



NOV 20 2013

Phil Castro
E & J Winery
5610 E Olive Ave
Fresno, CA 93727

Re: Notice of Preliminary Decision – Emission Reduction Credits
Facility Number: C-447
Project Number: C-1101396

Dear Mr. Castro:

Enclosed for your review and comment is the District's analysis of E & J Winery's application for Emission Reduction Credits (ERCs) resulting from the replacement of a 650 bhp diesel engine (C-447-22) with an electric motor (C-447-230), at 5610 E Olive Ave in Fresno. The quantity of ERCs proposed for banking is 2,315 lb-NOx/yr, 4 lb-SOx/yr, 10 lb-PM10/yr, 1,654 lb-CO/yr, and 86 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. Thom Maslowski of Permit Services at (559) 230- 5906.

Sincerely,

David Warner
Director of Permit Services

DW:TM

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
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

Emission Reduction Credit Banking Application Review

Shutdown of Diesel Engine

Processing Engineer: Thom Maslowski
Lead Engineer: Joven Refuerzo
Date: November 18, 2013

Facility Name: E & J Gallo Winery
Mailing Address: 5610 E Olive
Fresno, CA 93727

Contact Name: Phil Castro – Plant Manager – Fresno Winery
Phone: (559) 458-2417

Facility Location: 5610 E Olive
Fresno, CA 93727

Deemed Complete Date: May 27, 2010
Project Number: C-1101396

I. Summary:

E & J Gallo Winery (E & J Gallo) operates a winery in Fresno, CA. The facility replaced a 650 bhp Tier 0 diesel-fired engine (Permit To Operate C-447-22) with an electric motor (Permit To Operate C-447-230) in December of 2009. Therefore, the facility is applying for NO_x, CO, VOC, PM₁₀ and SO_x emissions reduction credits for the shutdown of the engine. The Permit To Operate C-447-22 has been replaced by C-447-230 (issued through minor modification project C-1095121) and both are included in Attachment A.

Based on the historical operating data prior to the shutdown, the amounts of bankable Actual Emission Reductions (AER's) for NO_x, CO, VOC, PM₁₀ and SO_x emissions are as shown in the table below. These values are calculated in Section V of this document:

Summary of ERC Amounts				
Pollutant	1st Qtr ERC's (lb/qtr)	2nd Qtr ERC's (lb/qtr)	3rd Qtr ERC's (lb/qtr)	4th Qtr ERC's (lb/qtr)
NO _x	612	605	563	535
SO _x	1	2	1	1
PM ₁₀	32	32	31	29
CO	437	432	403	382
VOC	23	22	21	20

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 4001 New Source Performance Standards (4/14/99)
Rule 4201 Particulate Matter Concentration (12/17/92)
Rule 4702 Internal Combustion Engines- Phase 2 (8/18/11)
Rule 4801 Sulfur Compounds (12/17/92)
Title 17 CCR, Section 93116- Airborne Toxic Control Measure (ATCM) for Diesel
Particulate Matter Rated at 50 Horsepower and Greater

III. Location of Reductions:

Physical Location of Equipment: 5610 E Olive in Fresno, CA.

IV. Method of Generating Reductions:

The AER's were generated by replacing the diesel-fired IC engine C-447-22-0 with an electrical motor. The equipment description for the unit is as follows:

C-447-22-0:

650 HP CATERPILLAR MODEL 3412 V-12 DIESEL-FIRED LOW-USE IC
ENGINE

V. Calculations:

A. Assumptions

Density of diesel fuel:	7.1 lb/gal
EPA F-factor (adjusted to 60 °F):	9,051 dscf/MMBtu
Fuel heating value:	137,000 Btu/gal
BHP to Btu/hr conversion:	2,542.5 Btu/bhp-hr

B. Emission Factors (EF's)

This engine was never source tested for PM₁₀ emissions. Therefore, the historical actual emissions during the baseline period will be calculated utilizing the permitted emission factor; as presented in the table below.

Pollutant	Current Permit (g/bhp-hr)	HAE EF (g/bhp-hr)
NOx	6.3	6.3
SOx	0.17*	0.17*
PM10	0.24	0.24
CO	2.0	2.0
VOC	0.1	0.1

$$* \frac{0.0005 \text{ lb} - S}{\text{lb} - \text{fuel}} \times \frac{7.1 \text{ lb} - \text{fuel}}{\text{gallon}} \times \frac{2 \text{ lb} - SO_2}{1 \text{ lb} - S} \times \frac{1 \text{ gal}}{137,000 \text{ Btu}} \times \frac{1 \text{ bhp input}}{0.35 \text{ bhp out}} \times \frac{2,542.5 \text{ Btu}}{\text{bhp} - \text{hr}} \times \frac{453.6 \text{ g}}{\text{lb}} = 0.17 \frac{\text{g} - SO_x}{\text{bhp} - \text{hr}}$$

C. Baseline Period Determination and Data

Baseline Period Determination:

In accordance with District Rule 2201, Section 3.8, the baseline period is the two consecutive years of operation immediately prior to the submission of the complete application; **or** another period of at least two consecutive years within the five years immediately prior to the submission of the complete application if it is more representative of Normal Source Operations (NSO).

The primary purpose of this facility is a winery. The facility has furnished hourly usage records from their facility dating from January 2002 through September 2009. The baseline period has been determined to be the **two year period dating from January 2005 to December 2006** (see Attachment C for the Baseline Period Determination Calculations).

Baseline Period Data:

Year	Quarter 1 (hr/qtr)	Quarter 2 (hr/qtr)	Quarter 3 (hr/qtr)	Quarter 4 (hr/qtr)	Total
2005	146	237	175	131	689
2006	193	98	137	165	593

PTO C-447-22-0 limits the operation of the engine to no more than 1,000 hours in any calendar year and as shown in the table above the baseline period is in compliance with this requirement.

D. Historical Actual Emissions (HAE's)

NO_x Emissions:

As shown above, a NO_x emission factor of 6.3 g/bhp-hr will be used to calculate the HAE's from the shutdown of the engine. Therefore, the historical actual NO_x emissions can be estimated using this emission factor and hours used above.

$$\text{NO}_x \text{ HAE} = 6.3 \text{ g/bhp-hr} \times \text{quarterly usage (hours/qtr)} \times 650 \text{ bhp} / 453.6 \text{ (g/lb)}$$

NO _x HAE				
Year	Q1 (lb/quarter)	Q2 (lb/quarter)	Q3 (lb/quarter)	Q4 (lb/quarter)
2005	1,318	2,140	1,580	1,183
2006	1,742	885	1,237	1,490
Average	1,530	1,513	1,409	1,337

SO_x Emissions:

As shown above, a SO_x emission factor of 0.17 g/bhp-hr will be used to calculate the HAE's from the shutdown of the engine. Therefore, the historical actual SO_x emissions can be estimated using this emission factor and hours used above.

$$\text{SO}_x \text{ HAE} = 0.17 \text{ g/bhp-hr} \times \text{quarterly usage (hours/qtr)} \times 650 \text{ bhp} / 453.6 \text{ (g/lb)}$$

SO _x HAE				
Year	Q1 (lb/quarter)	Q2 (lb/quarter)	Q3 (lb/quarter)	Q4 (lb/quarter)
2005	36	58	43	32
2006	47	24	33	40
Average	42	41	38	36

PM₁₀ Emissions:

As shown above, a PM₁₀ emission factor of 0.24 g/bhp-hr will be used to calculate from the shutdown of the engine. Therefore, the historical actual PM10 emissions can be estimated using this emission factor and hours used above.

$$\text{PM}_{10} \text{ HAE} = 0.24 \text{ g/bhp-hr} \times \text{quarterly usage (hours/qtr)} \times 650 \text{ bhp} / 453.6 \text{ (g/lb)}$$

PM10 HAE				
Year	Q1 (lb/quarter)	Q2 (lb/quarter)	Q3 (lb/quarter)	Q4 (lb/quarter)
2005	50	82	60	45
2006	66	34	47	57
Average	58	58	54	51

CO Emissions:

As shown above, a CO emission factor of 2.0 g/bhp-hr will be used to calculate the HAE's from the shutdown of the engine. Therefore, the historical actual CO emissions can be estimated using this emission factor and hours used above.

$$\text{CO HAE} = 2.0 \text{ g/bhp-hr} \times \text{quarterly usage (hours/qtr)} \times 650 \text{ bhp} / 453.6 \text{ (g/lb)}$$

CO HAE				
Year	Q1 (lb/quarter)	Q2 (lb/quarter)	Q3 (lb/quarter)	Q4 (lb/quarter)
2005	418	679	502	375
2006	553	281	393	473
Average	486	480	448	424

VOC Emissions:

As shown above, a VOC emission factor of 0.1 g/bhp-hr will be used to calculate the HAE's from the shutdown of the engine. Therefore, the historical actual VOC emissions can be estimated using this emission factor and hours used above.

$$\text{VOC HAE} = 0.1 \text{ g/bhp-hr} \times \text{quarterly usage (hours/qtr)} \times 650 \text{ bhp} / 453.6 \text{ (g/lb)}$$

VOC HAE				
Year	Q1 (lb/quarter)	Q2 (lb/quarter)	Q3 (lb/quarter)	Q4 (lb/quarter)
2005	21	34	25	19
2006	28	14	20	24
Average	25	24	23	22

E. Adjustments to HAE's

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.

Adjustment for Rule 2201 – New and Modified Stationary Source Review Rule:

Section 2.0 states that this rule shall apply to all new stationary sources and all modifications to existing stationary sources which are subject to the District permit requirements and after construction emit, or may emit, one or more affected pollutants.

As discussed above, E & J Gallo is proposing to receive emission reduction credits for the shutdown of a diesel engine at this location. This facility is not a new stationary source and the shutdown of this engine does not meet the definition of a modification. Therefore, Rule 2201 does not apply at this time.

This engine was previously subject to District Rule 2201 when the original permit was issued. Based on the actual production records provided by E & J Gallo this engine demonstrated compliance with all of the Rule 2201 requirements (best available control technology (BACT), daily emission limits, etc.). Therefore, no adjustment to the calculated HAE's above is necessary.

Adjustment for Rule 4001 New Source Performance Standards (NSPS):

40 CFR 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

This subpart only applies to emergency IC engines, since the engine was not operated as an emergency IC engine at time of replacement this subpart is not applicable and no adjustment is necessary.

Adjustment for Rule 4201 – Particulate Matter Concentration:

Particulate matter emissions from the engine will be less than or equal to the rule limit of 0.1 grain per cubic foot of gas at dry standard conditions as shown by the following:

$$0.24 \frac{g - PM_{10}}{bhp - hr} \times \frac{1g - PM_{10}}{0.96g - PM_{10}} \times \frac{1bhp - hr}{2,542.5 Btu} \times \frac{10^6 Btu}{9,051 dscf} \times \frac{0.35 Btu_{out}}{1 Btu_{in}} \times \frac{15.43 grain}{g} = 0.05856 \frac{grain - PM}{dscf}$$

$$GL = 0.05856 \text{ grain/dscf} < 0.1 \text{ grain/dscf}$$

Therefore, the emission factor used to calculate the actual PM emission concentration from engine meets the requirements for this rule and no adjustment is necessary.

Adjustment for Rule 4702 Internal Combustion Engines – Phase 2:

This rule specifies the emission limits of NO_x, CO and VOC from internal combustion engines. Per section 5.1.2 Compression-Ignited Internal Combustion Engine Emission Limits/Standards and Compliance Schedules – The owner of a compression-ignited internal combustion engine shall repower, replace or control the engine to comply with the applicable limits/standards and compliance dates in Table 2. Table 2 states that engines greater than 500 bhp but not more than 750 bhp and less than 1000 annual operating hours meet the EPA Tier 3 rating by January 1, 2010. Therefore the emission limits are: NO_x 2.8 g/bhp-hr, CO 2.8 g/bhp-hr and VOC 0.2 g/bhp-hr.

However, the NO_x emission factor used to calculate the HAE's from this boiler does not meet the current requirements of this rule. Therefore, in accordance with District Rule 2201, Section 3.22, the NO_x HAE's must be discounted for the emissions reduction which are required by this rule. The discounted NO_x HAE's will be calculated using the Rule 4702 emission limit of 2.8 g/bhp-hr and the fuel usage rates listed above.

$$\text{NO}_x \text{ HAE} = 2.8 \text{ g/bhp-hr} \times \text{quarterly usage (hours/qtr)} \times 650 \text{ bhp} / 453.6 \text{ (g/lb)}$$

NO _x HAE				
Year	Q1 (lb/quarter)	Q2 (lb/quarter)	Q3 (lb/quarter)	Q4 (lb/quarter)
2005	586	951	702	526
2006	774	393	550	662
Average	680	672	626	594

Adjustment for Rule 4801 - Sulfur Compounds:

Rule 4801 requires that sulfur compound emissions (as SO₂) shall not exceed 0.2% by volume. Using the ideal gas equation, the sulfur compound emissions are calculated as follows:

$$\text{Volume SO}_2 = (n \times R \times T) \div P$$

$$n = \text{moles SO}_2$$

$$T \text{ (standard temperature)} = 60 \text{ }^\circ\text{F or } 520 \text{ }^\circ\text{R}$$

$$R \text{ (universal gas constant)} = \frac{10.73 \text{ psi} \cdot \text{ft}^3}{\text{lb} \cdot \text{mol} \cdot \text{ }^\circ\text{R}}$$

$$\frac{0.0005 \text{ lb} - \text{S}}{\text{lb} - \text{fuel}} \times \frac{7.1 \text{ lb}}{\text{gal}} \times \frac{64 \text{ lb} - \text{SO}_2}{32 \text{ lb} - \text{S}} \times \frac{1 \text{ MMBtu}}{9,051 \text{ scf}} \times \frac{1 \text{ gal}}{0.137 \text{ MMBtu}} \times \frac{\text{lb} - \text{mol}}{64 \text{ lb} - \text{SO}_2} \times \frac{10.73 \text{ psi} \cdot \text{ft}^3}{\text{lb} - \text{mol} \cdot \text{ }^\circ\text{R}} \times \frac{520^\circ\text{R}}{14.7 \text{ psi}} \times 1,000,000 = 3.8 \text{ ppmv}$$

Since 3.8 ppmv is ≤ 2,000 ppmv, the HAE's for SO_x emissions from the engine were determined using emission factors that were in compliance with the requirements of this rule and adjustments are not necessary.

Adjustment for Title 17 California Code of Regulations (CCR), Section 93116- Airborne Toxic Control Measure (ATCM) for Portable Engines Rated at 50 Horsepower and Greater:

The purpose of this regulation is to reduce diesel particulate matter (PM) and criteria pollutant emissions from stationary diesel fueled compression ignition engines. Per Section 3 subpart (a)(1) the engine is required to operate with CARB Diesel fuel which gives a SOx emission factor of 0.0051 g/bhp-hr. Per section 3 subpart (b) In-Use Stationary Prime Diesel-Fueled CI Engine (>50 bhp) Emission Standards, except as provided in section 93115.3, no owner or operator shall operate an in-use stationary prime diesel-fueled CI engines (>50) in California unless it is certified to meet a federal or California standard for newly manufactured nonroad engines pursuant to 40 CFR Part 89 or Title 13 of the California Code of Regulations (that is, certified to Tier 1,2 or 3 nonroad engine standards), which has a Tier 3 standard of 0.15 g/bhp-hr.

However, the PM10 and SOX emission factor used to calculate the HAE's from this engine does not meet the current requirements of this rule. Therefore, in accordance with District Rule 2201, Section 3.22, the PM10 and SOx HAE's must be discounted for the emissions reduction which are required by this rule. The discounted PM10 and SOx HAE's will be calculated using the ATCM emission limits of 0.15 g/bhp-hr and 0.0051 g/bhp-hr respectively with the fuel usage rates listed above.

$$PM_{10} \text{ HAE} = 0.15\text{g/bhp-hr} \times \text{quarterly usage (hours/qtr)} \times 650 \text{ bhp} / 453.6 \text{ (g/lb)}$$

PM10 HAE				
Year	Q1 (lb/quarter)	Q2 (lb/quarter)	Q3 (lb/quarter)	Q4 (lb/quarter)
2005	31	51	38	28
2006	41	21	29	35
Average	36	36	34	32

SO_x Emissions:

$$SO_x \text{ HAE} = 0.0051 \text{ g/bhp-hr} \times \text{quarterly usage (hours/qtr)} \times 650 \text{ bhp} / 453.6 \text{ (g/lb)}$$

SO _x HAE				
Year	Q1 (lb/quarter)	Q2 (lb/quarter)	Q3 (lb/quarter)	Q4 (lb/quarter)
2005	1	2	1	1
2006	1	1	1	1
Average	1	2	1	1

$$** \frac{0.000015 \text{ lb-S}}{\text{lb-fuel}} \times \frac{7.1 \text{ lb-fuel}}{\text{gallon}} \times \frac{2 \text{ lb-SO}_2}{1 \text{ lb-S}} \times \frac{1 \text{ gal}}{137,000 \text{ Btu}} \times \frac{1 \text{ bhp input}}{0.35 \text{ bhp out}} \times \frac{2,542.5 \text{ Btu}}{\text{bhp-hr}} \times \frac{453.6 \text{ g}}{\text{lb}} = 0.0051 \frac{\text{g-SO}_x}{\text{bhp-hr}}$$

Total Adjusted Historical Actual Emissions

Based on the discussions here in Section V.E, the adjustments made to the emission factors are summarized in the table below.

Pollutant	Current Permit (g/bhp-hr)	Rule 4702 (g/bhp-hr)	ATCM (g/bhp-hr)	HAE EF (g/bhp-hr)
NOx	6.3	2.8	6.9	2.8
SOx	0.17*	-	0.0051**	0.0051
PM10	0.24	-	0.15	0.15

$$** \frac{0.000015 \text{ lb-S}}{\text{lb-fuel}} \times \frac{7.1 \text{ lb-fuel}}{\text{gallon}} \times \frac{2 \text{ lb-SO}_2}{1 \text{ lb-S}} \times \frac{1 \text{ gal}}{137,000 \text{ Btu}} \times \frac{1 \text{ bhp input}}{0.35 \text{ bhp out}} \times \frac{2,542.5 \text{ Btu}}{\text{bhp-hr}} \times \frac{453.6 \text{ g}}{\text{lb}} = 0.0051 \frac{\text{g-SO}_x}{\text{bhp-hr}}$$

F. Actual Emissions Reductions (AER's):

The total AER's are shown in the table below:

Actual Emission Reductions (AER)				
Pollutant	1 st Qtr. AER (lb/qtr)	2 nd Qtr. AER (lb/qtr)	3 rd Qtr. AER (lb/qtr)	4 th Qtr. AER (lb/qtr)
NO _x	680	672	626	594
SO _x	1	2	1	1
PM ₁₀	36	36	34	32
CO	486	480	448	424
VOC	25	24	23	22

G. Air Quality Improvement Deduction

In accordance with District Rule 2201, Sections 3.5 and 4.12.1, prior to banking, all AER's shall be discounted by 10 percent (10%) for Air Quality Improvement Deduction (AQID). The AQID for the AER's associated with this project are shown in the table below:

Air Quality Improvement Deduction (AQID)				
Pollutant	1 st Qtr. AQID (lb/qtr)	2 nd Qtr. AQID (lb/qtr)	3 rd Qtr. AQID (lb/qtr)	4 th Qtr. AQID (lb/qtr)
NO _x	68	67	63	59
SO _x	0	0	0	0
PM ₁₀	4	4	3	3
CO	49	48	45	42
VOC	3	2	2	2

H. Bankable AER's

The bankable emission reduction credits (ERC's) are determined by subtraction of the AQID's from the AER's and are summarized in the table below.

Bankable Emissions Reductions Credits (ERC's)				
Pollutant	1st Qtr ERC's (lb/qtr)	2nd Qtr ERC's (lb/qtr)	3rd Qtr ERC's (lb/qtr)	4th Qtr ERC's (lb/qtr)
NO _x	612	605	563	535
SO _x	1	2	1	1
PM ₁₀	32	32	31	29
CO	437	432	403	382
VOC	23	22	21	20

VI. Compliance:

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

A. Real

The emissions reductions were generated by the replacement of a diesel-fired IC engine powering a grinder with an electric motor. The emissions reductions were calculated based on actual historic production data and manufacturer's specifications. In this case, the permitted PM10 emissions from the grinder remains the same when the modified and electrified grinding operation was issued permit C-447-230-0. However, the PM10 emission factor for pre and post project emissions calculations were rounded, per District Policy APR 1110. Because there is no change in process rate from the grinding operation and no change in permitted PM10 emissions, all emissions generated by the diesel-fired IC engine resulting from combustion are bankable. Therefore, the allowed reductions are real.

B. Enforceable

The PTO for E & J Gallo's engine has been surrendered to the District. Operation of any of the equipment without a valid permit would subject the permittee to enforcement actions. Therefore, the reductions are enforceable.

The engine has been replaced by an electric motor, PTO C-447-230-1. Therefore, the reductions are enforceable.

C. Quantifiable

The reductions are quantifiable since they were calculated from historic production and usage data, established EF's, permitted limits, and methods according to District Rule 2201.

D. Permanent

The reductions will be permanent since the changes are major physical changes where the facility cannot revert back to the old technology. Further, any change in operation, including an increase in emissions, would require a permit from the District. If the facility were to propose an increase in emissions in the future, offsets (as ERCs) will be required for 100% of the potential increase.

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 this engine is not proposed in the APCO's adopted air quality plan.

Shutdown of the engine was voluntary and not required by any law, rule, agreement, or regulation. The ERC's are not needed for their current or proposed operations. The ERC's are not in excess of E & J Gallo's permitted emission levels. Additionally, the Historic Actual Emissions have been adjusted to ensure that if the engine continued operation the ERC's would not be in excess of any Rule requirement. Therefore, the reductions are surplus.

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

The ERC's generated by the proposed modifications were not used for the approval of any ATC 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 April 13, 2010. The facility permanently ceased operation of this engine on December 5, 2009. Therefore, the application was submitted in a timely fashion.

VII. Recommendation:

Pending a successful Public Noticing period, issue Emission Reduction Credit certificates C-1071-1 (VOC), C-1071-2 (NO_x), C-1071-3 (CO), C-1071-4 (PM₁₀), and C-1071-5 (SO_x) to E & J Gallo in accordance with the amounts specified on the draft ERC certificates in Attachment E.

Attachments:

Attachment A, Surrendered PTO C-447-22-0 and Replacement PTO C-447-230-1
Attachment B, ERC Application
Attachment C, Baseline Period Determination
Attachment D, E & J Gallo Usage Records
Attachment E, Draft ERC Certificates

Attachment A

Surrendered PTO C-447-22-0 and Replacement PTO
C-447-230-1

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-447-22-0

EXPIRATION DATE: 06/30/2007

EQUIPMENT DESCRIPTION:

650 HP CATERPILLAR MODEL 3412 V-12 DIESEL-FIRED LOW-USE IC ENGINE POWERING A 40 TON/HOUR MORBARK 1200 TUB GRINDER

PERMIT UNIT REQUIREMENTS

1. The sulfur content of the diesel fuel used shall not exceed 0.05% by weight. [District NSR Rule]
2. Operation of this engine is limited to no more than 1,000 hours in any one calendar year for all purposes combined. [District Rule 4701]
3. This engine shall be equipped with a non-resettable, totalizing, hour meter. [District Rule 4701]
4. This engine shall be equipped with a turbocharger and with an aftercooler or intercooler. [District Rule 4701]
5. This engine shall be equipped with a positive crankcase ventilation (PCV) system or a crankcase emissions control device of at least 90% control efficiency. [District Rule 2201]
6. The permittee shall maintain records of daily hours of operation and of the sulfur content of the diesel fuel used. Records shall be retained for at least two years and shall be made available to District staff upon request. [District Rule 2201]
7. Visible emissions from the grinder shall not exceed 5% opacity for a period or periods aggregating more than three minutes in any one hour. [District Rule 2201]
8. Engine operations shall not exceed 6.5 hours/day. [District Rule 2201]
9. Emissions from the engine shall not exceed any of the following limits: 6.3 g-NO_x/bhp-hr; 2.0 g-CO/bhp-hr; 0.1 g-VOC/bhp-hr; or 0.24 g-PM₁₀/bhp-hr. [District Rule 2201]
10. PM₁₀ emissions from the grinder shall not exceed 0.0088 lb/ton. [District Rule 2201]
11. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
12. 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]

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

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-447-230-1

EXPIRATION DATE: 06/30/2007

EQUIPMENT DESCRIPTION:

AGRICULTURAL WASTE COMPOSTING OPERATION INCLUDING MORBARK, MODEL 3800, ELECTRICALLY POWERED HORIZONTAL GRINDER

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. 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]
3. Maximum amount of material processed by this operation shall not exceed either of the following limits: 204 tons per day or 74,460 tons per year. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Particulate matter (PM10) emissions shall not exceed 0.01 lb/ton of material processed. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The permittee shall maintain daily records of the amount of material processed, in tons. [District Rule 2201] Federally Enforceable Through Title V Permit
6. All records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit

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

Attachment B

ERC Application

312
Received

San Joaquin Valley Air Pollution Control District

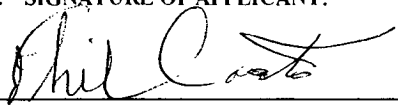
APR 13 2010

Application for

Permits Srvc
SJVAPCD

EMISSION REDUCTION CREDIT (ERC)

CONSOLIDATION OF ERC CERTIFICATES

1. ERC TO BE ISSUED TO: E & J Gallo Winery-Fresno		Facility ID: <u>C-447</u> (if known)				
2. MAILING ADDRESS: Street/P.O. Box: <u>5610 E. Olive</u> City: <u>Fresno</u> State: <u>Ca</u> Zip Code: <u>93727</u>						
3. LOCATION OF REDUCTION: Street: <u>Same location as mailing address</u> City: <u> </u> /4 SECTION <u> </u> TOWNSHIP <u> </u> RANGE <u> </u>		4. DATE OF REDUCTION: <u>December 5, 2009</u>				
5. PERMIT NO(S): <u>C-447-22</u>		EXISTING ERC NO(S):				
6. METHOD RESULTING IN EMISSION REDUCTION: <input checked="" type="checkbox"/> SHUTDOWN <input type="checkbox"/> RETROFIT <input type="checkbox"/> PROCESS CHANGE <input type="checkbox"/> OTHER DESCRIPTION: Diesel engine associated with grinder was not replaced with a Tier 3 engine in conformance with Rule 4702. Instead, the existing grinder was completely replaced with an electrical engine (C-447-230). C-447-22 for the Tier 0 engine was cancelled. Please see cover letter including copies of Executive Orders and Calculated Emissions Reduction Credits Calculations. <div style="text-align: right; font-size: small;">(Use additional sheets if necessary)</div>						
7. REQUESTED ERCs (In Pounds Per Calendar Quarter) - See Cover Letter and Summary of ERCs						
	VOC	NOx	CO	PM10	SOx	OTHER
1ST QUARTER						
2ND QUARTER						
3RD QUARTER						
4TH QUARTER						
8. SIGNATURE OF APPLICANT: 			TYPE OR PRINT TITLE OF APPLICANT: Plant Manager-Fresno Winery			
9. TYPE OR PRINT NAME OF APPLICANT: Mr. Phil Castro			DATE: 04/09/2010		TELEPHONE NO: 559-458-2417	

FOR APCD USE ONLY:

<p>RECEIVED</p> <p>APR 14 2010</p> <p>FINANCE SJVUAPCD</p>	FILING FEE RECEIVED: \$ <u>759.00, V# 1445942</u> DATE PAID: <u>4/9/10 TV</u> PROJECT NO. <u>C-1101396</u> FACILITY ID: <u>C-447</u>
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San Joaquin Valley Air Pollution Control District

Received


Application for

APR 13 2010

EMISSION REDUCTION CREDIT (ERC)

CONSOLIDATION OF ERC CERTIFICATES

Permits Srvc
SJVAPCD

1. ERC TO BE ISSUED TO: E & J Gallo Winery-Fresno		Facility ID: <u>C-447</u> (if known)				
2. MAILING ADDRESS: Street/P.O. Box: <u>5610 E. Olive</u> City: <u>Fresno</u> State: <u>Ca</u> Zip Code: <u>93727</u>						
3. LOCATION OF REDUCTION: Street: <u>Same location as mailing address</u> City: <u> </u> /4 SECTION <u> </u> TOWNSHIP <u> </u> RANGE <u> </u>		4. DATE OF REDUCTION: December 5, 2009				
5. PERMIT NO(S): <u>C-447-22</u>		EXISTING ERC NO(S):				
6. METHOD RESULTING IN EMISSION REDUCTION: <input checked="" type="checkbox"/> SHUTDOWN <input type="checkbox"/> RETROFIT <input type="checkbox"/> PROCESS CHANGE <input type="checkbox"/> OTHER DESCRIPTION: Diesel engine associated with grinder was not replaced with a Tier 3 engine in conformance with Rule 4702. Instead, the existing grinder was completely replaced with an electrical engine (C-447-230). C-447-22 for the Tier 0 engine was cancelled. Please see cover letter including copies of Executive Orders and Calculated Emissions Reduction Credits Calculations.						
(Use additional sheets if necessary)						
7. REQUESTED ERCs (In Pounds Per Calendar Quarter) – See Cover Letter and Summary of ERCs						
	VOC	NOx	CO	PM10	SOx	OTHER
1ST QUARTER						
2ND QUARTER						
3RD QUARTER						
4TH QUARTER						
8. SIGNATURE OF APPLICANT: 			TYPE OR PRINT TITLE OF APPLICANT: Plant Manager-Fresno Winery			
9. TYPE OR PRINT NAME OF APPLICANT: Mr. Phil Castro			DATE: 04/09/2010	TELEPHONE NO: 559-458-2417		

FOR APCD USE ONLY:

DATE STAMP	FILING FEE RECEIVED: \$ <u>759.00</u> # <u>01445942</u> DATE PAID: <u>4/13/10</u> <u>✓ cm</u> PROJECT NO. <u>C-1101396</u> FACILITY ID: <u>C-447</u>
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ATTACHMENT III

APPLICATION FOR THE EMISSION REDUCTION CREDIT



E. & J. GALLO WINERY

Received

APR 13 2010

Permits Srvc
SJVAPCD

April 9, 2010

Mr. Jim Swaney
San Joaquin Valley Air Pollution Control District
Permitting Services Department
1990 E. Gettysburg Avenue
Fresno, CA 93726-6244

RE: E&J Gallo Winery-Fresno, C-447
Request Emissions Reduction Credits
Shutdown of 650 HP Grinder Engine (C-447-22)

Dear Mr. Swaney:

As you are aware, E&J Gallo replaced the Tier 0 engine associated with the grinder (C-447-22) with an electrical engine (C-447-230). The shutdown of the engine was in conformance with District Rule 4702.

Gallo would like to proceed with obtaining emissions reduction credits (ERCs) for the criteria pollutant reductions realized by complying beyond Rule 4702 requirements. Attachment I is a copy Executive Order U-R-001-0327-1 for a Tier 3 engine, had the engine of the diesel grinder been replaced.

Table 1 is the emissions factors associated with the Tier 3 650 HP Engine (converted from Caterpillar Executive Order U-R-001-0327-1)

Table 1- Tier 3 Engine Emissions Factors

Criteria Pollutant	g/bhp-hr
NOX	--
VOC	--
PM10	0.11
CO	1.79
NOX + VOC	2.46

Table 2 is a summary of the actual operating hours, per quarter, of the Tier 0 engine for the period 4Q07-3Q09, the previous 8 quarters prior to the engine replacement (4Q09).

Table 2-Tier 0 Grinder Engine- Actual Hours of Operation

	1Q	2Q	3Q	4Q
2007				153
2008	133	71	140	134
2009	106	151	147	
Total	239	222	287	287
Baseline Hours	119.5	111	143.5	143.5

Attachment II is a check for \$759 for the emissions reduction credits (ERCs) applications.

Attachment III is the application for the Emission Reduction Credit.

Calculated Emissions Reductions, Lbs (Based on historical actual hours of operations and Emission Factors Associated with Tier 3 650 HP engine)*

Criteria Pollutant	1Q	2Q	3Q	4Q
NOX	--	--	--	--
VOC	--	--	--	--
PM10	16.9	15.6	20.15	20.15
C0	273	253.5	331.5	331.5
NOX + VOC	377	351	455	455

*A 10% reduction of ERCs observed prior to banking and are included in the calculation

Thank you for your time in regard to this matter. If you have any questions or require additional information, please contact Mr. Rodney Burns at 559-458-2458.

Regards,




Phil Castro
Plant Manager-Fresno Winery

Encl.

ATTACHMENT I

COPY EXECUTIVE ORDER U-R-001-0327-1 FOR A TIER 3 ENGINE

 AIR RESOURCES BOARD	CATERPILLAR INC.	EXECUTIVE ORDER U-R-001-0327-1 New Off-Road Compression-Ignition Engines

Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the December 15, 1998 Settlement Agreement between the Air Resources Board and the manufacturer, and any modifications thereof to the Settlement Agreement;

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-02-003;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engine and emission control system produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)
2008	8CPXL18.1ESK	18.1	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Direct Diesel Injection, Turbocharger, Charge Air Cooler and Engine Control Module			Loader, Tractor and Industrial Equipment	

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for hydrocarbon (HC), oxides of nitrogen (NO_x), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NO_x), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			HC	NO _x	NMHC+NO _x	CO	PM	ACCEL	LUG	PEAK
225 < KW ≤ 560	Tier 3	STD	N/A	N/A	4.0	3.5	0.20	20	15	50
		CERT	--	--	3.3	2.4	0.15	5	3	10


BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

This Executive Order hereby cancels and replaces Executive Order U-R-001-327 dated December 20, 2007.

Executed at El Monte, California on this 16th day of May 2008.


 Annette Hebert, Chief
 Mobile Source Operations Division

Attachment C

Baseline Period Determination

Baseline Period Determination

Non-Seasonal Source (Engine)					
Calendar Quarter	Throughput (hours/qtr)	8-Qtr Block Differences vs NSO	12-Qtr Block Differences vs NSO	16-Qtr Block Differences vs NSO	20-Qtr Block Differences vs NSO
Q1 - 2002	276				
Q2 - 2002	193				
Q3 - 2002	319				
Q4 - 2002	162				
Q1 - 2003	306				
Q2 - 2003	181				
Q3 - 2003	133				
Q4 - 2003	79				
Q1 - 2004	110				
Q2 - 2004	163				
Q3 - 2004	155				
Q4 - 2004	139				
Q1 - 2005	146				
Q2 - 2005	237				
Q3 - 2005	175				
Q4 - 2005	131				
Q1 - 2006	193				
Q2 - 2006	98				
Q3 - 2006	137	2			
Q4 - 2006	165	1			
Q1 - 2007	129	1			
Q2 - 2007	142	13			
Q3 - 2007	134	18	7		
Q4 - 2007	153	15	6		
Q1 - 2008	133	23	7		
Q2 - 2008	71	26	21		
Q3 - 2008	140	26	24	14	
Q4 - 2008	134	30	23	14	
Q1 - 2009	106	33	31	17	
Q2 - 2009	151	31	26	22	
Q3 - 2009	147	30	25	24	16
NSO Average	159				

This value is the smallest "difference" compared to the Normal Source Operation (NSO) average. Therefore, the 8 consecutive quarters associated with it (Q1 2005 - Q4 2006) most closely represent NSO. As such, the baseline period is Q1 2005 - Q4 2006.

Attachment D

E & J Gallo Usage Records

Grinder Hours -- Summary 2002

January	112.3
February	100.7
March	63.3
April	59.3
May	41.8
June	91.9
July	80.3
August	179.5
September	59.1
October	43.9
November	23.4
December	94.3
Total Hours	949.8
Hours Remaining	50.2

Grinder Summary 2003

January	84.5
February	126.9
March	94.1
April	72.5
May	46.9
June	61.6
July	39.7
August	43.9
September	49.5
October	63
November	0
December	16
	698.6

Grinder Summary 2004

January	23
February	75.5
March	11
April	33.5
May	85.5
June	44
July	40
August	67
September	48
October	28
November	44
December	67
	566.5

Grinder Summary 2005

January	78
February	10
March	58
April	125
May	40
June	72
July	49
August	93
September	33
October	78
November	0
December	53
Total Use	689
Permitted	1000
Hours Ren	311

Grinder Summary 2006

January	42
February	104

Grinder Summary 2007

January	36
February	12

Attachment E
Draft ERC Certificates

San Joaquin Valley
Air Pollution Control District

Central Regional Office • 1990 E. Gettysburg Ave. • Fresno, CA 93726

Emission Reduction Credit Certificate

C-1071-1
DRAFT

ISSUED TO: E & J GALLO WINERY
ISSUED DATE: <DRAFT>
LOCATION OF REDUCTION: 5610 E OLIVE AVE
FRESNO, CA 93727

For VOC Reduction In The Amount Of:

Quarter 1	Quarter 2	Quarter 3	Quarter 4
23 lbs	22 lbs	21 lbs	20 lbs

Conditions Attached

Method Of Reduction

- Shutdown of Entire Stationary Source
 Shutdown of Emissions Units
 Other

650 HP CATERPILLAR MODEL 3412 V-12 DIESEL-FIRED LOW-USE IC ENGINE

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

Central Regional Office • 1990 E. Gettysburg Ave. • Fresno, CA 93726

Emission Reduction Credit Certificate

C-1071-2
DRAFT

ISSUED TO: E & J GALLO WINERY
ISSUED DATE: <DRAFT>
LOCATION OF REDUCTION: 5610 E OLIVE AVE
FRESNO, CA 93727

For NOx Reduction In The Amount Of:

Quarter 1	Quarter 2	Quarter 3	Quarter 4
612 lbs	605 lbs	563 lbs	535 lbs

Conditions Attached

Method Of Reduction

- Shutdown of Entire Stationary Source
 Shutdown of Emissions Units
 Other

650 HP CATERPILLAR MODEL 3412 V-12 DIESEL-FIRED LOW-USE IC ENGINE

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

Central Regional Office • 1990 E. Gettysburg Ave. • Fresno, CA 93726

Emission Reduction Credit Certificate

C-1071-3
DRAFT

ISSUED TO: E & J GALLO WINERY
ISSUED DATE: <DRAFT>
LOCATION OF REDUCTION: 5610 E OLIVE AVE
FRESNO, CA 93727

For CO Reduction In The Amount Of:

Quarter 1	Quarter 2	Quarter 3	Quarter 4
437 lbs	432 lbs	403 lbs	382 lbs

Conditions Attached

Method Of Reduction

- Shutdown of Entire Stationary Source
 Shutdown of Emissions Units
 Other

650 HP CATERPILLAR MODEL 3412 V-12 DIESEL-FIRED LOW-USE IC ENGINE

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

Seyed Sadredin, Executive Director / APCO

David Warner, Director of Permit Services

San Joaquin Valley
Air Pollution Control District

Central Regional Office • 1990 E. Gettysburg Ave. • Fresno, CA 93726

Emission Reduction Credit Certificate

C-1071-4
DRAFT

ISSUED TO: E & J GALLO WINERY
ISSUED DATE: <DRAFT>
LOCATION OF REDUCTION: 5610 E OLIVE AVE
FRESNO, CA 93727

For PM10 Reduction In The Amount Of:

Quarter 1	Quarter 2	Quarter 3	Quarter 4
32 lbs	32 lbs	31 lbs	29 lbs

Conditions Attached

Method Of Reduction

- Shutdown of Entire Stationary Source
 Shutdown of Emissions Units
 Other

650 HP CATERPILLAR MODEL 3412 V-12 DIESEL-FIRED LOW-USE IC ENGINE

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

Central Regional Office • 1990 E. Gettysburg Ave. • Fresno, CA 93726

Emission Reduction Credit Certificate

C-1071-5
DRAFT

ISSUED TO: E & J GALLO WINERY
ISSUED DATE: <DRAFT>
LOCATION OF REDUCTION: 5610 E OLIVE AVE
FRESNO, CA 93727

For SOx Reduction In The Amount Of:

Quarter 1	Quarter 2	Quarter 3	Quarter 4
1 lbs	2 lbs	1 lbs	1 lbs

Conditions Attached

Method Of Reduction

- Shutdown of Entire Stationary Source
 Shutdown of Emissions Units
 Other

650 HP CATERPILLAR MODEL 3412 V-12 DIESEL-FIRED LOW-USE IC ENGINE

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