



San Joaquin Valley

AIR POLLUTION CONTROL DISTRICT



MAR 04 2014

Guy Schwarz
South Valley Gin #2
9759 Valpredo Road
Bakersfield, CA 93313

Re Notice of Preliminary Decision – Emission Reduction Credits
Facility Number S-2315
Project Number S-1122743

Dear Mr Schwarz

Enclosed for your review and comment is the District's analysis of South Valley Gin #2's application for Emission Reduction Credits (ERCs) resulting from the shutdown of a cotton gin, at 27300 Old River Road in Bakersfield. The quantity of ERCs proposed for banking is 113 metric tons CO₂e/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,

David Warner
Director of Permit Services

DW SR/st

Enclosures

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

Seyed Sadredin
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34946 Flyover Court
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San Joaquin Valley Air Pollution Control District

ERC Application Review - Greenhouse Gases

Cotton Gin Shutdown

Facility Name	South Valley Gins, Inc	Date	February 14, 2014
Mailing Address	9759 Valpredo Road Bakersfield, CA 93313	Engineer	Steve Roeder
Contact Person	Guy Schwarz	Lead Engineer	Leonard Scandura
Telephone	(661) 858-2477		
Project #	S-1122743		
Received	July 16, 2012		
Deemed Complete	April 1, 2013		
ERC #	S-4213-24		

I Summary

The primary business of this facility is cotton ginning. South Valley Gins has surrendered the Permit to Operate (PTO) for their cotton gin (S-2315-1-12) following the permanent shutdown after the 2010 ginning season. The facility had submitted an application to bank the emission reduction credits (ERCs) for the actual emission reductions (AER) of the criteria pollutants on 2/2/11 (ERC Project S-1110287).

Subsequently, the facility has submitted this application to bank the Greenhouse Gas (GHG) AER that also resulted for the shutdown of their gin. See the surrendered (PTO) in Appendix A.

Selection of Geographical Boundary for Determining Permanence of the GHG Emission Reduction

Rule 2301 contains several eligibility criteria for emission reduction credit banking, including that the emission reduction must be permanent. When determining the geographical boundary in which the emission reduction is determined to be permanent, the applicant may consider how the GHG ERC may likely be used.

Please note that while Rule 2301 allows facilities to receive ERCs for GHG emission reductions, the District does not have any requirements on the use of GHG ERCs. However, it is anticipated that the likely uses of such GHG ERCs would be their future retirement as GHG mitigation in the California Environmental Quality Act (CEQA) process.

Pursuant to CEQA, lead agencies must consider the environmental impact of GHG emissions from a project and may require that such GHG emissions be mitigated. In evaluating various mitigation techniques, including the retirement of GHG ERCs, the lead agency must determine if the proposed mitigation technique adequately mitigates the project's GHG emission increase.

When a lead agency determines if the retirement of a particular GHG ERC provides adequate GHG mitigation for a project, the lead agency may choose to consider the location where the GHG ERC was generated and the geographical boundary used to determine the permanence of the emission reduction. In making this determination, the lead agency may conclude that the retirement of a particular GHG ERC would provide adequate mitigation for projects within that same geographical boundary. Again, that determination will be made by the lead agency for any particular project.

For this application, the facility has selected California as the geographical boundary for which the emission reduction is permanent. Information has been provided to validate this geographical boundary selection. Using this geographical boundary, it was determined that the GHG emission reduction is permanent within California.

The following AER qualify for ERC banking.

GHG ERCs		
ERC Certificate	Pollutant	Amount
S-4213-24	CO ₂ e	113 metric tons/year

II. Applicable Rules

Rule 2301 Emission Reduction Credit Banking (1/19/12)

III. Location of Reduction

The equipment was located at 27300 Old River Road in Bakersfield.

IV. Method of Generating Reductions

The emission reductions were generated by the shutdown of a permitted cotton ginning operation. The GHG were emitted from the cotton drying equipment which was fired on natural gas.

Equipment Description

S-2315-1-12: 15.0 MMBTU/HR COTTON GIN #2 SERVED BY 36 1D-3D CYCLONES WITH 2 WAGON SUCTION ASSEMBLIES, 6 INCLINE CLEANERS, 5 DRYERS WITH 3 HEATERS, 3 GIN STANDS, 6 COMBING LINT CLEANERS, BATTERY CONDENSER, MOTES SYSTEM, S.J. MOISTURIZER, 2 ENCLOSED TRASH TRAILER LOADOUTS AND OVERFLOW SYSTEM

V. Calculations

A. Assumptions and Emission Factors

Assumptions

- Units of GHG AER is metric tons of CO₂e per year, rounded to the nearest metric ton
- 1,000 kg = 1 metric ton
- 1 therm of Natural Gas = 100 scf
- The final CO₂e emission factor from the combustion of natural gas includes GHG emissions of CO₂, CH₄ and N₂O, where the total emission factor includes the summation of each of the compounds multiplied by their Global Warming Potential (GWP)
- The emission factors are from the District's Spreadsheet: *ARB GHG Emission Factors*

Emission Factors (EF)

The emission factors, global warming potential, and CO₂ equivalent emission factors for CO₂, CH₄, and N₂O are shown in the following table.

Natural Gas Emission Factors					
Pollutant	kg/MMBtu	0.1 MMBtu/therm	GWP	CO ₂ e EF	
CO ₂	52.87	0.1	1.00	5.287	kg-CO ₂ e /therm
CH ₄	0.0009	0.1	21.00	0.0019	kg-CO ₂ e /therm
N ₂ O	0.0001	0.1	310.0	0.0031	kg-CO ₂ e /therm
CO ₂ e				5.292	kg-CO ₂ e /therm

The CO₂e emission factor is converted into metric tons/therm as follows:

$$\frac{5.292 \text{ kg} \cdot \text{CO}_2\text{e}}{\text{therm}} \times \frac{1 \text{ metric ton}}{1,000 \text{ kg}} = 0.00529 \frac{\text{metric tons} \cdot \text{CO}_2\text{e}}{\text{therm}}$$

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 original ERC Banking Project S-1110287 specified the baseline period as the operating years 2006 and 2007. Since the District has already established this as the correct baseline period for the criteria pollutant emission reductions that have already been evaluated and issued, the same baseline period is used for this evaluation.

Therefore the Baseline Period is the operating years of 2006 and 2007.

C. Baseline Data

The baseline natural gas-use is taken from the annual fuel-use records that have been supplied by the applicant, as evaluated in ERC project S-1110287, and is posted in the following table.

Baseline Fuel Usage	
Year	Annual Fuel Use (Therms)
2006	27,315
2007	15,285

D. Historical Actual Emissions (HAE)

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

CO ₂ e HAE						
2006	0.00529	metric tons/therm x	27,315	therms/yr =	144	metric tons/yr
2005	0.00529	metric tons/therm x	15,285	therms/yr =	81	metric tons/yr
Average					113	metric tons/yr

E. Post Project Potential to Emit (PE2)

As discussed above, the subject equipment has been permanently shut down and its PTO was surrendered. Therefore the PE2 is 0.

F. Emission Reductions Eligible for Banking

The emission reductions eligible for banking are the difference between the historical actual emissions and the potential to emit after the project.

$$\begin{aligned} \text{ERCs eligible for banking} &= 113 \text{ metric ton/year} - 0 \text{ ton/year} \\ &= 113 \text{ metric ton/year} \end{aligned}$$

VI. Compliance

Rule 2301 – Emission Reduction Credit Banking

Regarding GHG, the purpose of this Rule is to:

- 1.2.1 Provide an administrative mechanism for sources to bank voluntary greenhouse gas emission reductions for later use.
- 1.2.2 Provide an administrative mechanism for sources to transfer banked greenhouse gas emission reductions to others for any use.
- 1.2.3 Define eligibility standards, quantitative procedures and administrative practices to ensure that banked greenhouse gas emission reductions are real, permanent, quantifiable, surplus, and enforceable.

Section 4 5 specifies eligibility criteria for GHG emission reductions to qualify for banking
Below is a summary of each criteria and a description of how the emission reductions satisfy the criteria

Section 4 5 1 requires that the emission reduction must have occurred after 1/1/05

The emission reductions occurred when the PTO was surrendered on 1/1/06 As the emission reduction occurred after 1/1/05, this criteria has been satisfied

Section 4 5 2 requires that the emissions must have occurred in the District

The emissions occurred at 27300 Old River Road in Bakersfield, CA Since this location is within the District, this criteria has been satisfied

Section 4 5 3 requires that the emission reductions must be real, surplus, permanent, quantifiable, and enforceable

Real

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

Surplus

The facility is not subject to the CARB cap and trade regulation, and the emission reductions occurred prior to 1/1/12 Therefore, the emission reductions satisfy the surplus requirement in Section 4 5 3 1

There are no laws, rules, regulations, agreements orders, or permits requiring any GHG emission reductions from cotton gins Therefore, the emission reductions satisfy the surplus requirement in Section 4 5 3 2

The emission reductions are not the result of an action taken by the permittee to comply with any requirement The emission reductions are surplus and additional of all requirements Therefore, the emission reductions satisfy the surplus requirement in section 4 5 3 4

The Certificates will be identified according to Section 6 15 3 below

Permanent

The cotton gin has been shut down, removed, and the PTO has been surrendered

When determining the geographical boundary in which the emission reduction is determined to be permanent the applicant may consider how the GHG ERC may likely be used

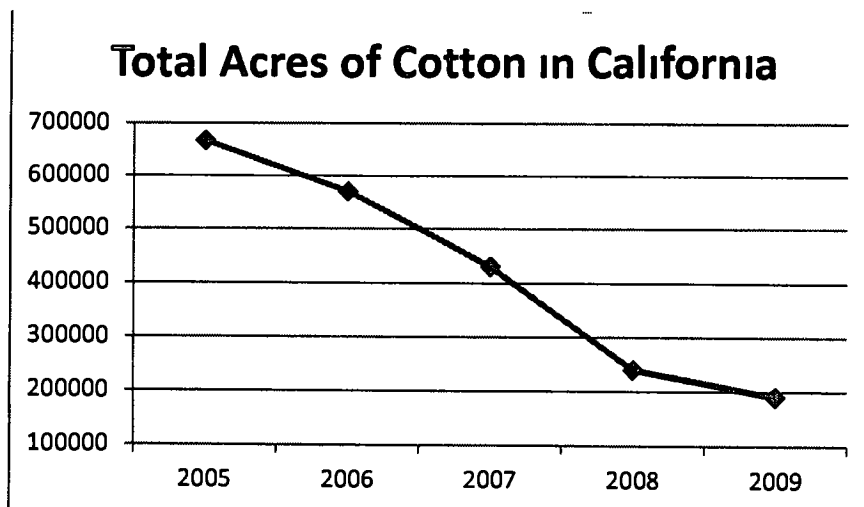
Please note that the while Rule 2301 allows facilities to receive ERCs for GHG emission reductions, the District does not have any requirements on the use of GHG ERCs. However, it is anticipated that the likely uses of such GHG ERCs would be their future retirement as GHG mitigation in the CEQA process.

Pursuant to CEQA, lead agencies must consider the environmental impact of GHG emissions from a project and may require that such GHG emissions be mitigated. In evaluating various mitigation techniques, including the retirement of GHG ERCs, the lead agency must determine if the proposed mitigation technique adequately mitigates the projects GHG emission increase.

When a lead agency determines if the retirement of a particular GHG ERC provides adequate GHG mitigation for a project, the lead agency may choose to consider the location where the GHG ERC was generated and the geographical boundary used to determine the permanence of the emission reduction. The in making this determination, the lead agency may conclude that the retirement of a particular GHG ERC would provide adequate mitigation for projects within that same geographical boundary. Again, that determination will be made by the lead agency for a particular project.

This facility has selected California as the geographical boundary for which the emission reduction is permanent. Information has been provided below to validate this geographical boundary selection.

As shown in the following chart, the total cotton acreage has been on a decline since January of 2005. Acreage has declined from 667,000 acres in 2005 down to 190,065 acres in 2009. The decline in acreage forced the closure of several cotton gins in California.



Because there has been a decrease in the amount of cotton being grown in the state of California the need to gin cotton in California has decreased accordingly

Based on this information, the geographical boundary for which the emission reduction is permanent within California

The ERC will include the following identifier

"Shutdown of cotton gin verified as permanent within the State of California"

Quantifiable

The actual emissions were calculated from historic fuel-use records and accepted emission factors. Therefore, the emission reductions are quantifiable and have been quantified.

Enforceable

The cotton gin has been shut down and the PTO has been surrendered to the District. Operation of the equipment without a valid permit would subject the permittee to enforcement action. Therefore, the emission reductions are enforceable.

Section 4 5 4 requires that GHG emission reductions be calculated as the difference between the historic annual average GHG emissions (as CO₂e) and the PE2 after the reduction is complete. The historical GHG emissions must be calculated using the consecutive 24 month period immediately prior to the date the emission reductions occurred (the shutdown of the cotton gin), or another consecutive 24 month period in the 60 months prior to the date the emission reduction occurred if determined by the APCO as being more representative of normal operations.

The GHG emission reductions were calculated according to the baseline period identified above. Since this is a permanent shutdown of the cotton gin, with none of the load being shifted to any other gin in California, there is no post-project potential to emit GHG.

Section 4 5 5 5 requires that GHG emission reductions proposed to be quantified using CARB-approved emission reduction project protocols shall be calculated in accordance with the applicable protocol.

Since the GHG emission reductions are not subject to an applicable CARB-approved emission reduction project protocol, this section is not applicable.

Section 4.5.6 requires that ERCs shall be made enforceable through permit conditions or legally binding contract.

The cotton gin held a legal District operating permit. That permit has been surrendered to the District. Since the operation of the cotton gin would require a new Authority to Construct, as discussed above the emission reduction is enforceable.

Section 5 identifies ERC Certificate application procedures.

Section 5.5.2 requires, for emission reductions occurring prior to 1/19/12, applications for ERCs must be submitted by 7/19/12.

The ERC application was submitted on 7/19/12, therefore the application is timely.

Section 6.15 specifies the registration requirements for GHG ERCs.

This emission reductions are surplus and additional of all requirements pursuant to Section 4.5.3.4. Therefore the ERC certificate shall include the following notation:

“This emission reduction is surplus and additional to all applicable regulatory requirements.”

Compliance with Rule 2301 has been demonstrated and no adjustments are required under this Rule.

VII. Recommendation

Issue the ERC Certificate in the amount posted in the table below and on the Draft ERC Certificate in Appendix B.

GHG ERCs		
ERC Certificate	Pollutant	Amount
S-4213-24	CO ₂ e	113 metric tons/year

List of Appendixes

- A. Surrendered PTO
- B. Draft Emission Reduction Credit Certificate

Appendix A

Surrendered PTO

San Joaquin Valley Air Pollution Control District

PERMIT UNIT S-2315 1-12

EXPIRATION DATE 01/31/2014

SECTION 29 TOWNSHIP 32S RANGE 27E

EQUIPMENT DESCRIPTION

16 0 MMBTU/HR COTTON GIN #2 SERVED BY 36 1D 3D CYCLONES WITH 2 WAGON SUCTION ASSEMBLIES 6 INCLINE CLEANERS 5 DRYERS WITH 3 HEATERS 3 GIN STANDS 6 COMBING LINT CLEANERS, BATTERY CONDENSER MOTES SYSTEM, S J MOISTURIZER 2 ENCLOSED TRASH TRAILER LOADOUTS AND OVERFLOW SYSTEM

PERMIT UNIT REQUIREMENTS

- 1 No air contaminant shall be released into the atmosphere which causes a public nuisance [District Rule 4102]
- 2 Particulate matter emissions shall not exceed 0 1 grains/dscf in concentration [District Rule 4201]
- 3 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 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 Material removed from dust collector(s) shall be disposed of in a manner preventing entrainment into the atmosphere [District Rule 2201]
- 6 Daily PM10 emissions shall not exceed 647 9 lb PM10/day [District Rule 2201]
- 7 Annual ginning rate of the cotton gin shall not exceed 17,500 tons of baled cotton per year (70 000 bales per year, based on 500-pound bales) [District Rule 2201]
- 8 Daily ginning rate of the cotton gin shall not exceed 178 tons of baled cotton per day (712 bales per day, based on 500-pound bales) [District Rule 2201]
- 9 Motes B bypass system shall not operate at the same time as the motes B System [District Rule]
- 10 Total PM10 emissions from the cotton gin operation shall not exceed 3 64 pounds per ton of baled cotton (0 91 pounds per bale, corrected to 500-pound bales) [District Rule 2201]
- 11 Emissions of PM10 from the cyclone system serving the unloading system shall not exceed 0 11 pounds per bale, based on 500-pound bales [District Rule 2201]
- 12 Emissions of PM10 from the cyclone system serving the #1 pre-cleaning system shall not exceed 0 21 pounds per bale, based on 500-pound bales [District Rule 2201]
- 13 Emissions of PM10 from the cyclone system serving the #2 pre-cleaning system shall not exceed 0 09 pounds per bale, based on 500-pound bales [District Rule 2201]
- 14 Emissions of PM10 from the cyclone system serving the #3 pre-cleaning system shall not exceed 0 09 pounds per bale, based on 500-pound bales [District Rule 2201]
- 15 Emissions of PM10 from the cyclone system serving the overflow system shall not exceed 0 04 pounds per bale, based on 500-pound bales [District Rule 2201]

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

Facility Name: SOUTH VALLEY GINS INC
Location: OLD RIVER RD 1 MI N OF COPUS BAKERSFIELD CA
S-2315-1 12 Jan 27 2008 4:05PM DAVIDSOS

- 16 Emissions of PM10 from the cyclone system serving the gin stand/feeder trash system shall not exceed 0 10 pounds per bale, based on 500-pound bales [District Rule 2201]
- 17 Emissions of PM10 from the cyclone system serving the lint cleaning system shall not exceed 0 13 pounds per bale, based on 500 pound bales [District Rule 2201]
- 18 Emissions of PM10 from the cyclone system serving the battery condenser system shall not exceed 0 03 pounds per bale, based on 500-pound bales [District Rule 2201]
- 19 Emissions of PM10 from the cyclone system serving the notes A system shall not exceed 0 07 pounds per bale, based on 500-pound bales [District Rule 2201]
- 20 Emissions of PM10 from the cyclone system serving the notes B system (including bypass) shall not exceed 0 02 pounds per bale, based on 500-pound bales [District Rule 2201]
- 21 Emissions of PM10 from the cyclone system serving the notes cleaner trash system shall not exceed 0 02 pounds per bale, based on 500-pound bales [District Rule 2201]
- 22 Emissions from the natural gas-fired burners shall not exceed any of the following 0 1 lb-NOx/MMBtu, 0 0029 lb-SOx/MMBtu, 0 005 lb-VOC/MMBtu or 0 08 lb-CO/MMBtu [District Rule 2201]
- 23 The unloading system shall be served by three 42-inch 1D-3D cyclone collectors [District Rule 2201]
- 24 The #1 pre-cleaning system (1st two incline cleaners incorporate stick machines) shall be served by four 42-inch 1D-3D cyclone collectors [District Rule 2201]
- 25 The #2 pre-cleaning system shall be served by six 36-inch 1D 3D cyclone collectors [District Rule 2201]
- 26 The #3 pre-cleaning system shall be served by six 36 inch 1D-3D cyclone collectors [District Rule 2201]
- 27 The overflow system shall be served by one 46-inch 1D-3D cyclone collector [District Rule 2201]
- 28 The gin stand/feeder trash system shall be served by two 38-inch 1D 3D cyclone collectors [District Rule 2201]
- 29 The lint cleaning system shall be served by six 58-inch 1D 3D cyclone collectors [District Rule 2201]
- 30 The battery condenser system shall be served by two 66-inch 1D-3D cyclone collectors [District Rule 2201]
- 31 The notes A system shall be served by two 54-inch 1D-3D cyclone collectors [District Rule 2201]
- 32 The notes B system shall be served by one 30-inch 1D-3D cyclone collectors [District Rule 2201]
- 33 The notes B bypass system shall be served by one 30-inch 1D-3D cyclone collectors [District Rule 2201]
- 34 The notes cleaner trash system shall be served by two 30 inch 1D-3D cyclone collectors [District Rule 2201]
- 35 All cyclones shall operate at a inlet air velocity of 3,200 \pm 400 ft/min [District Rule 2201]
- 36 Daily records of the number and weight of bales produced shall be maintained retained for at least five years, and shall be made readily available for District inspection upon request. [District Rule 1070]

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

Facility Name SOUTH VALLEY GINS INC
Location OLD RIVER RD 1 MI N OF COPUS BAKERSFIELD CA
S-2315-1 12 Jan 27 2008 4:05PM DAVIDR08

Appendix B
Draft ERC Certificate

San Joaquin Valley
Air Pollution Control District

Southern Regional Office • 34946 Flyover Court • Bakersfield CA 93308

Emission Reduction Credit Certificate

S-4213-24

ISSUED TO SOUTH VALLEY GINS INC
ISSUED DATE <DRAFT>
LOCATION OF REDUCTION OLD RIVER RD, 1 MI N OF COPUS
BAKERSFIELD, CA

For CO2E Reduction In The Amount Of:

113 metric tons / year

☐ Conditions Attached

Method Of Reduction

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

Shutdown of cotton gin verified as permanent within the State of California

Emission Reduction Qualification Criteria

This emission reduction is surplus and additional to all applicable regulatory requirements

Seyed Sadredin Executive Director / APCO

David Warner, Director of Permit Services