



JAN 11 2016

Ken Schwarz
South Valley Gins, Inc.
9759 Valpredo Road
Bakersfield, CA 93313

Re: Notice of Preliminary Decision – Emission Reduction Credits
Facility Number: S-829
Project Number: S-1153621

Dear Mr. Schwarz:

Enclosed for your review and comment is the District's analysis of South Valley Gins, Inc.'s application for Emission Reduction Credits (ERCs) resulting from the shutdown of a cotton gin, at 9759 Valpredo Road in Bakersfield. The quantity of ERCs proposed for banking is 829 lb-NOx/yr, 24 lb-SOx/yr, 12,058 lb-PM10/yr, 91 lb-CO/yr and 26 lb-VOC/yr.

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. After addressing all comments made during the 30-day public notice comment period, the District intends to issue the ERCs. Please submit your written comments on this project within the 30-day public comment period, as specified in the enclosed public notice.

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Mr. Steve Roeder of Permit Services at (661) 392-5615.

Sincerely,

Arnaud Marjolle
Director of Permit Services

AM:SR/ya

Enclosures

cc: Mike Tollstrup, CARB (w/enclosure) via email
cc: Gerardo C. Rios, EPA (w/enclosure) via email

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

San Joaquin Valley Air Pollution Control District ERC Application Review - Shutdown of Cotton Gin

Facility Name: South Valley Gins, Inc. Date: 11/24/15
Mailing Address: 9759 Valpredo Road Engineer: Steve Roeder
Bakersfield, CA 93313 Lead Engineer: Steve Leonard
Contact Person: Guy Schwarz
Telephone: (661) 858-2477
Project #: S-1153621
Received: 8/26/15
Deemed Complete: 8/31/15
ERC #: S-4635-1 thru -5

I. Summary

The primary business of this facility is cotton ginning. South Valley Gins has surrendered the Permit to Operate (PTO) their cotton gin (S-829-2) following the permanent shutdown after the 2015 ginning season. The facility proposes to bank the criteria and greenhouse gas emissions from the shutdown of their roller gin. See the surrendered permit in Appendix A.

The greenhouse gas (GHG) emissions resulted from the combustion of commercially available natural gas. Since the emission of GHG from commercially available gas is subject to the Cap and Trade program, the GHG emissions are not eligible for banking and will not be addressed in this evaluation.

The following Actual Emission Reductions (AER) for criteria pollutants qualify for ERC banking.

Bankable Criteria ERCs (lb/quarter)				
	Quarter 1	Quarter 2	Quarter 3	Quarter 4
NO _x	77	0	0	752
SO _x	2	0	0	24
PM ₁₀	1,233	0	0	12,164
CO	17	0	0	167
VOC	4	0	0	42

II. Applicable Rules

Rule 2201 New and Modified Stationary Source Review Rule (4/21/11)
Rule 2301 Emission Reduction Credit Banking (1/19/12)
Rule 4201 Particulate Matter Concentration (12/17/92)
Rule 4202 Particulate Matter Emission Rate (12/17/92)
Rule 4204 Cotton Gins (2/17/05)

III. Location of Reduction

The equipment was located at 9759 Valpredo Road in Bakersfield.

IV. Method of Generating Reductions

The emission reductions were generated by the shutdown of a permitted cotton ginning operation.

Equipment Description

S-829-2-7: 12 MMBTU/HR ROLLER COTTON GIN INCLUDING FOUR 3 MMBTU/HR COTTON DRYERS, TWO WAGON SUCTION ASSEMBLIES, THREE INCLINE CLEANERS, TWO TOWER DRYERS, STICK MACHINE, EIGHT ROLLER GIN STANDS, TWO HORIZONTAL LINT CLEANERS (6 CYLINDER EACH), BATTERY CONDENSER AND LUMMUS MODEL 700 FEEDER

V. Calculations

A. Assumptions and Emission Factors

Assumptions

- 1 therm of Natural Gas = 100 scf
- The emission factor for PM₁₀ is given in lb-PM₁₀ per 500-lb bale. This figure includes the PM₁₀ emissions from the combustion of natural gas. As such, there is no separate PM₁₀ calculation regarding the use of natural gas.
- The normal source operation is determined based on the typical throughput of cotton, in 500-lb bales.
- PM_{2.5} Fraction (% of the PM₁₀ that is also PM_{2.5}) = 1.9% (Appendix B)

Emission Factors (EF)

The emission factors are presented in the following table.

Emission Factors		
Pollutant	Emission Factor	Source
NO _x	0.1 lb/MMBtu	Project 1070288
SO _x	0.00285 lb/MMBtu	Mass Balance Below*
PM ₁₀	0.91 lb/500-lb Bale	Project 1070288
CO	0.02 lb/MMBtu	Project 1070288
VOC	0.005 lb/MMBtu	Project 1070288

$$* \frac{1 \text{ gr} \cdot \text{S}}{100 \text{ dscf}} \left(\frac{\text{dscf}}{1,000 \text{ Btu}} \right) \frac{10^6 \text{ Btu}}{\text{MMBtu}} \left(\frac{1 \text{ lb}}{7,000 \text{ gr}} \right) \frac{64 \text{ lb} \cdot \text{SO}_2}{32 \text{ lb} \cdot \text{S}} = 0.00285 \frac{\text{lb} \cdot \text{SO}_2}{\text{MMBtu}}$$

B. Baseline Period Determination

Pursuant to Rule 2301, Section 3.6, the Baseline Period is the same as defined in Rule 2201, which is:

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 date of the complete application if determined by the APCO as more representative of normal source operation.

The applicant has supplied cotton throughput and fuel use data for the 10 operating seasons 2005 thru 2014.

The applicant has indicated that the final operating season was incomplete, having only run from October thru November instead of the typical November thru December/January. As such, the normal source operation will be the average of the 2005 – 2013 operating seasons.

Operating Records		
Operating Season	Volume Bales	Therms of Natural Gas
2004-05	15,346	105,396
2005-06	17,332	110,469
2006-07	20,329	115,382
2007-08	20,674	139,606
2008-09	10,290	55,234
2009-10	10,659	72,135
2010-11	17,263	101,036
2011-12	14,277	75,861
2012-13	8,512	35,324
2013-14	6,771	29,382
Average	14,965	83,983

As determined above, the source normally processes 14,965 bales per operating season.

The baseline period is one consecutive two-year, three-year, four-year or five-year period that most accurately represents the normal source operation.

The average number of bales processed in 2 thru 5 year increments from the 2005 thru 2014 operating seasons are presented in the following table.

Average Bales in Respective Period				
Ending	2-year	3-year	4-year	5-year
2005	-	-	-	-
2006	16,339	-	-	-
2007	18,831	17,669	-	-
2008	20,502	19,445	18,420	-
2009	15,482	17,098	17,156	16,794
2010	10,475	13,874	15,488	15,857
2011	13,961	12,737	14,722	15,843
2012	15,770	14,066	13,122	14,633
2013	11,395	13,351	12,678	12,200
2014	7,642	9,853	11,706	11,496

The number of bales produced in the timeframes specified above are compared to the number of bales produced during normal source operation (14,965 bales) in the following table. The result is the difference between the specified operating period and normal source operation. The number closest to zero identifies the baseline period.

Difference from Normal Source Operation (Bales)				
Ending	2-year	3-year	4-year	5-year
2005	-	-	-	-
2006	-1,374	-	-	-
2007	-3,866	-2,704	-	-
2008	-5,537	-4,480	-3,456	-
2009	-517	-2,133	-2,192	-1,830
2010	4,490	1,090	-523	-892
2011	1,004	2,227	243	-878
2012	-805	898	1,842	332
2013	3,570	1,614	2,287	2,764
2014	7,323	5,111	3,259	3,468

As shown above, the Baseline Period includes the 4-year period ending with the 2011 operating season. Since the ERCs are divided into calendar quarters, the baseline period is: April 1, 2008 thru March 31, 2012.

C. Baseline Data

The baseline cotton throughput and natural gas-use is taken from the annual records that have been supplied by the applicant, and are presented in the following tables.

Baseline Data			
Year	Bales	Therms	MMBtu
2008	20,674	139,606	13,961
2009	10,290	55,234	5,523
2010	10,659	72,135	7,214
2011	17,263	101,036	10,104
Average	14,722	-	9,201

D. Historical Actual Emissions (HAE)

The HAE from the processing of cotton is determined by multiplying the average number of bales of cotton processed per season during the baseline period by the emission factor above.

$$14,722 \text{ bales/year} \times 0.91 \text{ lb-PM}_{10}/\text{bale} = 13,397 \text{ lb-PM}_{10}/\text{year}$$

The HAE from the fuel use is determined by multiplying the annual fuel-use by the emission factors presented above.

HAE						
NO _x	0.1	lb/MMBtu x	9,201	MMBtu/yr =	920	lb/yr
SO _x	0.00285	lb/MMBtu x	9,201	MMBtu/yr =	26	lb/yr
PM ₁₀	-	-	-	-	13,397	lb/yr
CO	0.02	lb/MMBtu x	9,201	MMBtu/yr =	184	lb/yr
VOC	0.005	lb/MMBtu x	9,201	MMBtu/yr =	46	lb/yr

E. Emission Reductions Eligible for Banking

The emission reductions eligible for banking are calculated as the difference between the historical actual emissions and the potential to emit after the project (which is zero). In addition, the emission reductions must be distributed among the 4th and 1st calendar quarters proportionally to the number of days of operation occurred in the respective quarters.

2008 season = 114 days from 10/1/08 – 1/27/09
 2009 season = 53 days from 10/1/09 – 12/23/10
 2010 season = 54 days from 10/1/10 – 12/26/11
 2011 season = 85 days from 10/1/11 – 1/1/12

The baseline period consists of 306 days, with 28 days occurring in the first quarter, and 278 occurring in the 4th quarter. Therefore, the emissions will be accredited to the 1st and 4th quarters in the following percentages.

28 days out of 306 days = 9.2% first quarter
 278 days out of 306 weeks = 90.8% fourth quarter

The emissions reductions available for banking are presented in the following tables.

1 st Quarter AER					
NO _x	920	lb/year x	9.2% =	85	lb/quarter
SO _x	26	lb/year x	9.2% =	2	lb/quarter
PM ₁₀	13,397	lb/year x	9.2% =	1,233	lb/quarter
CO	184	lb/year x	9.2% =	17	lb/quarter
VOC	46	lb/year x	9.2% =	4	lb/quarter

4 th Quarter AER					
NO _x	920	lb/year x	90.8% =	835	lb/quarter
SO _x	26	lb/year x	90.8% =	24	lb/quarter
PM ₁₀	13,397	lb/year x	90.8% =	12,164	lb/quarter
CO	184	lb/year x	90.8% =	167	lb/quarter
VOC	46	lb/year x	90.8% =	42	lb/quarter

F. Adjustments to HAE

1. Rule 2201 - New and Modified Stationary Source Review Rule

a. Pursuant to Section 3.23, HAE 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 (SIP), or
- proposed in the District Air Quality Plan for attaining the annual reductions required by the California Clean Air Act.
- Any Actual Emissions in excess of those required or encumbered by any laws, rules, regulations, orders, or permits. For units covered by a Specific Limiting Condition (SLC), the total overall HAE for all units covered by SLC must be discounted for any emissions in excess of that allowed by the SLC.

1. There are no agreements or orders regarding the operation or emissions reductions associated with the engine. The discounts for any Rules will be discussed under the applicable Rules listed below.

2. There are no reductions that are attributed to a control measure noticed for workshop, or proposed or contained in a State Implementation Plan.

3. There are no reductions proposed in the District Air Quality Plan for attaining the annual reductions required by the California Clean Air Act.

4. There are no SLCs related to the operation of the cotton gin.

- b. Pursuant to Section 3.2, any AER must be real, enforceable, quantifiable, permanent, and surplus.

1. Real

The emissions reductions were generated by the shutdown of a cotton gin. The emissions were calculated from historic fuel-use and baling records, recognized emission factors and source test data. Therefore the emissions were real. The cotton gin has been removed. Therefore, the emission reductions are real.

2. Enforceable

The associated permit for the cotton gin has been surrendered to the District. Operation of the equipment without a valid permit would subject the permittee to enforcement action, and this facility is subject to annual inspections. Therefore, the reductions are enforceable.

3. Quantifiable

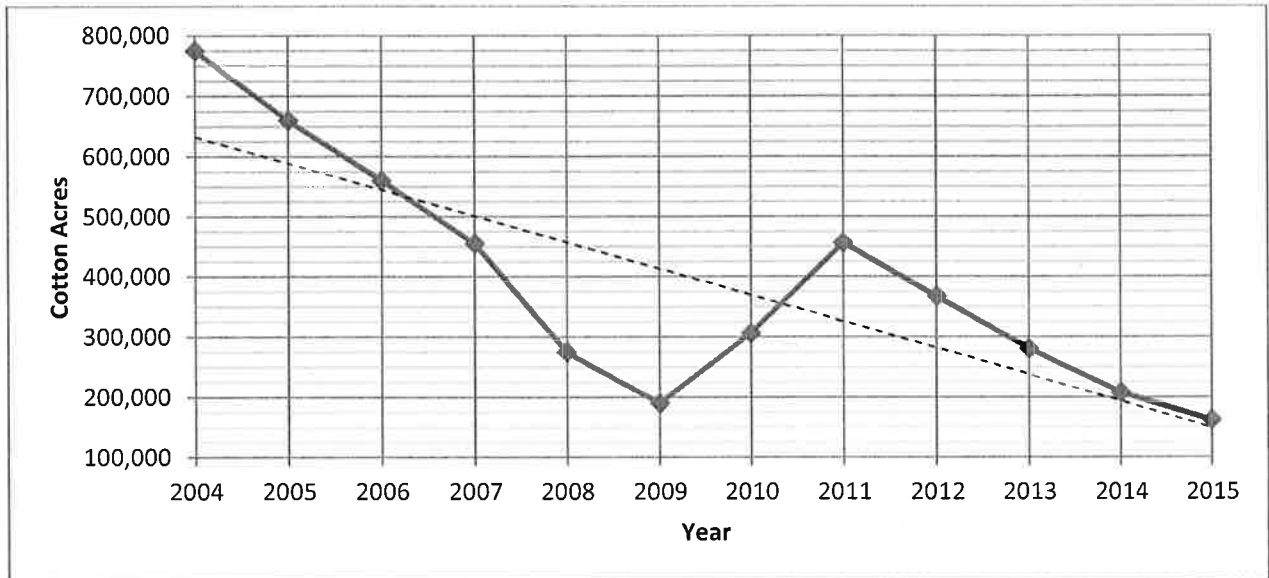
The reductions are quantifiable since they were calculated from historic fuel use records, source testing data, established and accepted emission factors and methods according to District Rule 2201. The equipment has been shut down. Therefore, the reductions are quantifiable and have been quantified.

4. Permanent

The cotton gin has been shut down, removed, and the PTO has been surrendered and the District has determined that the emissions reductions are permanent within the San Joaquin Valley.

According to the United States Department of Agriculture (USDA) economic research using USDA National Agricultural Statistics Service (NAAS) data (March 2014), the total California cotton acreage had declined from 775,000 acres in 2004 to 280,000 acres in 2013 (see graph below).

According to Roger Isom, president of the California Cotton Ginners and Growers Associations (CCGGA), based on survey data from the Pink Bollworm Eradication Program, total cotton acreage for 2014 was 207,765 acres and the total cotton acreage for 2015 was 160,806 acres.



The decline in acreage has forced the closure of several cotton gins in California. Since the amount of cotton being ginned has decreased significantly, the gin's shutdown will not lead to significant "load shifting" to other cotton gins in the San Joaquin Valley and the emission reductions are determined to be permanent.

5. Surplus

To be considered surplus, AER shall be in excess, at the time the application for an ERC is deemed complete, of any emissions reduction which:

- Is required or encumbered by any laws, rules, regulations, agreements, orders, or
- Is attributed to a control measure noticed for workshop, or proposed or contained in a State Implementation Plan, or
- Is proposed in the adopted air quality plan pursuant to the California Clean Air Act.

As discussed above, there are no rules, regulations, plans, etc., that would serve to reduce the bankable emissions for criteria pollutants. Therefore the reductions are surplus.

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

The emission reduction credits generated by the shutdown of a cotton gin and has not been used for the approval of any ATC or as offsets or mitigation. The permit has been surrendered.

The gin had undergone permitting under Rule 2201 and EPA review under a minor modification. The permit complied with all NSR and Federal Requirements. No adjustments to the HAE are necessary under Rule 2201.

2. Rule 2301 – Emission Reduction Credit Banking

Section 5.5 states that ERC certificate applications shall be submitted within 180 days after the emission reduction occurs.

The cotton gin last operated during the 2014-15 ginning season. The permit was kept active until it was determined that no cotton would be ginned during the 2015-16 season. This project was received on 8/26/15, and the cotton gin's permit was cancelled as part of this project. Therefore, the application was submitted in a timely fashion.

Section 6.1.2 states that if the emission reductions were created as a result of the shutdown of a permitted emissions unit, the relevant Permit to Operate shall have been surrendered and voided. The Permit to Operate was surrendered and canceled by the District on 11/12/15.

2. Rule 4201 - Particulate Matter Concentration

Section 3.1 prohibits discharge of dust, fumes, or total particulate matter into the atmosphere from any single source operation in excess of 0.1 grain per dry standard cubic foot.

According to Project S-1021211, the maximum particulate matter concentration coming from any of the cyclones is 0.02 grains-PM/ft³.

Since 0.02 grain·PM/ft³ is less than 0.1, no adjustment is necessary for Rule 4201.

3. Rule 4202 – Particulate Matter Emission Rate

Section 4.1 limits PM emissions (E) based on process weight as follows, where:

$$E = 3.59 \times P^{0.62} \quad \text{and}$$

P = Maximum Process weight

The process rate in a cotton gin varies from emission point to emission point as the trash and seeds are removed from the lint, decreasing the weight. The rate starts at 1,500 lb of seed cotton per bale of finished cotton (per applicant) and drops to about 500 lb of lint cotton per bale of finished cotton after the gins stands. The process rate is 16 bales per hour for the roller gin. The highest process weight will be for the cottonseed in the roller gin.

$$\begin{aligned} P &= 16 \text{ bales/hr} \times 1,500 \text{ lb/bale} \\ &= 24,000 \text{ lb/hr of seed cotton} \\ &= 12 \text{ tons/hr} \end{aligned}$$

The emission rates for each system are compared with the maximum emission rates in the following table.

SYSTEM	Control Devices	EF lb/bale	Allowable Emissions lb/hr	Emissions rate lb/hr
Unloading	(3) 36" 1D-3D	0.23	16.61	3.68
#1 Incline Cleaner	(2) 44" 1D-3D	0.24	16.61	3.84
#2 Incline Cleaner	(2) 36" 1D-3D	0.14	16.61	2.24
#3 Incline Cleaner	(2) 36" 1D-3D	0.19	16.61	3.04
#1 Overflow	(2) 36" 1D-3D	0.03	16.61	0.48
#2 Overflow	(2) 36" 1D-3D	0.03	16.61	0.48
Ginstand Trash	(2) 46" 1D-3D	0.04	8.48	0.64
Lint Cleaner Trash	(2) 72" 1D-3D	0.02	8.48	0.32
Battery Condenser	(2) 72" 1D-3D	0.07	8.48	1.12
Trash System	(2) 30" 1D-3D	0.09	8.48	1.44

All emissions rates are below the allowable rates, therefore no adjustment is necessary.

4. Rule 4204 – Cotton Gins

The purpose of this rule is to limit PM₁₀ emissions from cotton ginning facilities and to provide the administrative requirements for monitoring, recordkeeping, and source testing for these facilities.

Section 5.1 requires that all emission points shall be controlled by 1D3D cyclones or rotary drum filters, according to the compliance schedule in Section 7.0.

Since the cotton gin was served entirely by 1D-3D cyclones, and no other parts of this rule regulate permitted emissions, no adjustment is necessary.

5. Air Quality Improvement Deduction (AQID)

Pursuant to Rule 2201, Section 3.6, the AQID is a 10% discount factor applied to AER (for criteria pollutants) before the AER is eligible for banking. The AER is adjusted for the AQID in the following tables.

AQID			
Quarter 1			
Pollutant	AER	AQID	Adjusted AER
NO _x	85	8.5	77
SO _x	2	0.2	2
PM ₁₀	1,233	123.3	1,110
CO	17	1.7	15
VOC	4	0.4	4

AQID			
Quarter 4			
Pollutant	AER	AQID	Adjusted AER
NO _x	835	83.5	752
SO _x	24	2.4	22
PM ₁₀	12,164	1,216.4	10,948
CO	84	8.4	76
VOC	24	2.4	22

7. Increase in Permitted Emissions (IPE)

The unit has been shut down and there are no increases in emissions associated with this project. Therefore no adjustment is necessary.

8. Bankable Emissions Reduction Credits

The bankable ERCs for criteria pollutants are presented in pounds/quarter in the following tables, while the bankable GHG ERCs are expressed in metric tons per year.

Bankable ERCs (lb/qtr)	
Quarter 1	
NO _x	77
SO _x	2
PM ₁₀	1,233
CO	17
VOC	4

Bankable ERCs (lb/qtr)	
Quarter 4	
NO _x	752
SO _x	24
PM ₁₀	12,164
CO	167
VOC	42

VII. Recommendation

Issue the ERC Certificates in the amount posted on the Draft ERC Certificate in Appendix C.

List of Appendixes

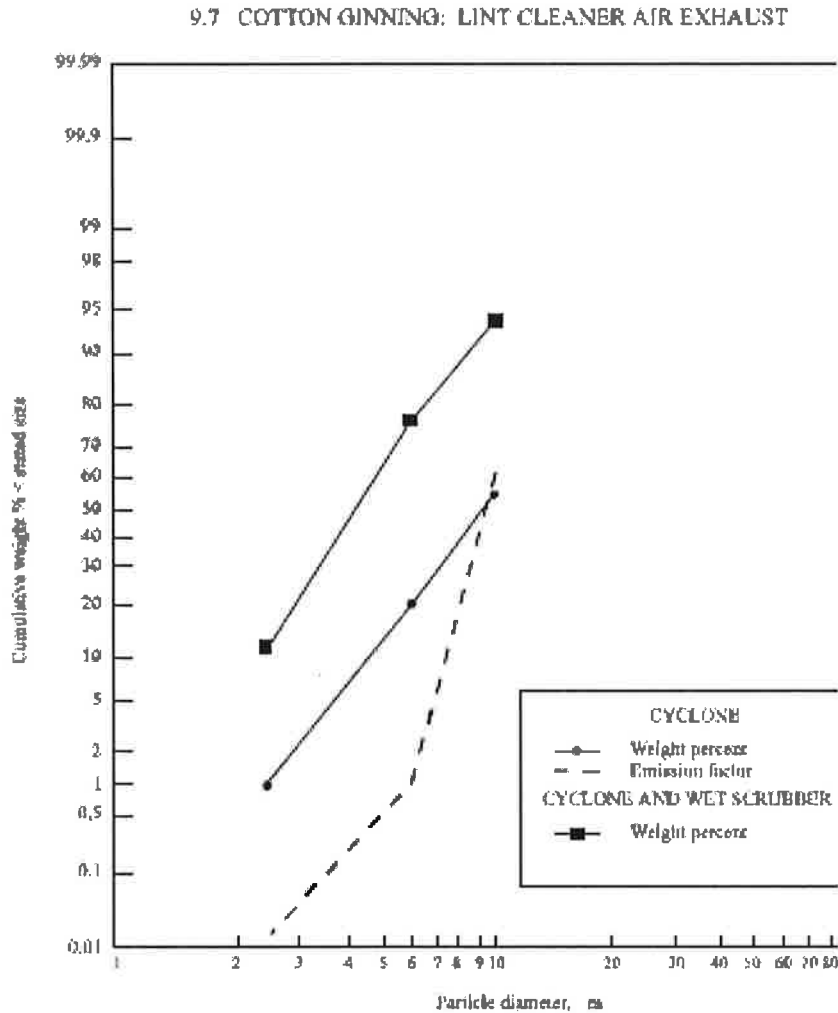
- A. Surrendered PTO
- B. PM_{2.5} Fraction
- C. Draft Emission Reduction Credit Certificate

Appendix A
Surrendered PTO

Appendix B

PM_{2.5} Fraction from EPA AP-42 Section 9.7 Appendix B-1

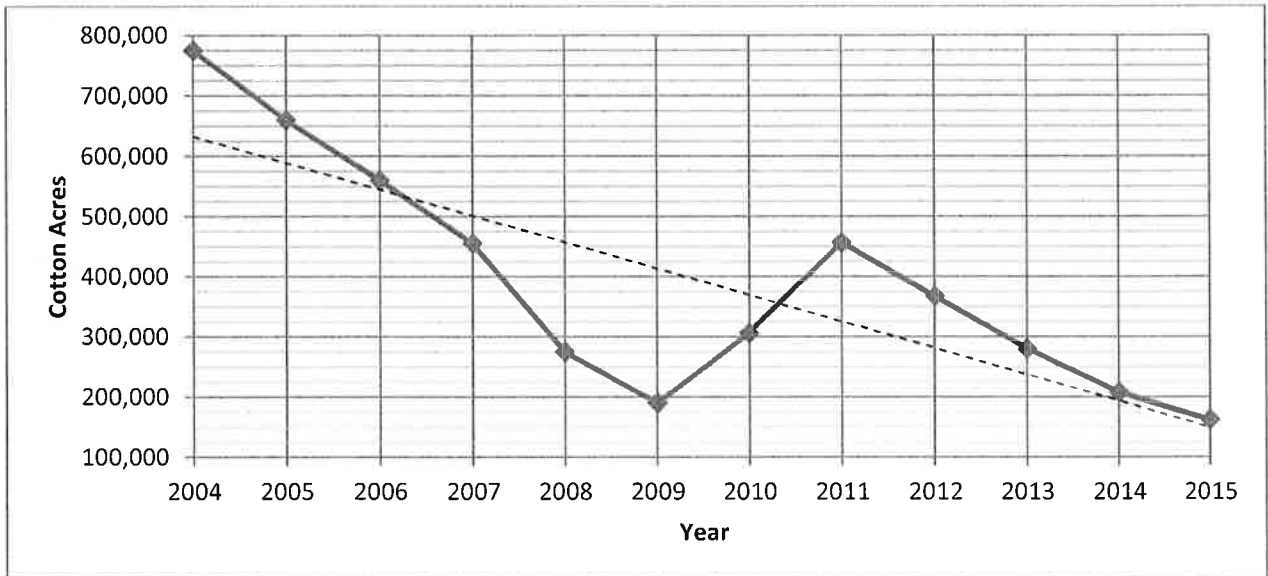
9.7 COTTON GINNING: LINT CLEANER AIR EXHAUST



Lint cleaners are the largest source of emissions from the cotton ginning process. Therefore, the PM_{2.5} fraction of the PM₁₀ from lint cleaners is representative of the PM_{2.5} fraction from the entire cotton gin. Based on the data in the chart above, the final PM_{2.5} fraction is calculated to be:

$$PM_{2.5} \text{ Fraction} = \frac{\frac{1 \text{ lb } PM_{2.5}}{\text{lb } PM}}{\frac{54 \text{ lb } PM_{10}}{\text{lb } PM}} \times 100\% = 1.851 \rightarrow 1.9\% \frac{PM_{2.5}}{PM_{10}}$$

Appendix C
Draft ERC Certificates



The decline in acreage has forced the closure of several cotton gins in California. Since the amount of cotton being ginned has decreased significantly, the gin's shutdown will not lead to significant "load shifting" to other cotton gins in the San Joaquin Valley and the emission reductions are determined to be permanent.

5. Surplus

To be considered surplus, AER shall be in excess, at the time the application for an ERC is deemed complete, of any emissions reduction which:

- Is required or encumbered by any laws, rules, regulations, agreements, orders, or
- Is attributed to a control measure noticed for workshop, or proposed or contained in a State Implementation Plan, or
- Is proposed in the adopted air quality plan pursuant to the California Clean Air Act.

As discussed above, there are no rules, regulations, plans, etc., that would serve to reduce the bankable emissions for criteria pollutants. Therefore the reductions are surplus.

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

The emission reduction credits generated by the shutdown of a cotton gin and has not been used for the approval of any ATC or as offsets or mitigation. The permit has been surrendered.

The gin had undergone permitting under Rule 2201 and EPA review under a minor modification. The permit complied with all NSR and Federal Requirements. No adjustments to the HAE are necessary under Rule 2201.

Appendix A
Surrendered PTO

INSPECTION
EXPIRATION DATE: 01/31/2019

LEGAL OWNER OR OPERATOR: SOUTH VALLEY GINS INC
MAILING ADDRESS: 9759 VALPREDO RD
 BAKERSFIELD, CA 93313

LOCATION: VALPREDO RD, 3 MI W OF HWY 99
 BAKERSFIELD, CA 93313

SECTION: 09 **TOWNSHIP:** 12N **RANGE:** 20W

INSPECT PROGRAM PARTICIPANT: NO

EQUIPMENT DESCRIPTION:

12 MMBTU/HR ROLLER COTTON GIN INCLUDING FOUR 3 MMBTU/HR COTTON DRYERS, TWO WAGON SUCTION ASSEMBLIES, THREE INCLINE CLEANERS, TWO TOWER DRYERS, STICK MACHINE, EIGHT ROLLER GIN STANDS, TWO HORIZONTAL LINT CLEANERS (6 CYLINDER EACH), BATTERY CONDENSER AND LUMMUS MODEL 700 FEEDER

CONDITIONS

1. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. {14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
3. {15} 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]
4. {1934} All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201]
5. {1935} Material removed from dust collector(s) shall be disposed of in a manner preventing entrainment into the atmosphere. [District Rule 2201]
6. Emissions shall only exhaust from permitted control equipment, and there shall be no visible emissions from any ducting, conveyor, auger, or from the trash house. [District Rule 2201]
7. Annual ginning rate of the cotton gin shall not exceed 21,600 tons of baled cotton per year (86,400 bales per year, based on 500-pound bales). [District Rule 2201]
8. Daily ginning rate of the cotton gin shall not exceed 96 tons of baled cotton per day (384 bales per day, based on 500-pound bales). [District Rule 2201]
9. The two wagon suction assemblies shall be served by three 36-inch 1D-3D cyclone collectors, operating at a cyclone inlet air velocity of 3,200 +/- 400 ft/min. [District Rules 2201 and 4204]
10. The three incline cleaners (1st incline cleaner includes stick machine) shall be served by two 44-inch 1D-3D cyclone collectors and four 36-inch 1D-3D cyclone collectors, operating at a cyclone inlet air velocity of 3,200 +/- 400 ft/min. [District Rules 2201 and 4204]
11. The trash system shall be served by two 30-inch 1D-3D cyclone collectors, operating at a cyclone inlet air velocity of 3,200 +/- 400 ft/min. [District Rules 2201 and 4204]
12. The eight gin stands trash system shall be served by two 46-inch 1D-3D cyclone collectors, operating at a cyclone inlet air velocity of 3,200 +/- 400 ft/min. [District Rules 2201 and 4204]
13. The two horizontal lint cleaners (6 cylinders each) shall be served by two 72-inch 1D-3D cyclone collectors, operating at a cyclone inlet air velocity of 3,200 +/- 400 ft/min. [District Rules 2201 and 4204]
14. The battery condenser shall be served by two 72-inch 1D-3D cyclone collectors, operating at a cyclone inlet air velocity of 3,200 +/- 400 ft/min. [District Rules 2201 and 4204]
15. The two overflow systems shall be served by four 36-inch 1D-3D cyclone collectors, operating at a cyclone inlet air velocity of 3,200 +/- 400 ft/min. [District Rules 2201 and 4204]

CONDITIONS FOR PERMIT S-829-2-7

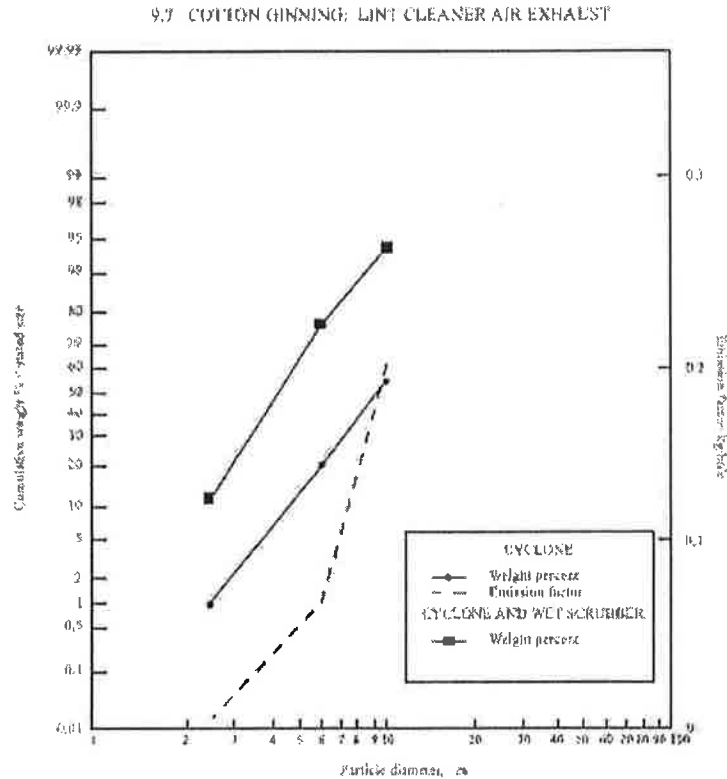
16. The trash loading area shall be enclosed with four sides that are higher than the trash auger. Two sides shall be solid. The remaining sides shall have flexible wind barriers that extend below the top of the trash trailer sides. [District Rule 4204]
17. Total PM10 emissions from the cotton gin operation shall not exceed 4.52 pounds per ton of baled cotton (1.08 pounds per bale, corrected to 500-pound bales). [District Rule 2201]
18. Emissions from the natural gas-fired burners shall not exceed 0.1 lb-NOx/MMBtu, 0.003 lb-SOx/MMBtu, 0.02 lb-CO/MMBtu, or 0.006 lb-VOC/MMBtu. [District Rule 2201]
19. Permittee shall conduct daily visual inspections of the material handling systems for leaks, breaks, or other visible signs of equipment malfunctions. [District Rule 4204]
20. Permittee shall maintain a record of the daily inspections, including any equipment malfunctions discovered and corrective action taken to repair the malfunction, and any source test results. [District Rule 4204]
21. Daily records of the number and weight of bales produced shall be maintained. [District Rules 1070 and 2201]
22. All records shall be retained on site for a period of at least five years and made available for District inspection upon request. [District Rules 1070 and 4204]

INSPECTION
WORKSHEET

Appendix B

PM_{2.5} Fraction from EPA AP-42 Section 9.7 Appendix B-1

9.7 COTTON GINNING: LINT CLEANER AIR EXHAUST



Arachidonic particle diameter, μ m	Cumulative wt. % - sized air		Emission factor, g/bale Controlled with fabric filter
	After cyclone	After cyclone & wet scrubber	
2.5	1	11	0.004
6.0	24	74	0.070
10.0	54	92	0.16

Lint cleaners are the largest source of emissions from the cotton ginning process. Therefore, the PM_{2.5} fraction of the PM₁₀ from lint cleaners is representative of the PM_{2.5} fraction from the entire cotton gin. Based on the data in the chart above, the final PM_{2.5} fraction is calculated to be:

$$PM_{2.5} \text{ Fraction} = \frac{1 \text{ lb } PM_{2.5}}{54 \text{ lb } PM_{10}} \times 100\% = 1.851 \rightarrow 1.9\% \frac{PM_{2.5}}{PM_{10}}$$

Appendix C
Draft ERC Certificates

San Joaquin Valley
Air Pollution Control District

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

Emission Reduction Credit Certificate

S-4635-1
DRAFT

ISSUED TO: SOUTH VALLEY GINS INC
ISSUED DATE: <DRAFT>
LOCATION OF REDUCTION: VALPREDO RD, 3 MI W OF HWY 99
BAKERSFIELD, CA 93313

For VOC Reduction In The Amount Of:

Quarter 1	Quarter 2	Quarter 3	Quarter 4
4 lbs	None	None	42 lbs

Conditions Attached

Method Of Reduction

- Shutdown of Entire Stationary Source
 Shutdown of Emissions Units
 Other

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

Arnaud Marjollet, 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-4635-2
DRAFT

ISSUED TO: SOUTH VALLEY GINS INC
ISSUED DATE: <DRAFT>
LOCATION OF REDUCTION: VALPREDO RD, 3 MI W OF HWY 99
BAKERSFIELD, CA 93313

For NOx Reduction In The Amount Of:

Quarter 1	Quarter 2	Quarter 3	Quarter 4
77 lbs	None	None	752 lbs

Conditions Attached

Method Of Reduction

- Shutdown of Entire Stationary Source
- Shutdown of Emissions Units
- Other

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

Arnaud Marjollet, 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-4635-3
DRAFT

ISSUED TO: SOUTH VALLEY GINS INC
ISSUED DATE: <DRAFT>
LOCATION OF REDUCTION: VALPREDO RD, 3 MI W OF HWY 99
BAKERSFIELD, CA 93313

For CO Reduction In The Amount Of:

Quarter 1	Quarter 2	Quarter 3	Quarter 4
17 lbs	None	None	167 lbs

Conditions Attached

Method Of Reduction

- Shutdown of Entire Stationary Source
- Shutdown of Emissions Units
- Other

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

Arnaud Marjollet, 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-4635-4
DRAFT

ISSUED TO: SOUTH VALLEY GINS INC
ISSUED DATE: <DRAFT>
LOCATION OF REDUCTION: VALPREDO RD, 3 MI W OF HWY 99
BAKERSFIELD, CA 93313

For PM10 Reduction In The Amount Of:

Quarter 1	Quarter 2	Quarter 3	Quarter 4
1,223 lbs	None	None	12,164 lbs

Percentage Of PM2.5 Reductions:

Quarter 1	Quarter 2	Quarter 3	Quarter 4
0.0%	0.0%	0.0%	0.0%

Conditions Attached

Method Of Reduction

- Shutdown of Entire Stationary Source
 Shutdown of Emissions Units
 Other

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

Arnaud Marjollet, 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-4635-5

DRAFT

ISSUED TO: SOUTH VALLEY GINS INC
ISSUED DATE: <DRAFT>
LOCATION OF VALPREDO RD, 3 MI W OF HWY 99
REDUCTION: BAKERSFIELD, CA 93313

For SOx Reduction In The Amount Of:

Quarter 1	Quarter 2	Quarter 3	Quarter 4
2 lbs	None	None	240 lbs

Conditions Attached

Method Of Reduction

- Shutdown of Entire Stationary Source
 Shutdown of Emissions Units
 Other

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Seyed Sadredin, Executive Director /APCO

DRAFT

Arnaud Marjollet, Director of Permit Services