 3.22. The facility only operated during the 4th quarter of the baseline period; therefore, all HAE are attributed to the 4th quarter.

PM₁₀:

The HAE is calculated based on the emission factor discussed in Section V.A of this evaluation and the average baling rate during the baseline period discussed in Section V.B.

Gin Throughput:

$$\begin{aligned} 4^{\text{th}} \text{ Qtr, HAE for PM}_{10} &= 0.635 \text{ lb-PM}_{10}/\text{bale} \times 8216 \text{ bales/qtr} \\ &= \mathbf{5,217 \text{ lb-PM}_{10}/\text{qtr}} \end{aligned}$$

Natural Gas Combustion -- VOC, NO_x, CO, and SO_x:

The HAE is calculated using emission factors for natural gas combustion from project 1031553 except SO_x (see Section V(A) above) and the average natural gas use during the baseline period. The cotton gin was only operated during the fourth quarter of each year.

Historical Average Natural Gas Usage (therms/yr) = 25,823 therms/yr

Conversion (therms/yr to MMBtu/yr):

$$(25,823 \text{ therms/yr}) \times (0.1 \text{ MMBtu/therm}) = 2582 \text{ MMBtu/yr}$$

Historical Average Natural Gas Usage (MMBtu/yr) = 2582 MMBtu/yr

HAE_{NG} (lb/qtr) = EF_{NG} (lb/MMBtu) x Historical Natural Gas Usage (MMBtu/yr) x (Days of Operation/qtr ÷ Total Days of Operation)

$$\begin{aligned} 4^{\text{th}} \text{ Qtr, HAE for VOC}_{\text{NG}} \text{ (lb/qtr)} &= (0.006 \text{ lb-VOC/MMBtu}) \times 2582 \text{ MMBtu/yr} \\ &= \mathbf{15 \text{ lb-VOC/qtr}} \end{aligned}$$

$$\begin{aligned} 4^{\text{th}} \text{ Qtr, HAE for NO}_{x\text{NG}} \text{ (lb/qtr)} &= (0.1 \text{ lb-NO}_x/\text{MMBtu}) \times 2582 \text{ MMBtu/yr} \\ &= \mathbf{258 \text{ lb-NO}_x/\text{qtr}} \end{aligned}$$

$$\begin{aligned} 4^{\text{th}} \text{ Qtr, HAE for CO}_{\text{NG}} \text{ (lb/qtr)} &= (0.15 \text{ lb-CO/MMBtu}) \times 2582 \text{ MMBtu/yr} \\ &= \mathbf{387 \text{ lb-CO/qtr}} \end{aligned}$$

$$\begin{aligned} 4^{\text{th}} \text{ Qtr, HAE for SO}_{x\text{NG}} \text{ (lb/qtr)} &= (0.008 \text{ lb-SO}_x/\text{MMBtu}) \times 2582 \text{ MMBtu/yr} \\ &= \mathbf{21 \text{ lb-SO}_x/\text{qtr}} \end{aligned}$$

Because the exhaust from the burners flows through the process air and exits at the cyclone collectors, PM₁₀ amounts exhausted from the cyclones include emissions from the dryers and the ginning process. Therefore, the PM₁₀ emissions from the dryers are not added to those calculated for the ginning operation to determine the HAE.

The HAE for the facility is summarized in the following table:

HAE Summary	
Pollutant	4 th Qtr. HAE (lb/qtr)
VOC	15
NO _x	258
CO	387
SO _x	21
PM10	5217

D. Adjustments to HAE

Pursuant to Section 3.22 of Rule 2201, Historical Actual Emissions must be discounted for any emissions reduction which is:

- required or encumbered by any laws, rules, regulations, agreements, orders, or
- attributed to a control measure noticed for workshop, or proposed or contained in a State Implementation Plan, or
- proposed in the District Air Quality Plan for attaining the annual reductions required by the California Clean Air Act.

Emissions Adjusted for Rule 4201 - Particulate Matter Concentration:

According to Section 3.0 particulate matter (PM) emissions from each source operation should not exceed 0.1 grains per cubic foot of gas at dry standard conditions. The calculation is based on the bales/day ginning rate and the airflow through the control device. Based on similar projects and the CCGA handbook the grain loading of 1D/3D and 2D/2D cyclones do not exceed 0.1 gr/dscf; therefore, no adjustment is necessary.

Emissions Adjusted for Rule 4202 Particulate Matter - Emission Rate (12/17/92):

District Rule 4202, Section 4.0 limits emissions based on process weight. The calculation is based on the bale throughput and the emissions per cyclone. The maximum emissions rate per control device is calculated as follows:

$$\begin{aligned} \text{Process Rate (P)} &= (720 \text{ bales/day}) \times (500 \text{ lbs/bale}) \times (1 \text{ ton}/2000\text{lb}) \times (1 \text{ day}/24 \text{ hours}) \\ P &= 180 \text{ tons/day} = 7.5 \text{ tons/hour} \end{aligned}$$

The emissions limit (E), per District Rule 4202, is calculated as follows:

$$\begin{aligned} E &= 3.59 \times P^{0.62} \text{ (when } P < \text{ or } = 30 \text{ ton/hr)} \\ &= 3.59 \times (7.5)^{0.62} \\ &= 12.5 \text{ lb-PM/hr} \end{aligned}$$

Based on similar projects and the CCGA handbook the emissions per control device is less than 12.5 lb-PM₁₀/hr; therefore, no adjustment is necessary.

Emissions Adjusted for Rule 4204 - Cotton Gins:

Rule 4204 Cotton Gins was adopted on February 17, 2005 and requires cotton gins to use 1D-3D cyclones, with emissions equivalent to the emission factors from the latest revision of the CCGA handbook, by July 1, 2008. Pursuant to Section 3.22 of Rule 2201, Historical Actual Emissions must be discounted for any emissions reduction which is required or encumbered by any laws, rules, regulations, agreements, orders, or, proposed in the District Air Quality Plan for attaining the annual reductions required by the California Clean Air Act.

All systems of cotton gins were controlled by 1D-3D cyclones and filter houses. Therefore, no adjustments are needed for these systems.

Emissions Adjusted for Rule 4309 - Dryers, Dehydrators, and Ovens:

District Rule 4309 Dryers, Dehydrators, and Ovens (12/15/05), Section 4.1.6 specifically exempts units used to dry lint cotton or cotton at cotton gins. The dryers at this facility are used to dry cotton; therefore, no adjustment is necessary.

Emissions Adjusted for Rule 4801 - Sulfur Compounds:

District Rule 4801 requires that a person shall not discharge into the atmosphere sulfur compounds, which would exist as a liquid or gas at standard conditions, exceeding in concentration at the point of discharge: 0.2 % by volume calculated as SO₂, on a dry basis averaged over 15 consecutive minutes.

Using the ideal gas equation and the emission factors presented in Section V.A, the sulfur compound emissions are calculated as follows:

$$\text{SO}_x \text{ EF} = 0.008 \text{ lb-SO}_x/\text{MMBtu}$$

$$\text{Volume SO}_2 = \frac{n \times R \times T}{P}$$

With:

N = moles SO₂

T (Standard Temperature) = 60 °F = 520 °R

P (Standard Pressure) = 14.7 psi

$$R \text{ (Universal Gas Constant)} = \frac{10.73 \text{ psi} \cdot \text{ft}^3}{\text{lb} \cdot \text{mol} \cdot \text{°R}}$$

EPA F-Factor for Natural Gas: 8,710 dscf/MMBtu at 68 °F, equivalent to

$$\text{Corrected } F - \text{ factor} = \left(\frac{8,710 \text{ dscf}}{\text{MMBtu}} \right) \times \left(\frac{60^\circ F + 459.6}{68^\circ F + 459.6} \right) = 8,578 \frac{\text{dscf}}{\text{MMBtu}} \text{ at } 60^\circ F$$

$$\frac{0.008 \cdot \text{lb} - \text{SO}_x}{\text{MMBtu}} \times \frac{\text{MMBtu}}{8,578 \text{ dscf}} \times \frac{1 \text{ lb} \cdot \text{mol}}{64 \text{ lb}} \times \frac{10.73 \text{ psi} \cdot \text{ft}^3}{\text{lb} \cdot \text{mol} \cdot ^\circ R} \times \frac{520^\circ R}{14.7 \text{ psi}} \times \frac{1,000,000 \cdot \text{parts}}{\text{million}} = 5.53 \frac{\text{parts}}{\text{million}}$$

$$\text{Sulfur Concentration} = 5.53 \frac{\text{parts}}{\text{million}} < 2,000 \text{ ppmv (or 0.2\%)}$$

Since the sulfur concentration of the natural gas fuel is less than 2,000 ppmv, no adjustment is needed.

Total Adjusted Historical Actual Emissions (HAE):

There were no adjustments made to the Historical Actual Emissions for NO_x, SO_x, PM₁₀, CO, or VOC.

E. Actual Emissions Reductions (AER)

Per Rule 2201, Section 4.12, the Actual Emissions Reductions due to shutdown of an emissions unit is equal to the HAE – PE2.

AER = HAE – PE2

4th Quarter Actual Emissions Reductions:

- AER_{VOC} (lb/yr) = 15 lb-VOC/qtr – 0 lb-VOC/qtr = 15 lb-VOC/qtr
- AER_{NO_x} (lb/yr) = 258 lb-NO_x/qtr – 0 lb-NO_x/qtr = 258 lb-NO_x/qtr
- AER_{CO} (lb/yr) = 387 lb-CO/qtr – 0 lb-CO/qtr = 387 lb-CO/qtr
- AER_{PM₁₀} (lb/yr) = 5217 lb-PM₁₀/qtr – 0 lb-PM₁₀/qtr = 5217 lb-PM₁₀/qtr
- AER_{SO_x} (lb/yr) = 21 lb-SO_x/qtr – 0 lb-SO_x/qtr = 21 lb-SO_x/qtr

Actual Emission Reductions (AER)				
Pollutant	1st Qtr. AER (lb/qtr)	2nd Qtr. AER (lb/qtr)	3rd Qtr. AER (lb/qtr)	4th Qtr. AER (lb/qtr)
VOC	0	0	0	15
NO _x	0	0	0	258
CO	0	0	0	387
PM ₁₀	0	0	0	5217
SO _x	0	0	0	21

F. Air Quality Improvement Deduction

The Air Quality Improvement Deduction (AQID) is 10% of the AER per Rule 2201, Sections 3.5 and 4.12.1, and is summarized as follows:

Air Quality Improvement Deduction (AQID)				
Pollutant	1st Qtr. AQID (lb/qtr)	2nd Qtr. AQID (lb/qtr)	3rd Qtr. AQID (lb/qtr)	4th Qtr. AQID (lb/qtr)
VOC	0	0	0	2
NO _x	0	0	0	26
CO	0	0	0	39
PM ₁₀	0	0	0	522
SO _x	0	0	0	2

G. Increases in Permitted Emissions (IPE)

No IPE is associated with this project.

H. Bankable Emissions Reductions Credits

The bankable emissions reductions credits, presented in following table, are determined by subtraction of the Air Quality Improvement Deduction (discussed in Section V.F) from the AER. The emission reductions occurred in the fourth quarters.

Bankable Emissions Reductions Credits (ERCs)				
Pollutant	1st Qtr ERCs (lb/qtr)	2nd Qtr ERCs (lb/qtr)	3rd Qtr ERCs (lb/qtr)	4th Qtr ERCs (lb/qtr)
VOC	0	0	0	13
NO _x	0	0	0	232
CO	0	0	0	348
PM ₁₀	0	0	0	4695
SO _x	0	0	0	19

VI. Compliance:

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

A. Real

The emissions reductions were generated by the shutdown of the cotton ginning equipment. The emissions reductions were calculated from actual historic production data and recognized emission factors. Therefore, the emissions reductions are real.

B. Enforceable

The PTOs for this facility have been surrendered and the cotton gins cannot be operated without valid PTOs. Therefore, the emissions reductions are enforceable.

C. Quantifiable

Reduction amounts were calculated from actual historic production data, recognized emissions factors (CCGA emission factors) and methods according to District Rule 2201. Therefore, the reductions are quantifiable.

D. Permanent

The gin has been shutdown, and the PTOs have been surrendered. As discussed in Section V(B) above, the overall trend of cotton acreage has declined in the last few years and is expected to decline in the future. As a result, many of the permitted cotton gins in Kern County have shut down. Therefore, it can be determined that the cotton that was being processed at the Kern Delta-Weedpatch Ginning Company is no longer being grown nor the cotton is being transferred to another facility and the emissions reductions in this project are permanent.

E. Surplus

To be considered surplus, Actual Emission Reductions shall be in excess, at the time the application for an Emission Reduction Credit or an Authority to Construct authorizing such reductions is deemed complete, of any emissions reduction which:

- Is required or encumbered by any laws, rules, regulations, agreements, orders, or

No laws, rules, regulations, agreements or orders were responsible for the surrendering the facility's permits or their subsequent application for Emission Reduction Credits (ERC's).

- Is attributed to a control measure noticed for workshop, or proposed or contained in a State Implementation Plan, or

Currently there are no control measures noticed for workshop, or proposed or contained in a State Implementation Plan that require the reduction of the emissions at this facility.

- Is proposed in the APCO's adopted air quality plan pursuant to the California Clean Air Act.

The shutdown of cotton gins is not proposed in the APCO's adopted air quality plan.

Shutdown of the gin was voluntary and not required by any law, rule, agreement, or regulation. These ERCs are not needed for their current or proposed operations. By using 0.635 lb-PM₁₀/bale in our calculations for AER, we have assured that no credit was given for emissions that may have been in excess of the permitted limits. Therefore, the reductions are surplus.

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

The emission reduction credits generated by the shutdown of the cotton ginning operations were not used for the approval of any Authority to Construct or as offsets.

G. Timely submittal

Section 5.5 of Rule 2301 – Emissions Reduction Credit Banking (12/17/92) states that ERC certificate applications for reductions shall be submitted within 180 days after the emission reduction occurs. The ERC application was received on September 30, 2009. The applicant surrendered the PTOs and permanently ceased operations at this location on September 30, 2009. Therefore, the application was submitted in a timely fashion.

VII. Recommendation:

Based on the preceding analysis, issue Emission Reduction Credit Certificate to Shafter Wasco Ginning Company after completion of the required 30-day public notification period, and review of comments received, for the following amounts:

Summary of ERC Amounts					
	VOC	NO _x	CO	PM ₁₀	SO _x
ERC Number	S-3268-1	S-3268-2	S-3268-3	S-3268-4	S-3268-5
1 st Quarter	0	0	0	0	0
2 nd Quarter	0	0	0	0	0
3 rd Quarter	0	0	0	0	0
4 th Quarter	13	232	348	4695	19

List of Appendixes

- A. Permits to Operate
- B. Annual Records
- C. Support Information
- D. Draft Emission Reduction Certificates

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Appendix A

Permit to Operate S-539-1-6

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-539-1-6

EXPIRATION DATE: 11/30/2014

SECTION: 05 TOWNSHIP: 28S RANGE: 25E

EQUIPMENT DESCRIPTION:

COTTON GIN WITH TWO WAGON SUCTION ASSEMBLIES, THREE HIGH SLIP DRYERS (ONE 6 MMBTU/HR AND TWO 3 MMBTU/HR HEATERS), FOUR INCLINE CLEANERS, TWO STICK MACHINES, ONE AIRLINE SEPARATOR ALL , THREE GIN STANDS WITH FEEDERS, THREE DOUBLE (SIX TOTAL) CONTINENTAL 16D MODEL 94 LINT CLEANERS, OVERFLOW SYSTEM, BATTERY CONDENSER, MOTES SYSTEM (INCLUDING MOTE CLEANER, MOTE PRESS), AND ONE SEED STORAGE AREA

PERMIT UNIT REQUIREMENTS

1. The two wagon suction assemblies shall be controlled by three 42" dia 1D/3D cyclones. [District Rule 2201]
2. The three high slip dryers (one 6 MMBtu/hr and two 3 MMBtu/hr heaters) with four incline cleaners, two stick machines, one Airline separator shall be controlled by four 38" dia 1D/3D cyclones and four 42" dia 1D/3D cyclones. [District Rule 2201]
3. The three gin stands with feeders shall be controlled by two 36" dia 1D/3D cyclones, and three double (six total) Continental 16D model 94 lint cleaners each shall be controlled by two 58" dia 1D/3D cyclone (six total). [District Rule 2201]
4. The overflow system shall be controlled by two 36" dia 1D/3D cyclones. [District Rule 2201]
5. The battery condenser shall be controlled by two 72" dia cyclones and 2 MMBtu/hr natural gas fired humidifier. [District Rule 2201]
6. The motes system including mote cleaner, mote press, and 50 hp blower shall be controlled by 86" dia 1D/3D cyclone. [District Rule 2201]
7. The seed storage area shall be controlled by 1 cyclone. [District Rule 2201]
8. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
9. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081]
10. Visible emissions from lint cleaner 1D/3D cyclones, motes 1D/3D cyclones, and battery condenser 1D/3D cyclone shall not exceed 10% opacity. [District Rule 4101]
11. PM10 emission rates shall not exceed the following - primary lint cleaner cyclones: 0.080 lb/bale, secondary lint cleaner cyclones: 0.015 lb/bale, motes cyclone: 0.075 lb/bale, and battery condenser cyclone: 0.020 lb/bale. [District Rule 2201]
12. Cotton gin overall PM10 emission rate shall not exceed 0.635 lb/bale. [District Rule 2201]
13. Bale production rate shall not exceed 720 bales/day nor 129,600 bales/year. [District Rule 2201]
14. Records of bale production shall be maintained on a daily basis. [District Rules 1070 and 4204]

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

15. The trash loading area shall be enclosed with four sides that are higher than the trash auger. Two sides shall be solid. The remaining sides shall have flexible wind barriers that extend below the top of the trash trailer sides. [District Rule 4204]
16. Permittee shall conduct daily visual inspections of the material handling systems for leaks, breaks, or other visible signs of equipment malfunctions. [District Rule 4204]
17. Permittee shall maintain a record of the daily inspections of the material handling systems, including any equipment malfunctions discovered and corrective action taken to repair the malfunction, and any source test results. [District Rule 4204]
18. All records shall be retained on site for five years and made available to the District upon request. [District Rules 1070 and 4204]

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

Appendix B

Annual Records

Running Bales

Shafter-Wasco Ginning Co., Inc. - Ginning Report

2007		2006		2005		2004	
Date	Bales Ginned	Date	Bales Ginned	Date	Bales Ginned	Date	Bales Ginned
11/12/07	34	11/06/06	64	11/01/05	32	10/19-21/04	163
11/13/07	75	11/07/06	69	11/02/05	49	10/22/04	148
11/14/07	92	11/08/06	97	11/03/05	107	10/23/04	117
11/15/07	89	11/09/06	89	11/04/05	131	10/25/04	142
11/16/07	84	11/10/06	91	11/05/05	139	10/26/04	160
11/17/07	129	11/11/06	149	11/07/05	108	10/27-28/04	221
11/19/07	122	11/13/06	127	11/08/05	105	10/29/04	163
11/20/07	112	11/14/06	150	11/09/05	111	10/30/04	148
11/21/07	144	11/15/06	112	11/10/05	115	11/01/04	176
11/23/07	130	11/16/06	178	11/11/05	153	11/02/04	208
11/24/07	141	11/17/06	110	11/12/05	70	11/03/04	186
11/26/07	174	11/18/06	94	11/14/05	139	11/04/04	206
11/27/07	193	11/20/06	143	11/15/05	158	11/05/04	166
11/28/07	187	11/21/06	157	11/16/05	113	11/06/04	201
11/29/07	169	11/22/06	159	11/17/05	126	11/08/04	179
11/30/07	204	11/24/06	93	11/18/05	161	11/09/04	195
12/01/07	120	11/25/06	128	11/19/05	171	11/10/04	173
12/03/07	177	11/27/06	153	11/21/05	164	11/11/04	192
12/04/07	158	11/28/06	170	11/22/05	162	11/12/04	198
12/05/07	198	11/29/06	127	11/23/05	163	11/13/04	196
12/06/07	184	11/30/06	130	11/25/05	155	11/15/04	143
12/07/07	196	12/01/06	141	11/26/05	162	11/16/04	203
12/08/07	137	12/02/06	166	11/28/05	159	11/17/04	177
12/10/07	116	12/04/06	137	11/29/05	147	11/18/04	208
12/11/07	193	12/05/06	137	11/30/05	159	11/19/04	163
12/12/07	129	12/06/06	134	12/01/05	156	11/20/04	201
12/13/07	70	12/07/06	160	12/02/05	142	11/22/04	184
12/14/07	139	12/08/06	129	12/03/05	167	11/23/04	180
12/15/07	141	12/09/06	133	12/05/05	119	11/24/04	193
12/17/07	118	12/11/06	124	12/06/05	140	11/26/04	221
12/18/07	84	12/12/06	148	12/07/05	159	11/27/04	195
12/19/07	67	12/13/06	150	12/08/05	165	11/29/04	202
Total:	4,306	12/14/06	173	12/09/05	167	11/30/04	177
		12/15/06	107	12/10/05	40	12/01/04	204
		12/16/06	92	Total:	4,514	12/02/04	186
		Total:	4,521			12/03/04	208
						12/04/04	175
						12/06/04	197
						12/07/04	172
						12/08/04	186
						12/09/04	165
						12/10/04	197
						12/11/04	164
						12/13/04	197
						12/14/04	217
						12/15/04	209
						12/16/04	187
						12/17/04	200
						12/18/04	179
						12/20/04	196
						12/21/04	197
						12/22/04	171
						12/23/04	176
						12/24/04	82
						12/27/04	158
						12/28/04	110
						12/29/04	162
						12/30/04	97
						Total:	10,377

**Proposal for Emission Reduction Credits (ERCs) for
the shutdown of Shafter-Wasco Ginning Co.
located at Bender & Central Valley Hwy, Shafter, California**

Historical Production Data (Bales Ginned and Gallons of Propane Consumed) -

PRODUCTION DATA		
Year	Bales Ginned	Natural Gas Usage
1999	10579	25875
2000	9558	22579
2001	10982	34960
2002	9388	31771
2003	8626	28398
2004	10377	36602
2005	4523	20126
2006	4471	18167
2007	4273	13467
2008	-	0

Baseline Period -

Use the closest 2,3,4, or 5 year average that most closely matches the 10 year average to determine baseline bale production

$$2004-2005 = 7450.0 \text{ bales/yr}$$

$$\text{Bales} = (10377 + 4523) / 2$$

$$\text{Bales} = \mathbf{7,450}$$

$$\text{Terms of Natural Gas consumed from 2004-2005} = (36602 + 20126) / 2$$

$$\text{Terms of Natural Gas consumed} = \mathbf{28,364}$$

Historical Actual Emissions (HAE) -

Cotton Gin Emission Factor -

As listed in permit condition No. 5 (PTO#: S-539-1-6), emissions from this gin are equal to 0.98 lbs. PM10/bale.

Cotton Gin Emissions -

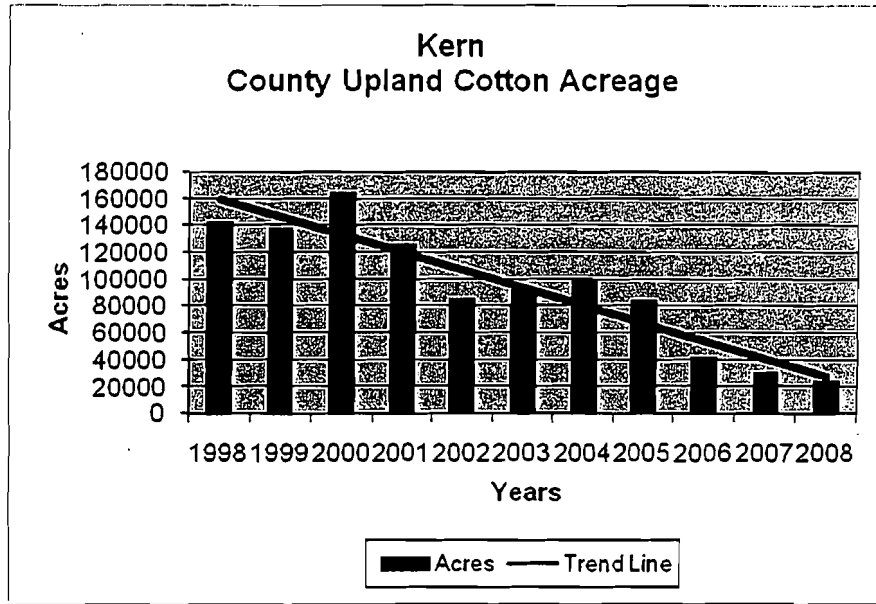
$$\text{HAE} = \text{Emission Factor (lb PM10/Bale)} \times \text{Baseline Period Production History (bales/yr)}$$

$$\text{HAE} = 0.98 \text{ lb PM10/bale} \times 7,450 \text{ bales/yr}$$

$$\text{HAE} = \mathbf{7,301.0 \text{ lb PM10/yr}}$$

Appendix C

Support Information



Natural Gas Combustion Emission Factors -

Natural Gas Emission Factors	
Pollutant	Emission Factor (lb/1000 therms)
NO _x	10
SO _x	0.3
CO	2
VOC	0.6

Natural Gas Combustion Emissions -

HAE = Emission Factor (lb/1000 therms) x 1000 therms burned

Natural Gas Emission Calculations (HAE)			
Pollutant	Emission Factor (lb/1000 therms)	Natural Gas Usage (therms)	Emissions (lb/yr)
NO _x	14	28,364.0	397.1
SO _x	0.35	28,364.0	9.9
CO	1.9	28,364.0	53.9
VOC	0.5	28,364.0	14.2

Appendix D

Draft Emission Reduction Certificates

San Joaquin Valley
Air Pollution Control District

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

Emission Reduction Credit Certificate
S-3268-1

ISSUED TO: SHAFTER-WASCO GINNING COMPANY
ISSUED DATE: <DRAFT>
LOCATION OF BENDER AND CENTRAL VALLEY HWY
REDUCTION: SHAFTER, CA 93263

For VOC Reduction In The Amount Of:

Quarter 1	Quarter 2	Quarter 3	Quarter 4
None	None	None	13 lbs

Conditions Attached

Method Of Reduction

Shutdown of Entire Stationary Source

Shutdown of Emissions Units

Other

Shut down of cotton gin

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

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

Emission Reduction Credit Certificate
S-3268-2

ISSUED TO: SHAFTER-WASCO GINNING COMPANY
ISSUED DATE: <DRAFT>
LOCATION OF REDUCTION: BENDER AND CENTRAL VALLEY HWY
SHAFTER, CA 93263

For NOx Reduction In The Amount Of:

Quarter 1	Quarter 2	Quarter 3	Quarter 4
None	None	None	232 lbs

Conditions Attached

Method Of Reduction

- Shutdown of Entire Stationary Source
 Shutdown of Emissions Units
 Other

Shut down of cotton gin

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

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Emission Reduction Credit Certificate
S-3268-3

ISSUED TO: SHAFTER-WASCO GINNING COMPANY
ISSUED DATE: <DRAFT>
LOCATION OF REDUCTION: BENDER AND CENTRAL VALLEY HWY
SHAFTER, CA 93263

For CO Reduction In The Amount Of:

Quarter 1	Quarter 2	Quarter 3	Quarter 4
None	None	None	348 lbs

Conditions Attached

Method Of Reduction

- Shutdown of Entire Stationary Source
 Shutdown of Emissions Units
 Other

Shut down of cotton gin

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

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Emission Reduction Credit Certificate
S-3268-4

ISSUED TO: SHAFTER-WASCO GINNING COMPANY
ISSUED DATE: <DRAFT>
LOCATION OF REDUCTION: BENDER AND CENTRAL VALLEY HWY
SHAFTER, CA 93263

For PM10 Reduction In The Amount Of:

Quarter 1	Quarter 2	Quarter 3	Quarter 4
None	None	None	4,695 lbs

Conditions Attached

Method Of Reduction

- Shutdown of Entire Stationary Source
 Shutdown of Emissions Units
 Other

Shut down of cotton gin

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

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Emission Reduction Credit Certificate
S-3268-5

ISSUED TO: SHAFter-WASCO GINNING COMPANY
ISSUED DATE: <DRAFT>
LOCATION OF REDUCTION: BENDER AND CENTRAL VALLEY HWY
SHAFTER, CA 93263

For SOx Reduction In The Amount Of:

Quarter 1	Quarter 2	Quarter 3	Quarter 4
None	None	None	19 lbs

Conditions Attached

Method Of Reduction

- Shutdown of Entire Stationary Source
 Shutdown of Emissions Units
 Other

Shut down of cotton gin

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