San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

NOV 12 2013

Dan Martin
E & J Gallo Winery
18000 W River Rd
Livingston, CA 95334

Re: Notice of Preliminary Decision - Authority to Construct
Facility Number: N-1237
Project Number: N-1132991

Dear Mr. Martin:

Enclosed for your review and comment is the District's analysis of E & J Gallo Winery's application for an Authority to Construct for the installation of 20 wine storage tanks, at 18000 W River Rd, Livingston, CA.

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 period, the District intends to issue the Authority to Construct. 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. Jesse A. Garcia of Permit Services at (559) 230- 5900.

Sincerely,

David Warner
Director of Permit Services

DW:jag

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
4900 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

www.valleyair.org www.healthyairliving.com

San Joaquin Valley Air Pollution Control District
Authority to Construct Application Review
Installation of 20 Wine Storage Tanks

Facility Name:	E & J Gallo Winery	Date:	October 16, 2013
Mailing Address:	18000 W River Rd	Engineer:	Jesse A. Garcia
	Livingston, CA 95334	Lead Engineer:	Joven Refuerzo
Contact Person:	Dan Martin		
Telephone:	(209) 394-6211		
Fax:	(209) 394-5936		
Application #(s):	N-1237-697-0 through -716-0		
Project #:	N-1132991		
Deemed Complete:	September 16, 2013		

I. Proposal

E & J Gallo Winery has requested Authority to Construct (ATC) permits for the installation of 20 red and white wine storage tanks as follows:

- Four 35,000 gallon tanks, ATCs N-1237-697-0 through -700-0
- Eight 350,000 gallon tanks, ATCs N-1237-701-0 through -708-0
- Eight 629,000 gallon tanks, ATCs N-1237-709-0 through -716-0

E & J Gallo Winery received their Title V Permit. This modification can be classified as a Title V significant modification pursuant to Rule 2520, and can be processed with a Certificate of Conformity (COC). But the facility has not requested that this project be processed in that manner; therefore, E & J Gallo Winery will be required to submit a Title V significant modification application prior to operating under the provisions of the ATCs issued with this project.

II. Applicable Rules

Rule 2201	New and Modified Stationary Source Review Rule (4/21/11)
Rule 2410	Prevention of Significant Deterioration (6/16/11)
Rule 2520	Federally Mandated Operating Permits (6/21/01)
Rule 4001	New Source Performance Standards (4/14/99)
Rule 4002	National Emissions Standards for Hazardous Air Pollutants (5/20/04)
Rule 4102	Nuisance (12/17/92)
Rule 4694	Wine Fermentation and Storage Tanks (12/15/05)
CH&SC 41700	Health Risk Assessment
CH&SC 42301.6	School Notice

Public Resources Code 21000-21177: California Environmental Quality Act (CEQA)

California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000-15387: CEQA Guidelines

III. Project Location

The facility is located at 18000 W River Road in Livingston, CA. The equipment is not located within 1,000 feet of the outer boundary of a K-12 school. Therefore, the public notification requirement of California Health and Safety Code 42301.6 is not applicable to this project.

IV. Process Description

E & J Gallo Winery produces both red and white table wines, as well as other specialty wine products, from the fermentation of grapes. During the "crush season," typically from late August to late November, both red and white grapes are received by truck and delivered to a crusher-stemmer which serves to crush the grapes and remove the stems. In the case of red wines, the resultant juice (termed "must" and containing the grape skins, pulp and seeds) is pumped to red wine fermentation tanks for fermentation, a batch process. The red wine fermentation tanks are specifically designed to ferment the must in contact with the skins and to allow the separation of the skins and seeds from the wine after fermentation. In the case of white wines, the must is sent to screens and presses for separation of grape skins and seeds prior to fermentation. After separation of the skins and seeds, the white must is transferred to a fermentation tank. White wine fermentation can be carried out in a tank without design provisions for solids separation since the skins and seeds have already been separated.

After transfer of the must (for red or white wine) to the fermentation tank, the must is inoculated with yeast which initiates the fermentation reactions. During fermentation, the yeast metabolizes the sugar in the grape juice, converting it to ethanol and carbon dioxide (CO_2) while releasing heat. Temperature is typically controlled by refrigeration, and is maintained at 45–65 °F for white wine fermentation and 70–95 °F for red wine fermentation. The sugar content of the fermentation mass is measured in °Brix (weight %) and is typically 22–26° for unfermented grape juice, dropping to 4° or less at the end of fermentation. Finished ethanol concentration is approximately 10 to 14 percent by volume. Batch fermentation requires 3-5 days per batch for red wine and 1-2 weeks per batch for white wine. VOCs are emitted during the fermentation process along with the CO_2. The VOCs consist primarily of ethanol along with small quantities of other fermentation byproducts.

Following the completion of fermentation, white wine is transferred directly to storage tanks. Red wine is first directed to the presses for separation of solids and then routed to the storage tanks. Tanks can potentially operate in either: (1) a fermentation operation during which the tank is vented directly to the atmosphere to release the evolved CO_2 byproduct from the fermentation reaction; (2) a storage operation during which the tank is closed to minimize contact with air and refrigerated to preserve the wine; (3) or both fermentation and storage operations. The proposed tanks in this project will operate as storage tanks only. Post-fermentation operations such as cold stabilization, racking, and filtration are conducted in the tanks, resulting in a number of inter-tank transfers during the period between the end of fermentation and bottling or bulk shipment. Storage operations are conducted year-round. VOC emissions occur primarily as a result of the inter-tank transfers which are necessitated by the post fermentation operations.

V. Equipment Listing

Permit #	Equipment Description
N-1237-697-0	35,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 363) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT
N-1237-698-0	35,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 364) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT
N-1237-699-0	35,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 365) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT
N-1237-700-0	35,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 366) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT
N-1237-701-0	350,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 3217) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT
N-1237-702-0	350,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 3218) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT
N-1237-703-0	350,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 3219) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT
N-1237-704-0	350,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 3220) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT
N-1237-705-0	350,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 3221) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT
N-1237-706-0	350,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 3222) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT
N-1237-707-0	350,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 3223) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT
N-1237-708-0	350,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 3224) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT
N-1237-709-0	629,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 6201) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT
N-1237-710-0	629,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 6202) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT
N-1237-711-0	629,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 6203) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT
N-1237-712-0	629,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 6204) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT

N-1237-713-0	629,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 6205) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT
N-1237-714-0	629,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 6206) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT
N-1237-715-0	629,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 6207) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT
N-1237-716-0	629,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 6208) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT

VI. Emission Control Technology Evaluation

VOCs (ethanol) are emitted from wine storage tanks as a result of both working losses (which occur when the liquid level in the tank changes) and breathing losses (expansion and contraction effects due to temperature variations). The proposed pressure/vacuum valve limits these emissions by requiring the maximum amount of variation in tank pressure before allowing the tank to vent to the atmosphere or allowing air admission to the tank.

VII. General Calculations

A. Assumptions

- The proposed tanks will only be used for red and white wine storage
- Typically, for enclosed tanks with refrigeration and/or insulation (or equivalent) and P/V valves, breathing losses from storage of wine are assumed to be negligible.
- Maximum storage tank liquid storage temperature = 81.0°F (per FYI-295)
- Annual average storage tank liquid storage temperature = 63.3 °F for all tanks (per FYI-295)
- Storage tank daily maximum ethanol content of stored wine is 23.9% (per applicant)
- Storage tank annual average ethanol content of stored wine is 15% (per applicant)
- Daily throughput = 1 tank turnover (per applicant)
- Annual throughput is proposed by the applicant as follows:

Permit	Post Project Throughput (gal/year)
N-1237-697 through -700	700,000
N-1237-701 through -708	3,500,000
N-1237-709 through -716	4,450,000

B. Emission Factors

EPA's Tanks 4.0 program will be used to calculate the emissions from the new storage tanks.

C. Calculations

1. Pre-Project Potential to Emit (PE1)

Since these are new emissions units, PE1 = 0 for all pollutants, for each unit.

2. Post Project Potential to Emit (PE2)

Since the proposed wine tanks will be used for storage only, potential emissions are expected to be significantly less than similarly sized fermentation tanks. Emissions from storage tanks will be calculated using EPA's Tanks 4.0.

Two Tanks 4.0 runs have been performed one using a daily throughput as listed in the table below to calculate the daily post-project potential to emit by dividing the month of July emissions by the number of days in the month and one using the annual throughput as listed in the table below to calculate the annual post-project potential to emit. See Appendix A for the Tanks 4.0 runs for each tank.

Post-Project Potential to Emit (PE2)					
Permit Unit	Max Daily Throughput (gal/day, each)	Max Annual Throughput (gal/yr, each)	Daily PE1 (lb/day, each)	Annual PE1 (lb/yr, each)	Total Annual PE1 (lb/yr)
N-1237-697 through -700	35,000	700,000	3.5	101	404
N-1237-701 through -708	350,000	3,500,000	35.0	506	4,048
N-1237-709 through -716	629,000	4,450,000	63.0	643	5,144
				Total for all 20 Tanks	9,596

3. Pre-Project Stationary Source Potential to Emit (SSPE1)

Pursuant to Section 4.9 of District Rule 2201, the Pre-Project Stationary Source Potential to Emit (SSPE1) is the Potential to Emit (PE) from all units with valid Authorities to Construct (ATC) or Permits to Operate (PTO) at the Stationary Source and the quantity of emission reduction credits (ERC) which have been banked since September 19, 1991 for Actual Emissions Reductions that have occurred at the source, and which have not been used on-site.

This project only concerns VOC emissions. This facility acknowledges that its VOC emissions are already above the Offset and Major Source Thresholds for VOC emissions; therefore, SSPE1 calculations are not necessary.

4. Post Project Stationary Source Potential to Emit (SSPE2)

Pursuant to Section 4.10 of District Rule 2201, the Post Project Stationary Source Potential to Emit (SSPE2) is the Potential to Emit (PE) from all units with valid Authorities to Construct (ATC) or Permits to Operate (PTO) at the Stationary Source and the quantity

of emission reduction credits (ERC) which have been banked since September 19, 1991 for Actual Emissions Reductions that have occurred at the source, and which have not been used on-site.

This project only concerns VOC emissions. This facility acknowledges that its VOC emissions are already above the Offset and Major Source Thresholds for VOC emissions; therefore, SSPE2 calculations are not necessary.

5. Major Source Determination

Rule 2201 Major Source Determination:

Pursuant to District Rule 2201, a Major Source is a stationary source with a SSPE2 equal to or exceeding one or more of the following threshold values. For the purposes of determining major source status the following shall not be included:

- any ERCs associated with the stationary source
- Emissions from non-road IC engines (i.e. IC engines at a particular site at the facility for less than 12 months)
- Fugitive emissions, except for the specific source categories specified in 40 CFR 51.165

This source is an existing Major Source for VOC emissions and will remain a Major Source for VOC. No change in other pollutants are proposed or expected as a result of this project.

Rule 2410 Major Source Determination:

The following table summarizes the potential VOC emissions from previous permitting actions for this stationary source prior to the proposed project.

Project Number	Proposed Permitting Actions	PE (lb-VOC/year)
N-1072605	Applying for In-house PTOs for existing wine storage and fermentation tanks	470,985
N-1110129	Install 2 wine fermentation tanks	8,432
N-1110722	Convert 7 existing grape juice tanks to wine fermentation tanks	15,680
N-1113344	Install 104 wine storage and fermentation tanks	94,430
N-1113395	Install 3 wine storage and fermentation tanks	10,173
N-1113047	Install 2 distilled spirit tanks	188
N-1113864	Install an ethanol evaporator system	7,719
Total		**607,607**

As indicated above, the SSPE VOC emission before the proposal project is calculated to 607,607 pounds per year, equivalent to 303.8 tons per year.

The facility evaluated under this project is not listed as one of the categories specified in 40 CFR 52.21(b)(1)(i). Therefore, the following PSD Major Source threshold for VOC is applicable.

PSD Major Source Determination (tons/year)	
	VOC
Facility PE before Project Increase	303.8
PSD Major Source Thresholds	250
PSD Major Source?	**Yes**

As shown above, the facility is an existing Major Source for PSD for VOC. Therefore, the facility is an existing Major Source for PSD.

6. Baseline Emissions (BE)

The BE calculation (in lbs/year) is performed pollutant-by-pollutant for each unit within the project, to calculate the QNEC and if applicable, to determine the amount of offsets required.

Pursuant to Section 3.7 of District Rule 2201, BE = Pre-project Potential to Emit for:

- Any unit located at a non-Major Source,
- Any Highly-Utilized Emissions Unit, located at a Major Source,
- Any Fully-Offset Emissions Unit, located at a Major Source, or
- Any Clean Emissions Unit, located at a Major Source.

otherwise,

BE = Historic Actual Emissions (HAE), calculated pursuant to Section 3.22 of District Rule 2201.

Since these are new emission units, BE = PE1 = 0 for all pollutants.

7. SB 288 Major Modification

SB 288 Major Modification is defined in 40 CFR Part 51.165 as "any physical change in or change in the method of operation of a major stationary source that would result in a significant net emissions increase of any pollutant subject to regulation under the Act."

Since this facility is a major source for VOC, the project's PE2 is compared to the SB 288 Major Modification Thresholds in the following table in order to determine if the SB 288 Major Modification calculation is required.

SB 288 Major Modification Thresholds (Existing Major Source)			
Pollutant	Project PE (lb/year)	Threshold (lb/year)	SB 288 Major Modification Calculation Required?
VOC	9,596	50,000	No

Since none of the SB 288 Major Modification Thresholds are surpassed with this project, this project does not constitute an SB 288 Major Modification.

8. Federal Major Modification

District Rule 2201 states that Federal Major Modifications are the same as "Major Modification" as defined in 40 CFR 51.165 and part D of Title I of the CAA. SB 288 Major Modifications are not federal major modifications if they meet the criteria of the "Less-Than-Significant Emissions Increase" exclusion.

A Less-Than-Significant Emissions Increase exclusion is for an emissions increase for the project, or a Net Emissions Increase for the project (as defined in 40 CFR 51.165 (a)(2)(ii)(B) through (D), and (F)), that is not significant for a given regulated NSR pollutant, and therefore is not a federal major modification for that pollutant.

- To determine the post-project projected actual emissions from existing units, the provisions of 40 CFR 51.165 (a)(1)(xxviii) shall be used.
- To determine the pre-project baseline actual emissions, the provisions of 40 CFR 51.165 (a)(1)(xxxv)(A) through (D) shall be used.
- If the project is determined not to be a federal major modification pursuant to the provisions of 40 CFR 51.165 (a)(2)(ii)(B), but there is a reasonable possibility that the project may result in a significant emissions increase, the owner or operator shall comply with all of the provisions of 40 CFR 51.165 (a)(6) and (a)(7).
- Emissions increases calculated pursuant to this section are significant if they exceed the significance thresholds specified in the table below.

Significant Threshold (lb/year)	
Pollutant	Threshold (lb/year)
VOC	0

The Net Emissions Increases (NEI) for purposes of determination of a "Less-Than-Significant Emissions Increase" exclusion will be calculated below to determine if this project qualifies for such an exclusion.

Net Emission Increase for New Units (NEI_N)

Per 40 CFR 51.165 (a)(2)(ii)(D) for new emissions units in this project,

$NEI_N = PE2_N - BAE$

Since these are new units, BAE for these units is zero and,

$NEI_N = PE2_N$

where $PE2_N$ is the Post Project Potential to Emit for the emissions units.

$NEI_N = PE2_N = 9{,}596$ lb-VOC/year

The NEI for this project is thus calculated as follows:

$NEI = NEI_N$
NEI = 9,596 lb-VOC/year

The NEI for this project will be greater than the federal Major Modification threshold of 0 lb-VOC/year. Therefore, this project does not qualify for a "Less-Than-Significant Emissions Increase" exclusion and is thus determined to be a Federal Major Modification for VOC.

9. Rule 2410 – Prevention of Significant Deterioration (PSD) Applicability Determination

Rule 2410 applies to pollutants for which the District is in attainment or for unclasssified, pollutants. The pollutants addressed in the PSD applicability determination are listed as follows:

- NO2 (as a primary pollutant)
- SO2 (as a primary pollutant)
- CO
- PM
- PM10
- Greenhouse gases (GHG): CO2, N2O, CH4, HFCs, PFCs, and SF6

The first step of this PSD evaluation consists of determining whether the facility is an existing PSD Major Source or not (See Section VII.C.5 of this document).

In the case the facility is an existing PSD Major Source, the second step of the PSD evaluation is to determine if the project results in a PSD significant increase.

In the case the facility is NOT an existing PSD Major Source but is an existing source, the second step of the PSD evaluation is to determine if the project, by itself, would be a PSD major source.

In the case the facility is new source, the second step of the PSD evaluation is to determine if this new facility will become a new PSD major Source as a result of the project and if so, to determine which pollutant will result in a PSD significant increase.

I. Project Location Relative to Class 1 Area

As demonstrated in the "PSD Major Source Determination" Section above, the facility was determined to be a existing major source for PSD. Because the project is not located within 10 km of a Class 1 area – modeling of the emission increase is not required to determine if the project is subject to the requirements of Rule 2410.

II. Significance of Project Emission Increase Determination

a. Potential to Emit of attainment/unclassified pollutant for New or Modified Emission Units vs PSD Significant Emission Increase Thresholds

As a screening tool, the potential to emit from all new and modified units is compared to the PSD significant emission increase thresholds, and if total potential to emit from all new and modified units is below this threshold, no further analysis will be needed.

PSD Significant Emission Increase Determination: Potential to Emit (tons/year)						
	NO2	SO2	CO	PM	PM10	CO2e
Total PE from New and Modified Units	0	0	0	0	0	0
PSD Significant Emission Increase Thresholds	40	40	100	25	15	75,000
PSD Significant Emission Increase?	N	N	N	N	N	N

As demonstrated above, because the project has a total potential to emit from all new and modified emission units below the PSD significant emission increase thresholds, this project is not subject to the requirements of Rule 2410 due to a significant emission increase and no further discussion is required.

10. Quarterly Net Emissions Change (QNEC)

The QNEC is calculated solely to establish emissions that are used to complete the District's PAS emissions profile screen. Detailed QNEC calculations are included in Appendix B.

VIII. Compliance

Rule 2201 New and Modified Stationary Source Review Rule

A. Best Available Control Technology (BACT)

1. BACT Applicability

BACT requirements are triggered on a pollutant-by-pollutant basis and on an emissions unit-by-emissions unit basis for the following*:

a. Any new emissions unit with a potential to emit exceeding two pounds per day,
b. The relocation from one Stationary Source to another of an existing emissions unit with a potential to emit exceeding two pounds per day,
c. Modifications to an existing emissions unit with a valid Permit to Operate resulting in an AIPE exceeding two pounds per day, and/or
d. Any new or modified emissions unit, in a stationary source project, which results in an SB 288 Major Modification or a Federal Major Modification, as defined by the rule.

*Except for CO emissions from a new or modified emissions unit at a Stationary Source with an SSPE2 of less than 200,000 pounds per year of CO.

a. New emissions units – PE > 2 lb/day

The applicant is proposing to install 20 new wine storage tanks with a PE greater than 2 lb/day for VOC. Thus BACT is triggered for VOC for these emissions units.

b. Relocation of emissions units – PE > 2 lb/day

There are no emissions units being relocated from one stationary source to another, hence BACT is not triggered under this category.

c. Modification of emissions units – AIPE > 2 lb/day

As discussed in Section I above, there are no modified emissions units associated with this project; therefore BACT is not triggered.

d. SB 288/Federal Major Modification

As discussed in Section VII.C.8 above, this project constitutes a Federal Major Modification for VOC. Therefore BACT is triggered for VOC.

2. BACT Guideline

BACT Guideline 5.4.13, applies to the wine storage tanks. [Wine Storage Tanks] (Appendix C)

3. Top-Down BACT Analysis

Per Permit Services Policies and Procedures for BACT, a Top-Down BACT analysis shall be performed as a part of the application review for each application subject to the BACT requirements pursuant to the District's NSR Rule.

Pursuant to the attached Top-Down BACT Analyses (Appendix C), since the technologically feasible options are not cost effective and BACT has been satisfied with the following:

VOC: Insulated tank, pressure/vacuum valve set within 10% of the maximum allowable working pressure of the tank, "gas tight" tank operation and achieve and maintain a continuous storage temperature not exceeding 75 °F within 60 days of completion of fermentation.

B. Offsets

1. Offset Applicability

Pursuant to Section 4.5.3, offset requirements shall be triggered on a pollutant by pollutant basis and shall be required if the Post Project Stationary Source Potential to Emit (SSPE2) equals to or exceeds the offset threshold levels in Table 4-1 of Rule 2201.

Facility emissions are already above the Offset and Major Source Thresholds for VOC emissions; therefore, offsets are triggered.

2. Quantity of Offsets Required

As discussed above, the facility is an existing Major Source for VOC and the SSPE2 is greater than the offset thresholds; therefore offset calculations will be required for this project.

Per Sections 4.7.1 and 4.7.3, the quantity of offsets in pounds per year for VOC is calculated as follows for sources with an SSPE1 greater than the offset threshold levels before implementing the project being evaluated.

Offsets Required (lb/year) = (Σ[PE2 – BE] + ICCE) x DOR, for all new or modified emissions units in the project,

Where,
PE2 = Post Project Potential to Emit, (lb/year)
BE = Baseline Emissions, (lb/year)
ICCE = Increase in Cargo Carrier Emissions, (lb/year)
DOR = Distance Offset Ratio, determined pursuant to Section 4.8

BE = Pre-project Potential to Emit for:

- Any unit located at a non-Major Source,
- Any Highly-Utilized Emissions Unit, located at a Major Source,
- Any Fully-Offset Emissions Unit, located at a Major Source, or
- Any Clean Emissions Unit, Located at a Major Source.

otherwise,

BE = Historic Actual Emissions (HAE)

There are no increases in cargo carrier emissions due to this project. Therefore,

Offsets Required (lb/year) = Σ[PE2 – BE] x DOR

Offsets Required for Storage				
Tank Model (ATCs)	PE2, each (lb-VOC/yr)	Annual BE, each (lb-VOC/yr)	Offsets Required, each (lb-VOC/yr)	Total Offsets Required (lb-VOC/yr)
N-1237-697 through -700	101	0	101	404
N-1237-701 through -708	506	0	506	4,048
N-1237-709 through -716	643	0	643	5,144
Total (N-1237-697 through -716)				9,596

Summary of Offsets Required for Each Tank					
ATCs	Offsets, each (lb-VOC/yr)	Quarterly Offsets Required, each			
		1st Qtr (lb/qtr)	2nd Qtr (lb/qtr)	3rd Qtr (lb/qtr)	4th Qtr (lb/qtr)
N-1237-697 through -700	101	25	25	25	26
N-1237-701 through -708	506	126	126	126	127
N-1237-709 through -716	643	160	161	161	161

The applicant has stated that the facility plans to use ERC certificates S-4050-1, S-3805-1, S-3807-1, and/or S-4025-1, or their successors, to offset the increases in VOC emissions associated with this project. The project is a Federal Major Modification; therefore, the offset ratio for VOC is 1.5:1. The amount of VOC ERCs that need to be withdrawn are 9,596 lb-VOC/year x 1.5 = 14,394 lb-VOC/year.

Calculating the appropriate quarterly emissions to be offset is as follows:

1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
3,598	3,598	3,599	3,599

The above certificates have available quarterly VOC credits as follows:

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
ERC #S-3805-1	18,000	18,000	18,000	18,000
ERC #S-3807-1	11,431	11,424	11,417	11,417
ERC #S-4025-1	44,473	44,472	44,465	44,397
ERC #S-4050-1	60,000	60,000	60,000	60,000

As seen above, the facility has sufficient credits to fully offset the quarterly VOC emissions increases associated with this project.

Proposed Rule 2201 (offset) Conditions:

- ERC Certificate Numbers S-3805-1, S-3807-1, S-4025-1 and/or S-4050-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]

Permit units N-1237-697 through -700

- Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 25 lb, 2nd quarter - 25 lb, 3rd quarter - 25 lb, and fourth quarter - 26 lb. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201]

Permit units N-1237-701 through -708

- Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 126 lb, 2nd quarter - 126 lb, 3rd quarter - 126 lb, and fourth quarter - 127 lb. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201]

Permit units N-1237-709 through -716

- Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 160 lb, 2nd quarter - 161 lb, 3rd quarter - 161 lb, and fourth quarter - 161 lb. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201]

C. Public Notification

1. Applicability

Public noticing is required for:

a. New Major Sources, Federal Major Modifications, and SB288 Major Modifications,
b. Any new emissions unit with a Potential to Emit greater than 100 pounds during any one day for any one pollutant,
c. Any project which results in the offset thresholds being surpassed, and/or
d. Any project with an SSIPE of greater than 20,000 lb/year for any pollutant.

a. New Major Sources, Federal Major Modifications, and SB288 Major Modifications

New Major Sources are new facilities, which are also Major Sources. Since this is not a new facility, public noticing is not required for this project for New Major Source purposes.

As demonstrated in VII.C.8, this project is a Federal Major Modification for VOC; therefore, public noticing for Federal Major Modification purposes is required.

b. PE > 100 lb/day

Applications which include a new emissions unit with a PE greater than 100 pounds during any one day for any pollutant will trigger public noticing requirements. There are no new emissions with a PE > 100 lb/day. Therefore public noticing is not required for this project for PE > 100 lb/day.

c. Offset Threshold

The following table compares the SSPE1 with the SSPE2 in order to determine if any offset thresholds have been surpassed with this project.

Offset Threshold				
Pollutant	SSPE1 (lb/year)	SSPE2 (lb/year)	Offset Threshold	Public Notice Required?
VOC	> 20,000	> 20,000	20,000 lb/year	No

As detailed above, there were no thresholds surpassed with this project; therefore public noticing is not required for offset purposes.

d. SSIPE > 20,000 lb/year

Public notification is required for any permitting action that results in a Stationary Source Increase in Permitted Emissions (SSIPE) of more than 20,000 lb/year of any affected pollutant. According to District policy, the SSIPE is calculated as the Post Project Stationary Source Potential to Emit (SSPE2) minus the Pre-Project Stationary Source Potential to Emit (SSPE1), i.e. SSIPE = SSPE2 – SSPE1. The values for SSPE2 and SSPE1 are calculated according to Rule 2201, Sections 4.9 and 4.10, respectively. The SSIPE is compared to the SSIPE Public Notice thresholds in the following table:

Stationary Source Increase in Permitted Emissions [SSIPE] – Public Notice					
Pollutant	ΣProject PE2 (lb/year)	ΣProject PE1 (lb/year)	SSIPE (lb/year)	SSIPE Public Notice Threshold	Public Notice Required?
VOC	9,596	0	9,596	20,000 lb/year	No

As demonstrated above, the SSIPE is not greater than 20,000 lb/year for VOC; therefore public noticing for SSIPE purposes is not required.

2. Public Notice Action

As discussed above, public noticing is required for this project for Federal Major Modification for VOC. Therefore, public notice documents will be submitted to the California Air Resources Board (CARB), US Environmental Protection Agency (US EPA), and a public notice will be published in a local newspaper of general circulation prior to the issuance of the ATC permits for this equipment.

D. Daily Emission Limits (DELs)

Daily Emissions Limitations (DELs) and other enforceable conditions are required to restrict a unit's maximum daily emissions, to a level at or below the emissions associated with the maximum design capacity. The DEL must be contained in the latest ATC and contained in or enforced by the latest PTO and enforceable, in a practicable manner, on a daily basis. DELs are also required to enforce the applicability of BACT.

Proposed Rule 2201 (DEL) Conditions:

For the proposed wine storage tank emissions units in this project, the DEL is enforced with the following conditions:

All Permits

- The weighted annual average ethanol content of wine stored in this tank, calculated on a twelve month rolling basis, shall not exceed 15 percent by volume. [District Rule 2201]
- The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rules 2201 and 4694, 5.2.2]

The following conditions are typical conditions for each tank in each tank group:

Permit units N-1237-697 through -700

- The maximum wine storage throughput in this tank shall not exceed 35,000 gallons per day. [District Rule 2201]

Permit units N-1237-701 through -708

- The maximum wine storage throughput in this tank shall not exceed 350,000 gallons per day. [District Rule 2201]

Permit units N-1237-709 through -716

- The maximum wine storage throughput in this tank shall not exceed 629,000 gallons per day. [District Rule 2201]

E. Compliance Assurance

1. Source Testing

Pursuant to District Policy APR 1705, source testing is not required to demonstrate compliance with Rule 2201.

2. Monitoring

No monitoring is required to demonstrate compliance with Rule 2201.

3. Recordkeeping

Recordkeeping is required to demonstrate compliance with the offsets, public notification and daily emission limit requirements of Rule 2201. Recordkeeping is also required for winery tanks pursuant to District Rule 4694, *Wine Fermentation and Storage Tanks*. For the proposed wine storage tanks, the following conditions will be placed on the permits:

- The operator shall record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694]
- Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201]
- 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, 2201 and 4694]
- Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201]

4. Reporting

No reporting is required to demonstrate compliance with Rule 2201.

F. Ambient Air Quality Analysis

An AAQA shall be conducted for the purpose of determining whether a new or modified Stationary Source will cause or make worse a violation of an air quality standard. However, since this project involves only VOC and no ambient air quality standard exists for VOC, an AAQA is not required for this project.

G. Compliance Certification

Rule 2201 requires the owner of a new Major Source or a source undergoing a Title I Modification to demonstrate to the satisfaction of the District that all other Major Sources owned by such person and operating in California are in compliance or are on a schedule for compliance with all applicable emission limitations and standards. As discussed in Section VIII above, this facility is a Federal Major Modification and this project does constitute a Title I modification, therefore this requirement is applicable. The facility's compliance certification is included in Appendix D.

H. Alternative Siting Analysis

Alternative siting analysis is required for any project, which constitutes a New Major Source or a Federal Major Modification.

In addition to winery tanks, the operation of a winery requires a large number support equipment, services and structures such as raw material receiving stations, crushers, piping, filtering and refrigeration units, warehouses, laboratories, bottling and shipping facilities, and administration buildings.

Since the current project involves only a minimal increase in the winery's total tank volume and no change to any other facets of the operation, the existing site will result in the least possible impact from the project. Alternative sites would involve the relocation and/or construction of various support structures and facilities on a much greater scale, and would therefore result in a much greater impact.

Rule 2410 Prevention of Significant Deterioration

The prevention of significant deterioration (PSD) program is a construction permitting program for new major stationary sources and major modifications to existing major stationary sources located in areas classified as attainment or in areas that are unclassifiable for any criteria air pollutant.

As demonstrated above, this project is not subject to the requirements of Rule 2410 due to a significant emission increase and no further discussion is required.

Rule 2520 Federally Mandated Operating Permits

This facility is subject to this Rule, and has received their Title V Operating Permit. Section 3.29 defines a significant permit modification as a "permit amendment that does not qualify as a minor permit modification or administrative amendment."

Section 3.20.5 states that a minor permit modification is a permit modification that does not meet the definition of modification as given in Section 111 or Section 112 of the Federal Clean Air Act. Since this project is a Title I modification (i.e. Federal Major Modification), the proposed project is considered to be a modification under the Federal Clean Air Act. As a

result, the proposed project constitutes a Significant Modification to the Title V Permit pursuant to Section 3.29.

As discussed above, the facility has not applied for a Certificate of Conformity (COC); therefore, the facility must apply to modify their Title V permit with a significant modification, prior to operating with the proposed modifications. Continued compliance with this rule is expected. The facility shall not implement the changes requested until the final permit is issued.

Rule 4001 New Source Performance Standards (NSPS)

This rule incorporates NSPS from Part 60, Chapter 1, Title 40, Code of Federal Regulations (CFR); and applies to all new sources of air pollution and modifications of existing sources of air pollution listed in 40 CFR Part 60. However, no subparts of 40 CFR Part 60 apply to wine storage tank operations.

Rule 4002 National Emission Standards for Hazardous Air Pollutants (NESHAPs)

This rule incorporates NESHAPs from Part 61, Chapter I, Subchapter C, Title 40, CFR and the NESHAPs from Part 63, Chapter I, Subchapter C, Title 40, CFR; and applies to all sources of hazardous air pollution listed in 40 CFR Part 61 or 40 CFR Part 63. However, no subparts of 40 CFR Part 61 or 40 CFR Part 63 apply to wine storage tank operations.

Rule 4102 Nuisance

Rule 4102 states that no air contaminant shall be released into the atmosphere which causes a public nuisance. Public nuisance conditions are not expected as a result of the proposed operations provided the equipment is well maintained. Therefore, the following condition will be listed on each permit to ensure compliance:

- {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

California Health & Safety Code 41700 (Health Risk Assessment)

District Policy APR 1905 – Risk Management Policy for Permitting New and Modified Sources specifies that for an increase in emissions associated with a proposed new source or modification, the District perform an analysis to determine the possible impact to the nearest resident or worksite.

Ethanol is not a HAP as defined by Section 44321 of the California Health and Safety Code. Therefore, there are no increases in HAP emissions associated with any emission units in this project, therefore a health risk assessment is not necessary and no further risk analysis is required.

District Rule 4694 Wine Fermentation and Storage Tanks

The purpose of this rule is to reduce emissions of volatile organic compounds (VOC) from the fermentation and bulk storage of wine, or achieve equivalent reductions from alternative emission sources. This rule is applicable to all facilities with fermentation emissions in excess of 10 tons-VOC/year. The storage tank provisions of this rule apply to all tanks with capacity in excess of 5,000 gallons.

Section 5.1 requires the winery operator achieve Required Annual Emissions Reductions (RAER) equal to at least 35% of the winery's Baseline Fermentation Emissions (BFE). Since the proposed tanks will be used for storage only, this section is not applicable; therefore, no further discussion is required.

Section 5.2 places specific restrictions on wine storage tanks with 5,000 gallons or more in capacity when such tanks are not constructed of wood or concrete. Section 5.2.1 requires these tanks to be equipped and operated with a pressure-vacuum relief valve meeting all of the following requirements:

- The pressure-vacuum relief valve shall operate within 10% of the maximum allowable working pressure of the tank,
- The pressure-vacuum relief valve shall operate in accordance with the manufacturer's instructions, and
- The pressure-vacuum relief valve shall be permanently labeled with the operating pressure settings.
- The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21.

The following conditions will be placed on the permits for stainless steel tanks ≥ 5,000 gallons in capacity and used for storage to ensure compliance with the requirements of Section 5.2.1:

- This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694, 5.2.1]

- The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694, 5.2.1]

Section 5.2.2 requires that the temperature of the stored wine be maintained at or below 75° F. The following condition will be placed on the permits for stainless steel tanks ≥ 5,000 gallons in capacity and used for storage to ensure compliance with the requirements of Section 5.2.2:

- The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rule 4694, 5.2.2]

Every three years, Section 6.1 and 6.2 require facilities with fermentation operations to submit a Three-Year Compliance Plan and a Three-Year Compliance Plan Verification respectively. The proposed tanks in this project are for wine storage only, and since these sections are not applicable to wine storage operations, no further discussion is required.

Section 6.4.1 requires that records be kept for each fermentation batch. These tanks are not fermenters; therefore this section does not apply.

Section 6.4.2 requires that weekly records be kept of wine volume and temperature in each storage tank. The following conditions will be placed on the permit for each storage tank to ensure compliance with the requirements of Section 6.4.2:

- The operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694, 6.4.2]

Section 6.4.3 requires that all monitoring be performed for any CERs as identified in the facility's Three-Year Compliance Plan and that the records of all monitoring be maintained. Since this requirement is for operators mitigation fermentation emission and the proposed tanks are only for wine storage operations, this section is not applicable to wine tanks in this project. Therefore, no further discussion is required.

Section 6.4 requires that records required by this rule be maintained, retained on-site for a minimum of five years, and made available to the APCO upon request. The following conditions will be placed on all permits to ensure compliance:

- 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, 2201 and 4694]

California Environmental Quality ACT (CEQA)

The California Environmental Quality Act (CEQA) requires each public agency to adopt objectives, criteria, and specific procedures consistent with CEQA Statutes and the CEQA Guidelines for administering its responsibilities under CEQA, including the orderly evaluation of projects and preparation of environmental documents. The San Joaquin Valley Unified Air Pollution Control District (District) adopted its *Environmental Review Guidelines* (ERG) in 2001. The basic purposes of CEQA are to:

- Inform governmental decision-makers and the public about the potential, significant environmental effects of proposed activities.

- Identify the ways that environmental damage can be avoided or significantly reduced.
- Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible.
- Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

The County of Merced (County) is the public agency having principal responsibility for approving the project. As such, the County served as the Lead Agency (CCR §15367). In approving the project, the Lead Agency prepared and adopted a Mitigated Negative Declaration. The Lead agency filed a Notice of Determination, stating that the environmental document was adopted pursuant to the provisions of CEQA and concluding that the project would not have a significant effect on the environment.

The District is a Responsible Agency for the project because of its discretionary approval power over the project via its Permits Rule (Rule 2010) and New Source Review Rule (Rule 2201), (CCR §15381). As a Responsible Agency the District complies with CEQA by considering the environmental document prepared by the Lead Agency, and by reaching its own conclusion on whether and how to approve the project (CCR §15096).

The District has considered the Lead Agency's environmental document. Furthermore, the District has conducted an engineering evaluation of the project, this document, which demonstrates that Stationary Source emissions from the project would be below the District's thresholds of significance for criteria pollutants. Thus, the District finds that through a combination of project design elements, compliance with applicable District rules and regulations, and compliance with District air permit conditions, project specific stationary source emissions will have a less than significant impact on air quality. The District does not have authority over any of the other project impacts and has, therefore, determined that no additional findings are required (CEQA Guidelines §15096(h)).

IX. Recommendation

Compliance with all applicable rules and regulations is expected. Pending a successful NSR Public Noticing period, issue Authority to Construct permits N-1237-697-0 through -716-0 subject to the permit conditions on the attached draft Authority to Construct permits in Appendix E.

X. Billing Information

Annual Permit Fees			
Permit Number	Fee Schedule	Fee Description	Annual Fee
N-1237-697-0 through -700-0	3020-05-C	35,000 gallons	$135.00
N-1237-701-0 through -708-0	3020-05-E	350,000 gallons	$246.00
N-1237-709-0 through -716-0	3020-05-F	629,000 gallons	$301.00

XI. Appendices

A: Tanks 4.0 Calculations and Summary
B: Quarterly Net Emissions Change
C: BACT Guideline 5.4.13 and Analysis
D: Compliance Certification
E: Draft ATCs

Appendix A

Tanks 4.0 Calculations and Summary

		8 Livingston Tanks 629K			Output from Tank 4.0 total emissions no speciation	
Tank ID	% by Volume Alcohol	Average Ya	AMW Average	Total Pound of Emissions	Alcohol Emissions in pounds	Annual Gallons Through Put
6201	15.0%	0.3252	27.13	1166.25	643.44	4,450,000
6202	15.0%	0.3252	27.13	1166.25	643.44	4,450,000
6203	15.0%	0.3252	27.13	1166.25	643.44	4,450,000
6204	15.0%	0.3252	27.13	1166.25	643.44	4,450,000
6205	15.0%	0.3252	27.13	1166.25	643.44	4,450,000
6206	15.0%	0.3252	27.13	1166.25	643.44	4,450,000
6207	15.0%	0.3252	27.13	1166.25	643.44	4,450,000
6208	15.0%	0.3252	27.13	1166.25	643.44	4,450,000

Total Pounds 5,147
Total Tons 2.574

		8 Livingston Tanks 629K		Output from Tank 4.0 total emissions no speciation		
Tank ID	% by Volume Alcohol	Average Ya	AMW Average	Total Pound of Emissions	Alcohol Emissions in pounds (Max Daily)	Daily Gallons Through Put
6201	23.9%	0.4404	30.35	2923.17	62.96	629,000
6202	23.9%	0.4404	30.35	2923.17	62.96	629,000
6203	23.9%	0.4404	30.35	2923.17	62.96	629,000
6204	23.9%	0.4404	30.35	2923.17	62.96	629,000
6205	23.9%	0.4404	30.35	2923.17	62.96	629,000
6206	23.9%	0.4404	30.35	2923.17	62.96	629,000
6207	23.9%	0.4404	30.35	2923.17	62.96	629,000
6208	23.9%	0.4404	30.35	2923.17	62.96	629,000

		8 Livingston Tanks 350K			Output from Tank 4.0 total emissions no speciation	
Tank ID	% by Volume Alcohol	Average Ya	AMW Average	Total Pound of Emissions	Alcohol Emissions in pounds	Annual Gallons Through Put
3217	15.0%	0.3252	27.13	917.27	506.07	3,500,000
3218	15.0%	0.3252	27.13	917.27	506.07	3,500,000
3219	15.0%	0.3252	27.13	917.27	506.07	3,500,000
3220	15.0%	0.3252	27.13	917.27	506.07	3,500,000
3221	15.0%	0.3252	27.13	917.27	506.07	3,500,000
3222	15.0%	0.3252	27.13	917.27	506.07	3,500,000
3223	15.0%	0.3252	27.13	917.27	506.07	3,500,000
3224	15.0%	0.3252	27.13	917.27	506.07	3,500,000

Total Pounds 4,049
Total Tons 2.024

		8 Livingston Tanks 350K		Output from Tank 4.0 total emissions no speciation		
Tank ID	% by Volume Alcohol	Average Ya	AMW Average	Total Pound of Emissions	Alcohol Emissions in pounds (Max Daily)	Daily Gallons Through Put
3217	23.9%	0.4404	30.35	1626.47	35.03	350,000
3218	23.9%	0.4404	30.35	1626.47	35.03	350,000
3219	23.9%	0.4404	30.35	1626.47	35.03	350,000
3220	23.9%	0.4404	30.35	1626.47	35.03	350,000
3221	23.9%	0.4404	30.35	1626.47	35.03	350,000
3222	23.9%	0.4404	30.35	1626.47	35.03	350,000
3223	23.9%	0.4404	30.35	1626.47	35.03	350,000
3224	23.9%	0.4404	30.35	1626.47	35.03	350,000

		4 Livingston Tanks 35K			Output from Tank 4.0 total emissions no speciation	
Tank ID	% by Volume Alcohol	Average Ya	AMW Average	Total Pound of Emissions	Alcohol Emissions in pounds	Annual Gallons Through Put
363	15.0%	0.3252	27.13	183.45	101.21	700,000
364	15.0%	0.3252	27.13	183.45	101.21	700,000
365	15.0%	0.3252	27.13	183.45	101.21	700,000
366	15.0%	0.3252	27.13	183.45	101.21	700,000

		4 Livingston Tanks 35K		Output from Tank 4.0 total emissions no speciation		
Tank ID	% by Volume Alcohol	Average Ya	AMW Average	Total Pound of Emissions	Alcohol Emissions in pounds (Max Daily)	Daily Gallons Through Put
363	23.9%	0.4404	30.35	162.66	3.50	35,000
364	23.9%	0.4404	30.35	162.66	3.50	35,000
365	23.9%	0.4404	30.35	162.66	3.50	35,000
366	23.9%	0.4404	30.35	162.66	3.50	35,000

TANKS 4.0.9d
Emissions Report - Detail Format
Tank Indentification and Physical Characteristics

Identification

User Identification:	N-1237-697-0
City:	
State:	
Company:	
Type of Tank:	Vertical Fixed Roof Tank
Description:	

Tank Dimensions

Shell Height (ft):	40.00
Diameter (ft):	12.08
Liquid Height (ft) :	39.00
Avg. Liquid Height (ft):	39.00
Volume (gallons):	33,436.56
Turnovers:	365.00
Net Throughput(gal/yr):	12,775,000.00
Is Tank Heated (y/n):	Y

Paint Characteristics

Shell Color/Shade:	White/White
Shell Condition	Good
Roof Color/Shade:	White/White
Roof Condition:	Good

Roof Characteristics

Type:	Cone
Height (ft)	3.00
Slope (ft/ft) (Cone Roof)	0.50

Breather Vent Settings

Vacuum Settings (psig):	0.00
Pressure Settings (psig)	0.00

Meterological Data used in Emissions Calculations: Fresno, California (Avg Atmospheric Pressure = 14.56 psia)

TANKS 4.0.9d
Emissions Report - Detail Format
Liquid Contents of Storage Tank

N-1237-697-0 - Vertical Fixed Roof Tank

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F) Avg.	Min.	Max.	Liquid Bulk Temp (deg F)	Vapor Pressure (psia) Avg.	Min.	Max.	Vapor Mol. Weight.	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Wine 23.9 % Vol Alcohol	Jan	81.00	81.00	81.00	81.00	0.8500	0.8500	0.8500	30.3355			20.45	Option 1: VP70 = .58508 VP80 = .81869
Wine 23.9 % Vol Alcohol	Feb	81.00	81.00	81.00	81.00	0.8500	0.8500	0.8500	30.3355			20.45	Option 1: VP70 = .58508 VP80 = .81869
Wine 23.9 % Vol Alcohol	Mar	81.00	81.00	81.00	81.00	0.8500	0.8500	0.8500	30.3355			20.45	Option 1: VP70 = .58508 VP80 = .81869
Wine 23.9 % Vol Alcohol	Apr	81.00	81.00	81.00	81.00	0.8500	0.8500	0.8500	30.3355			20.45	Option 1: VP70 = .58508 VP80 = .81869
Wine 23.9 % Vol Alcohol	May	81.00	81.00	81.00	81.00	0.8500	0.8500	0.8500	30.3355			20.45	Option 1: VP70 = .58508 VP80 = .81869
Wine 23.9 % Vol Alcohol	Jun	81.00	81.00	81.00	81.00	0.8500	0.8500	0.8500	30.3355			20.45	Option 1: VP70 = .58508 VP80 = .81869
Wine 23.9 % Vol Alcohol	Jul	81.00	81.00	81.00	81.00	0.8500	0.8500	0.8500	30.3355			20.45	Option 1: VP70 = .58508 VP80 = .81869
Wine 23.9 % Vol Alcohol	Aug	81.00	81.00	81.00	81.00	0.8500	0.8500	0.8500	30.3355			20.45	Option 1: VP70 = .58508 VP80 = .81869
Wine 23.9 % Vol Alcohol	Sep	81.00	81.00	81.00	81.00	0.8500	0.8500	0.8500	30.3355			20.45	Option 1: VP70 = .58508 VP80 = .81869
Wine 23.9 % Vol Alcohol	Oct	81.00	81.00	81.00	81.00	0.8500	0.8500	0.8500	30.3355			20.45	Option 1: VP70 = .58508 VP80 = .81869
Wine 23.9 % Vol Alcohol	Nov	81.00	81.00	81.00	81.00	0.8500	0.8500	0.8500	30.3355			20.45	Option 1: VP70 = .58508 VP80 = .81869
Wine 23.9 % Vol Alcohol	Dec	81.00	81.00	81.00	81.00	0.8500	0.8500	0.8500	30.3355			20.45	Option 1: VP70 = .58508 VP80 = .81869

TANKS 4.0.9d
Emissions Report - Detail Format
Detail Calculations (AP-42)

N-1237-697-0 - Vertical Fixed Roof Tank

Month:	January	February	March	April	May	June	July	August	September	October	November	December
Standing Losses (lb):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vapor Space Volume (cu ft):	229.2207	229.2207	229.2207	229.2207	229.2207	229.2207	229.2207	229.2207	229.2207	229.2207	229.2207	229.2207
Vapor Density (lb/cu ft):	0.0044	0.0044	0.0044	0.0044	0.0044	0.0044	0.0044	0.0044	0.0044	0.0044	0.0044	0.0044
Vapor Space Expansion Factor:	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vented Vapor Saturation Factor:	0.9173	0.9173	0.9173	0.9173	0.9173	0.9173	0.9173	0.9173	0.9173	0.9173	0.9173	0.9173
Tank Vapor Space Volume:												
Vapor Space Volume (cu ft):	229.2207	229.2207	229.2207	229.2207	229.2207	229.2207	229.2207	229.2207	229.2207	229.2207	229.2207	229.2207
Tank Diameter (ft):	12.0800	12.0800	12.0800	12.0800	12.0800	12.0800	12.0800	12.0800	12.0800	12.0800	12.0800	12.0800
Vapor Space Outage (ft):	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000
Tank Shell Height (ft):	40.0000	40.0000	40.0000	40.0000	40.0000	40.0000	40.0000	40.0000	40.0000	40.0000	40.0000	40.0000
Average Liquid Height (ft):	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000
Roof Outage (ft):	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Roof Outage (Cone Roof)												
Roof Outage (ft):	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Roof Height (ft):	3.0000	3.0000	3.0000	3.0000	3.0000	3.0000	3.0000	3.0000	3.0000	3.0000	3.0000	3.0000
Roof Slope (ft/ft):	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000
Shell Radius (ft):	6.0400	6.0400	6.0400	6.0400	6.0400	6.0400	6.0400	6.0400	6.0400	6.0400	6.0400	6.0400
Vapor Density												
Vapor Density (lb/cu ft):	0.0044	0.0044	0.0044	0.0044	0.0044	0.0044	0.0044	0.0044	0.0044	0.0044	0.0044	0.0044
Vapor Molecular Weight (lb/lb-mole):	30.3355	30.3355	30.3355	30.3355	30.3355	30.3355	30.3355	30.3355	30.3355	30.3355	30.3355	30.3355
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500
Daily Avg. Liquid Surface Temp. (deg. R):	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700
Daily Average Ambient Temp. (deg. F):	45.7500	51.1000	55.0000	61.2000	68.9500	76.5500	81.8500	80.2500	74.4500	65.2000	53.6000	45.4000
Ideal Gas Constant R (psia cuft / (lb-mol-deg R)):	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731
Liquid Bulk Temperature (deg. R):	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700
Tank Paint Solar Absorptance (Shell):	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700
Tank Paint Solar Absorptance (Roof):	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700
Daily Total Solar Insulation Factor (Btu/sqft day):	668.1706	1,022.2439	1,488.6308	1,992.7729	2,390.9467	2,566.7143	2,551.4853	2,279.5850	1,860.7886	1,369.9719	851.5527	592.3431
Vapor Space Expansion Factor												
Vapor Space Expansion Factor:	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Daily Vapor Temperature Range (deg. R):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Daily Vapor Pressure Range (psia):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Breather Vent Press. Setting Range(psia):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500
Vapor Pressure at Daily Minimum Liquid Surface Temperature (psia):	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500
Vapor Pressure at Daily Maximum Liquid Surface Temperature (psia):	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500
Daily Avg. Liquid Surface Temp. (deg R):	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700
Daily Min. Liquid Surface Temp. (deg R):	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700
Daily Max. Liquid Surface Temp. (deg R):	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700
Daily Ambient Temp. Range (deg. R):	16.7000	21.2000	23.2000	27.8000	30.5000	32.3000	33.5000	32.9000	31.3000	29.0000	22.2000	16.6000
Vented Vapor Saturation Factor												
Vented Vapor Saturation Factor:	0.9173	0.9173	0.9173	0.9173	0.9173	0.9173	0.9173	0.9173	0.9173	0.9173	0.9173	0.9173
Vapor Pressure at Daily Average Liquid: Surface Temperature (psia):	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500
Vapor Space Outage (ft):	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000

Working Losses (lb):	162.6564	162.6564	162.6564	162.6564	162.6564	162.6564	162.6564	162.6564	162.6564	162.6564	162.6564	162.6564
Vapor Molecular Weight (lb/lb-mole):	30.3355	30.3355	30.3355	30.3355	30.3355	30.3355	30.3355	30.3355	30.3355	30.3355	30.3355	30.3355
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500
Net Throughput (gal/mo.):	1,064,583.3330	1,064,583.3330	1,064,583.3330	1,064,583.3330	1,064,583.3330	1,064,583.3330	1,064,583.3330	1,064,583.3330	1,064,583.3330	1,064,583.3330	1,064,583.3330	1,064,583.3330
Annual Turnovers:	365.0000	365.0000	365.0000	365.0000	365.0000	365.0000	365.0000	365.0000	365.0000	365.0000	365.0000	365.0000
Turnover Factor:	0.2489	0.2489	0.2489	0.2489	0.2489	0.2489	0.2489	0.2489	0.2489	0.2489	0.2489	0.2489
Maximum Liquid Volume (gal):	33,436.5572	33,436.5572	33,436.5572	33,436.5572	33,436.5572	33,436.5572	33,436.5572	33,436.5572	33,436.5572	33,436.5572	33,436.5572	33,436.5572
Maximum Liquid Height (ft):	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000
Tank Diameter (ft):	12.0800	12.0800	12.0800	12.0800	12.0800	12.0800	12.0800	12.0800	12.0800	12.0800	12.0800	12.0800
Working Loss Product Factor:	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total Losses (lb):	162.6564	162.6564	162.6564	162.6564	162.6564	162.6564	162.6564	162.6564	162.6564	162.6564	162.6564	162.6564

TANKS 4.0.9d
Emissions Report - Detail Format
Individual Tank Emission Totals

Emissions Report for: January, February, March, April, May, June, July, August, September, October, November, December

N-1237-697-0 - Vertical Fixed Roof Tank

	Losses(lbs)		
Components	Working Loss	Breathing Loss	Total Emissions
Wine 23.9 % Vol Alcohol	1,951.88	0.00	1,951.88

TANKS 4.0.9d
Emissions Report - Detail Format
Tank Indentification and Physical Characteristics

Identification

User Identification:	N-1237-701-0
City:	
State:	
Company:	
Type of Tank:	Vertical Fixed Roof Tank
Description:	

Tank Dimensions

Shell Height (ft):	40.00
Diameter (ft):	39.08
Liquid Height (ft) :	39.00
Avg. Liquid Height (ft):	39.00
Volume (gallons):	349,942.58
Turnovers:	365.06
Net Throughput(gal/yr):	127,750,000.00
Is Tank Heated (y/n):	Y

Paint Characteristics

Shell Color/Shade:	White/White
Shell Condition	Good
Roof Color/Shade:	White/White
Roof Condition:	Good

Roof Characteristics

Type:	Cone
Height (ft)	3.00
Slope (ft/ft) (Cone Roof)	0.15

Breather Vent Settings

Vacuum Settings (psig):	0.00
Pressure Settings (psig)	0.00

Meterological Data used in Emissions Calculations: Fresno, Califomia (Avg Atmospheric Pressure = 14.56 psia)

TANKS 4.0.9d
Emissions Report - Detail Format
Liquid Contents of Storage Tank

N-1237-701-0 - Vertical Fixed Roof Tank

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F) Avg.	Min.	Max.	Liquid Bulk Temp (deg F)	Vapor Pressure (psia) Avg.	Min.	Max.	Vapor Mol. Weight.	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Wine 23.9 % Vol Alcohol	Jan	81.00	81.00	81.00	81.00	0.8500	0.8500	0.8500	30.3355			20.45	Option 1: VP70 = .58508 VP80 = .81869
Wine 23.9 % Vol Alcohol	Feb	81.00	81.00	81.00	81.00	0.8500	0.8500	0.8500	30.3355			20.45	Option 1: VP70 = .58508 VP80 = .81869
Wine 23.9 % Vol Alcohol	Mar	81.00	81.00	81.00	81.00	0.8500	0.8500	0.8500	30.3355			20.45	Option 1: VP70 = .58508 VP80 = .81869
Wine 23.9 % Vol Alcohol	Apr	81.00	81.00	81.00	81.00	0.8500	0.8500	0.8500	30.3355			20.45	Option 1: VP70 = .58508 VP80 = .81869
Wine 23.9 % Vol Alcohol	May	81.00	81.00	81.00	81.00	0.8500	0.8500	0.8500	30.3355			20.45	Option 1: VP70 = .58508 VP80 = .81869
Wine 23.9 % Vol Alcohol	Jun	81.00	81.00	81.00	81.00	0.8500	0.8500	0.8500	30.3355			20.45	Option 1: VP70 = .58508 VP80 = .81869
Wine 23.9 % Vol Alcohol	Jul	81.00	81.00	81.00	81.00	0.8500	0.8500	0.8500	30.3355			20.45	Option 1: VP70 = .58508 VP80 = .81869
Wine 23.9 % Vol Alcohol	Aug	81.00	81.00	81.00	81.00	0.8500	0.8500	0.8500	30.3355			20.45	Option 1: VP70 = .58508 VP80 = .81869
Wine 23.9 % Vol Alcohol	Sep	81.00	81.00	81.00	81.00	0.8500	0.8500	0.8500	30.3355			20.45	Option 1: VP70 = .58508 VP80 = .81869
Wine 23.9 % Vol Alcohol	Oct	81.00	81.00	81.00	81.00	0.8500	0.8500	0.8500	30.3355			20.45	Option 1: VP70 = .58508 VP80 = .81869
Wine 23.9 % Vol Alcohol	Nov	81.00	81.00	81.00	81.00	0.8500	0.8500	0.8500	30.3355			20.45	Option 1: VP70 = .58508 VP80 = .81869
Wine 23.9 % Vol Alcohol	Dec	81.00	81.00	81.00	81.00	0.8500	0.8500	0.8500	30.3355			20.45	Option 1: VP70 = .58508 VP80 = .81869

TANKS 4.0.9d
Emissions Report - Detail Format
Detail Calculations (AP-42)

N-1237-701-0 - Vertical Fixed Roof Tank

Month:	January	February	March	April	May	June	July	August	September	October	November	December
Standing Losses (lb):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vapor Space Volume (cu ft):	2,398.9930	2,398.9930	2,398.9930	2,398.9930	2,398.9930	2,398.9930	2,398.9930	2,398.9930	2,398.9930	2,398.9930	2,398.9930	2,398.9930
Vapor Density (lb/cu ft):	0.0044	0.0044	0.0044	0.0044	0.0044	0.0044	0.0044	0.0044	0.0044	0.0044	0.0044	0.0044
Vapor Space Expansion Factor:	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vented Vapor Saturation Factor:	0.9173	0.9173	0.9173	0.9173	0.9173	0.9173	0.9173	0.9173	0.9173	0.9173	0.9173	0.9173
Tank Vapor Space Volume:												
Vapor Space Volume (cu ft):	2,398.9930	2,398.9930	2,398.9930	2,398.9930	2,398.9930	2,398.9930	2,398.9930	2,398.9930	2,398.9930	2,398.9930	2,398.9930	2,398.9930
Tank Diameter (ft):	39.0800	39.0800	39.0800	39.0800	39.0800	39.0800	39.0800	39.0800	39.0800	39.0800	39.0800	39.0800
Vapor Space Outage (ft):	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000
Tank Shell Height (ft):	40.0000	40.0000	40.0000	40.0000	40.0000	40.0000	40.0000	40.0000	40.0000	40.0000	40.0000	40.0000
Average Liquid Height (ft):	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000
Roof Outage (ft):	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Roof Outage (Cone Roof)												
Roof Outage (ft):	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Roof Height (ft):	3.0000	3.0000	3.0000	3.0000	3.0000	3.0000	3.0000	3.0000	3.0000	3.0000	3.0000	3.0000
Roof Slope (ft/ft):	0.1500	0.1500	0.1500	0.1500	0.1500	0.1500	0.1500	0.1500	0.1500	0.1500	0.1500	0.1500
Shell Radius (ft):	19.5400	19.5400	19.5400	19.5400	19.5400	19.5400	19.5400	19.5400	19.5400	19.5400	19.5400	19.5400
Vapor Density												
Vapor Density (lb/cu ft):	0.0044	0.0044	0.0044	0.0044	0.0044	0.0044	0.0044	0.0044	0.0044	0.0044	0.0044	0.0044
Vapor Molecular Weight (lb/lb-mole):	30.3355	30.3355	30.3355	30.3355	30.3355	30.3355	30.3355	30.3355	30.3355	30.3355	30.3355	30.3355
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500
Daily Avg. Liquid Surface Temp. (deg. R):	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700
Daily Average Ambient Temp. (deg. F):	45.7500	51.1000	55.0000	61.2000	68.9500	76.5500	81.8500	80.2500	74.4500	65.2000	53.6000	45.4000
Ideal Gas Constant R (psia cuft / (lb-mol-deg R)):	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731
Liquid Bulk Temperature (deg. R):	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700
Tank Paint Solar Absorptance (Shell):	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700
Tank Paint Solar Absorptance (Roof):	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700
Daily Total Solar Insulation Factor (Btu/sqft day):	668.1706	1,022.2439	1,488.6308	1,992.7729	2,390.9467	2,566.7143	2,551.4853	2,279.5850	1,860.7886	1,369.9719	851.5527	592.3431
Vapor Space Expansion Factor												
Vapor Space Expansion Factor:	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Daily Vapor Temperature Range (deg. R):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Daily Vapor Pressure Range (psia):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Breather Vent Press. Setting Range(psia):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500
Vapor Pressure at Daily Minimum Liquid Surface Temperature (psia):	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500
Vapor Pressure at Daily Maximum Liquid Surface Temperature (psia):	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500
Daily Avg. Liquid Surface Temp. (deg R):	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700
Daily Min. Liquid Surface Temp. (deg R):	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700
Daily Max. Liquid Surface Temp. (deg R):	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700
Daily Ambient Temp. Range (deg. R):	16.7000	21.2000	23.2000	27.8000	30.5000	32.3000	33.5000	32.9000	31.3000	29.0000	22.2000	16.6000
Vented Vapor Saturation Factor												
Vented Vapor Saturation Factor:	0.9173	0.9173	0.9173	0.9173	0.9173	0.9173	0.9173	0.9173	0.9173	0.9173	0.9173	0.9173
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500
Vapor Space Outage (ft):	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000

Working Losses (lb):	1,626.4759	1,626.4759	1,626.4759	1,626.4759	1,626.4759	1,626.4759	1,626.4759	1,626.4759	1,626.4759	1,626.4759	1,626.4759	1,626.4759
Vapor Molecular Weight (lb/lb-mole):	30.3355	30.3355	30.3355	30.3355	30.3355	30.3355	30.3355	30.3355	30.3355	30.3355	30.3355	30.3355
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500
Net Throughput (gal/mo.):	10,645,833.3300	10,645,833.3300	10,645,833.3300	10,645,833.3300	10,645,833.3300	10,645,833.3300	10,645,833.3300	10,645,833.3300	10,645,833.3300	10,645,833.3300	10,645,833.3300	10,645,833.3300
Annual Turnovers:	365.0599	365.0599	365.0599	365.0599	365.0599	365.0599	365.0599	365.0599	365.0599	365.0599	365.0599	365.0599
Turnover Factor:	0.2488	0.2488	0.2488	0.2488	0.2488	0.2488	0.2488	0.2488	0.2488	0.2488	0.2488	0.2488
Maximum Liquid Volume (gal):	349,942.5843	349,942.5843	349,942.5843	349,942.5843	349,942.5843	349,942.5843	349,942.5843	349,942.5843	349,942.5843	349,942.5843	349,942.5843	349,942.5843
Maximum Liquid Height (ft):	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000
Tank Diameter (ft):	39.0800	39.0800	39.0800	39.0800	39.0800	39.0800	39.0800	39.0800	39.0800	39.0800	39.0800	39.0800
Working Loss Product Factor:	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total Losses (lb):	1,626.4759	1,626.4759	1,626.4759	1,626.4759	1,626.4759	1,626.4759	1,626.4759	1,626.4759	1,626.4759	1,626.4759	1,626.4759	1,626.4759

TANKS 4.0.9d
Emissions Report - Detail Format
Individual Tank Emission Totals

Emissions Report for: January, February, March, April, May, June, July, August, September, October, November, December

N-1237-701-0 - Vertical Fixed Roof Tank

	Losses(lbs)		
Components	Working Loss	Breathing Loss	Total Emissions
Wine 23.9 % Vol Alcohol	19,517.71	0.00	19,517.71

TANKS 4.0.9d
Emissions Report - Detail Format
Tank Indentification and Physical Characteristics

Identification

User Identification:	N-1237-709-0
City:	
State:	
Company:	
Type of Tank:	Vertical Fixed Roof Tank
Description:	

Tank Dimensions

Shell Height (ft):	41.00
Diameter (ft):	51.00
Liquid Height (ft) :	41.00
Avg. Liquid Height (ft):	41.00
Volume (gallons):	595,974.99
Turnovers:	365.00
Net Throughput(gal/yr):	229,585,000.00
Is Tank Heated (y/n):	Y

Paint Characteristics

Shell Color/Shade:	White/White
Shell Condition	Good
Roof Color/Shade:	White/White
Roof Condition:	Good

Roof Characteristics

Type:	Cone
Height (ft)	3.00
Slope (ft/ft) (Cone Roof)	0.12

Breather Vent Settings

Vacuum Settings (psig):	0.00
Pressure Settings (psig)	0.00

Meterological Data used in Emissions Calculations: Fresno, California (Avg Atmospheric Pressure = 14.56 psia)

TANKS 4.0.9d
Emissions Report - Detail Format
Liquid Contents of Storage Tank

N-1237-709-0 - Vertical Fixed Roof Tank

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F) Avg.	Min.	Max.	Liquid Bulk Temp (deg F)	Vapor Pressure (psia) Avg.	Min.	Max.	Vapor Mol. Weight.	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Wine 23.9 % Vol Alcohol	Jan	81.00	81.00	81.00	81.00	0.8500	0.8500	0.8500	30.3355			20.45	Option 1: VP70 = .58508 VP80 = .81869
Wine 23.9 % Vol Alcohol	Feb	81.00	81.00	81.00	81.00	0.8500	0.8500	0.8500	30.3355			20.45	Option 1: VP70 = .58508 VP80 = .81869
Wine 23.9 % Vol Alcohol	Mar	81.00	81.00	81.00	81.00	0.8500	0.8500	0.8500	30.3355			20.45	Option 1: VP70 = .58508 VP80 = .81869
Wine 23.9 % Vol Alcohol	Apr	81.00	81.00	81.00	81.00	0.8500	0.8500	0.8500	30.3355			20.45	Option 1: VP70 = .58508 VP80 = .81869
Wine 23.9 % Vol Alcohol	May	81.00	81.00	81.00	81.00	0.8500	0.8500	0.8500	30.3355			20.45	Option 1: VP70 = .58508 VP80 = .81869
Wine 23.9 % Vol Alcohol	Jun	81.00	81.00	81.00	81.00	0.8500	0.8500	0.8500	30.3355			20.45	Option 1: VP70 = .58508 VP80 = .81869
Wine 23.9 % Vol Alcohol	Jul	81.00	81.00	81.00	81.00	0.8500	0.8500	0.8500	30.3355			20.45	Option 1: VP70 = .58508 VP80 = .81869
Wine 23.9 % Vol Alcohol	Aug	81.00	81.00	81.00	81.00	0.8500	0.8500	0.8500	30.3355			20.45	Option 1: VP70 = .58508 VP80 = .81869
Wine 23.9 % Vol Alcohol	Sep	81.00	81.00	81.00	81.00	0.8500	0.8500	0.8500	30.3355			20.45	Option 1: VP70 = .58508 VP80 = .81869
Wine 23.9 % Vol Alcohol	Oct	81.00	81.00	81.00	81.00	0.8500	0.8500	0.8500	30.3355			20.45	Option 1: VP70 = .58508 VP80 = .81869
Wine 23.9 % Vol Alcohol	Nov	81.00	81.00	81.00	81.00	0.8500	0.8500	0.8500	30.3355			20.45	Option 1: VP70 = .58508 VP80 = .81869
Wine 23.9 % Vol Alcohol	Dec	81.00	81.00	81.00	81.00	0.8500	0.8500	0.8500	30.3355			20.45	Option 1: VP70 = .58508 VP80 = .81869

TANKS 4.0.9d
Emissions Report - Detail Format
Detail Calculations (AP-42)

N-1237-709-0 - Vertical Fixed Roof Tank

Month:	January	February	March	April	May	June	July	August	September	October	November	December
Standing Losses (lb):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vapor Space Volume (cu ft):	2,042.8206	2,042.8206	2,042.8206	2,042.8206	2,042.8206	2,042.8206	2,042.8206	2,042.8206	2,042.8206	2,042.8206	2,042.8206	2,042.8206
Vapor Density (lb/cu ft):	0.0044	0.0044	0.0044	0.0044	0.0044	0.0044	0.0044	0.0044	0.0044	0.0044	0.0044	0.0044
Vapor Space Expansion Factor:	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vented Vapor Saturation Factor:	0.9569	0.9569	0.9569	0.9569	0.9569	0.9569	0.9569	0.9569	0.9569	0.9569	0.9569	0.9569
Tank Vapor Space Volume:												
Vapor Space Volume (cu ft):	2,042.8206	2,042.8206	2,042.8206	2,042.8206	2,042.8206	2,042.8206	2,042.8206	2,042.8206	2,042.8206	2,042.8206	2,042.8206	2,042.8206
Tank Diameter (ft):	51.0000	51.0000	51.0000	51.0000	51.0000	51.0000	51.0000	51.0000	51.0000	51.0000	51.0000	51.0000
Vapor Space Outage (ft):	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Tank Shell Height (ft):	41.0000	41.0000	41.0000	41.0000	41.0000	41.0000	41.0000	41.0000	41.0000	41.0000	41.0000	41.0000
Average Liquid Height (ft):	41.0000	41.0000	41.0000	41.0000	41.0000	41.0000	41.0000	41.0000	41.0000	41.0000	41.0000	41.0000
Roof Outage (ft):	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Roof Outage (Cone Roof)												
Roof Outage (ft):	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Roof Height (ft):	3.0000	3.0000	3.0000	3.0000	3.0000	3.0000	3.0000	3.0000	3.0000	3.0000	3.0000	3.0000
Roof Slope (ft/ft):	0.1200	0.1200	0.1200	0.1200	0.1200	0.1200	0.1200	0.1200	0.1200	0.1200	0.1200	0.1200
Shell Radius (ft):	25.5000	25.5000	25.5000	25.5000	25.5000	25.5000	25.5000	25.5000	25.5000	25.5000	25.5000	25.5000
Vapor Density												
Vapor Density (lb/cu ft):	0.0044	0.0044	0.0044	0.0044	0.0044	0.0044	0.0044	0.0044	0.0044	0.0044	0.0044	0.0044
Vapor Molecular Weight (lb/lb-mole):	30.3355	30.3355	30.3355	30.3355	30.3355	30.3355	30.3355	30.3355	30.3355	30.3355	30.3355	30.3355
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500
Daily Avg. Liquid Surface Temp. (deg. R):	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700
Daily Average Ambient Temp. (deg. F):	45.7500	51.1000	55.0000	61.2000	68.9500	76.5500	81.8500	80.2500	74.4500	65.2000	53.6000	45.4000
Ideal Gas Constant R (psia cuft / (lb-mol-deg R)):	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731
Liquid Bulk Temperature (deg. R):	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700
Tank Paint Solar Absorptance (Shell):	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700
Tank Paint Solar Absorptance (Roof):	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700
Daily Total Solar Insulation Factor (Btu/sqft day):	668.1706	1,022.2439	1,488.6308	1,992.7729	2,390.9467	2,566.7143	2,551.4853	2,279.5850	1,860.7886	1,369.9719	851.5527	592.3431
Vapor Space Expansion Factor												
Vapor Space Expansion Factor:	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Daily Vapor Temperature Range (deg. R):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Daily Vapor Pressure Range (psia):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Breather Vent Press. Setting Range(psia):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500
Vapor Pressure at Daily Minimum Liquid Surface Temperature (psia):	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500
Vapor Pressure at Daily Maximum Liquid Surface Temperature (psia):	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500
Daily Avg. Liquid Surface Temp. (deg R):	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700
Daily Min. Liquid Surface Temp. (deg R):	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700
Daily Max. Liquid Surface Temp. (deg R):	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700	540.6700
Daily Ambient Temp. Range (deg. R):	16.7000	21.2000	23.2000	27.8000	30.5000	32.3000	33.5000	32.9000	31.3000	29.0000	22.2000	16.6000
Vented Vapor Saturation Factor												
Vented Vapor Saturation Factor:	0.9569	0.9569	0.9569	0.9569	0.9569	0.9569	0.9569	0.9569	0.9569	0.9569	0.9569	0.9569
Vapor Pressure at Daily Average Liquid: Surface Temperature (psia):	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500
Vapor Space Outage (ft):	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Working Losses (lb):	2,923.1680	2,923.1680	2,923.1680	2,923.1680	2,923.1680	2,923.1680	2,923.1680	2,923.1680	2,923.1680	2,923.1680	2,923.1680	2,923.1680
Vapor Molecular Weight (lb/lb-mole):	30.3355	30.3355	30.3355	30.3355	30.3355	30.3355	30.3355	30.3355	30.3355	30.3355	30.3355	30.3355
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500
Net Throughput (gal/mo.):	19,132,083.330019,132,083.330019,132,083.330019,132,083.330019,132,083.330019,132,083.330019,132,083.330019,132,083.330019,132,083.330019,132,083.330019,132,083.330019,132,083.3300											
Annual Turnovers:	365.0000	365.0000	365.0000	365.0000	365.0000	365.0000	365.0000	365.0000	365.0000	365.0000	365.0000	365.0000
Turnover Factor:	0.2489	0.2489	0.2489	0.2489	0.2489	0.2489	0.2489	0.2489	0.2489	0.2489	0.2489	0.2489
Maximum Liquid Volume (gal):	595,974.9925	595,974.9925	595,974.9925	595,974.9925	595,974.9925	595,974.9925	595,974.9925	595,974.9925	595,974.9925	595,974.9925	595,974.9925	595,974.9925
Maximum Liquid Height (ft):	41.0000	41.0000	41.0000	41.0000	41.0000	41.0000	41.0000	41.0000	41.0000	41.0000	41.0000	41.0000
Tank Diameter (ft):	51.0000	51.0000	51.0000	51.0000	51.0000	51.0000	51.0000	51.0000	51.0000	51.0000	51.0000	51.0000
Working Loss Product Factor:	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total Losses (lb):	2,923.1680	2,923.1680	2,923.1680	2,923.1680	2,923.1680	2,923.1680	2,923.1680	2,923.1680	2,923.1680	2,923.1680	2,923.1680	2,923.1680

TANKS 4.0.9d
Emissions Report - Detail Format
Individual Tank Emission Totals

Emissions Report for: January, February, March, April, May, June, July, August, September, October, November, December

N-1237-709-0 - Vertical Fixed Roof Tank

	Losses(lbs)		
Components	Working Loss	Breathing Loss	Total Emissions
Wine 23.9 % Vol Alcohol	35,078.02	0.00	35,078.02

TANKS 4.0.9d
Emissions Report - Detail Format
Tank Indentification and Physical Characteristics

Identification

User Identification:	Livingston 4 35K Tanks 2014/2015 Annual
City:	Livinston
State:	California
Company:	E and J Gallo Winery
Type of Tank:	Vertical Fixed Roof Tank
Description:	Stainless steel insulated wine tank painted white. Flat sloping roof. 4 tanks to be built. This emission report is for one tank. Tank numbers 363 through 366. Equivalent cone roof volume used for calculations.

Tank Dimensions

Shell Height (ft):	40.00
Diameter (ft):	12.08
Liquid Height (ft) :	39.00
Avg. Liquid Height (ft):	39.00
Volume (gallons):	33,453.17
Turnovers:	20.92
Net Throughput(gal/yr):	700,000.00
Is Tank Heated (y/n):	Y

Paint Characteristics

Shell Color/Shade:	White/White
Shell Condition	Good
Roof Color/Shade:	White/White
Roof Condition:	Good

Roof Characteristics

Type:	Cone
Height (ft)	3.00
Slope (ft/ft) (Cone Roof)	0.50

Breather Vent Settings

Vacuum Settings (psig):	0.00
Pressure Settings (psig)	0.00

Meterological Data used in Emissions Calculations: Fresno, California (Avg Atmospheric Pressure = 14.56 psia)

TANKS 4.0.9d
Emissions Report - Detail Format
Liquid Contents of Storage Tank

Livingston 4 35K Tanks 2014/2015 Annual - Vertical Fixed Roof Tank
Livinston, California

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F) Avg.	Min.	Max.	Liquid Bulk Temp (deg F)	Vapor Pressure (psia) Avg.	Min.	Max.	Vapor Mol. Weight.	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Wine 15.0 % Vol Alcohol	Jan	63.30	63.30	63.30	63.30	0.4058	0.4058	0.4058	27.1255			19.46	Option 1: VP60 = .35513 VP70 = .50865
Wine 15.0 % Vol Alcohol	Feb	63.30	63.30	63.30	63.30	0.4058	0.4058	0.4058	27.1255			19.46	Option 1: VP60 = .35513 VP70 = .50865
Wine 15.0 % Vol Alcohol	Mar	63.30	63.30	63.30	63.30	0.4058	0.4058	0.4058	27.1255			19.46	Option 1: VP60 = .35513 VP70 = .50865
Wine 15.0 % Vol Alcohol	Apr	63.30	63.30	63.30	63.30	0.4058	0.4058	0.4058	27.1255			19.46	Option 1: VP60 = .35513 VP70 = .50865
Wine 15.0 % Vol Alcohol	May	63.30	63.30	63.30	63.30	0.4058	0.4058	0.4058	27.1255			19.46	Option 1: VP60 = .35513 VP70 = .50865
Wine 15.0 % Vol Alcohol	Jun	63.30	63.30	63.30	63.30	0.4058	0.4058	0.4058	27.1255			19.46	Option 1: VP60 = .35513 VP70 = .50865
Wine 15.0 % Vol Alcohol	Jul	63.30	63.30	63.30	63.30	0.4058	0.4058	0.4058	27.1255			19.46	Option 1: VP60 = .35513 VP70 = .50865
Wine 15.0 % Vol Alcohol	Aug	63.30	63.30	63.30	63.30	0.4058	0.4058	0.4058	27.1255			19.46	Option 1: VP60 = .35513 VP70 = .50865
Wine 15.0 % Vol Alcohol	Sep	63.30	63.30	63.30	63.30	0.4058	0.4058	0.4058	27.1255			19.46	Option 1: VP60 = .35513 VP70 = .50865
Wine 15.0 % Vol Alcohol	Oct	63.30	63.30	63.30	63.30	0.4058	0.4058	0.4058	27.1255			19.46	Option 1: VP60 = .35513 VP70 = .50865
Wine 15.0 % Vol Alcohol	Nov	63.30	63.30	63.30	63.30	0.4058	0.4058	0.4058	27.1255			19.46	Option 1: VP60 = .35513 VP70 = .50865
Wine 15.0 % Vol Alcohol	Dec	63.30	63.30	63.30	63.30	0.4058	0.4058	0.4058	27.1255			19.46	Option 1: VP60 = .35513 VP70 = .50865

TANKS 4.0.9d
Emissions Report - Detail Format
Detail Calculations (AP-42)

Livingston 4 35K Tanks 2014/2015 Annual - Vertical Fixed Roof Tank
Livinston, California

Month:	January	February	March	April	May	June	July	August	September	October	November	December
Standing Losses (lb):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vapor Space Volume (cu ft):	229.3345	229.3345	229.3345	229.3345	229.3345	229.3345	229.3345	229.3345	229.3345	229.3345	229.3345	229.3345
Vapor Density (lb/cu ft):	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020
Vapor Space Expansion Factor:	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vented Vapor Saturation Factor:	0.9588	0.9588	0.9588	0.9588	0.9588	0.9588	0.9588	0.9588	0.9588	0.9588	0.9588	0.9588
Tank Vapor Space Volume:												
Vapor Space Volume (cu ft):	229.3345	229.3345	229.3345	229.3345	229.3345	229.3345	229.3345	229.3345	229.3345	229.3345	229.3345	229.3345
Tank Diameter (ft):	12.0830	12.0830	12.0830	12.0830	12.0830	12.0830	12.0830	12.0830	12.0830	12.0830	12.0830	12.0830
Vapor Space Outage (ft):	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000
Tank Shell Height (ft):	40.0000	40.0000	40.0000	40.0000	40.0000	40.0000	40.0000	40.0000	40.0000	40.0000	40.0000	40.0000
Average Liquid Height (ft):	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000
Roof Outage (ft):	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Roof Outage (Cone Roof)												
Roof Outage (ft):	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Roof Height (ft):	3.0000	3.0000	3.0000	3.0000	3.0000	3.0000	3.0000	3.0000	3.0000	3.0000	3.0000	3.0000
Roof Slope (ft/ft):	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000	0.5000
Shell Radius (ft):	6.0415	6.0415	6.0415	6.0415	6.0415	6.0415	6.0415	6.0415	6.0415	6.0415	6.0415	6.0415
Vapor Density												
Vapor Density (lb/cu ft):	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020
Vapor Molecular Weight (lb/lb-mole):	27.1255	27.1255	27.1255	27.1255	27.1255	27.1255	27.1255	27.1255	27.1255	27.1255	27.1255	27.1255
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058
Daily Avg. Liquid Surface Temp. (deg. R):	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700
Daily Average Ambient Temp. (deg. F):	45.7500	51.1000	55.0000	61.2000	68.9500	76.5500	81.6500	80.2500	74.4500	65.2000	53.6000	45.4000
Ideal Gas Constant R (psia cuft / (lb-mol-deg R)):	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731
Liquid Bulk Temperature (deg. R):	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700
Tank Paint Solar Absorptance (Shell):	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700
Tank Paint Solar Absorptance (Roof):	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700
Daily Total Solar Insulation Factor (Btu/sqft day):	668.1706	1,022.2439	1,488.6308	1,992.7729	2,390.9467	2,566.7143	2,551.4853	2,279.5850	1,860.7888	1,369.9719	851.5527	592.3431
Vapor Space Expansion Factor												
Vapor Space Expansion Factor:	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Daily Vapor Temperature Range (deg. R):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Daily Vapor Pressure Range (psia):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Breather Vent Press. Setting Range(psia):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058
Vapor Pressure at Daily Minimum Liquid Surface Temperature (psia):	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058
Vapor Pressure at Daily Maximum Liquid Surface Temperature (psia):	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058
Daily Avg. Liquid Surface Temp. (deg R):	522.8700	522.8700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700
Daily Min. Liquid Surface Temp. (deg R):	522.9700	522.8700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700
Daily Max. Liquid Surface Temp. (deg R):	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700
Daily Ambient Temp. Range (deg. R):	16.7000	21.2000	23.2000	27.8000	30.5000	32.3000	33.5000	32.9000	31.3000	29.0000	22.2000	16.6000
Vented Vapor Saturation Factor												
Vented Vapor Saturation Factor:	0.9588	0.9588	0.9588	0.9588	0.9588	0.9588	0.9588	0.9588	0.9588	0.9588	0.8588	0.9588
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058
Vapor Space Outage (ft):	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000
Working Losses (lb):	15.2879	15.2879	15.2879	15.2879	15.2879	15.2879	15.2879	15.2879	15.2879	15.2879	15.2879	15.2879
Vapor Molecular Weight (lb/lb-mole):	27.1255	27.1255	27.1255	27.1255	27.1255	27.1255	27.1255	27.1255	27.1255	27.1255	27.1255	27.1255
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058
Net Throughput (gal/mo.):	58,333.3333	58,333.3333	58,333.3333	58,333.3333	58,333.3333	58,333.3333	58,333.3333	58,333.3333	58,333.3333	58,333.3333	58,333.3333	58,333.3333
Annual Turnovers:	20.9248	20.9248	20.9248	20.9248	20.9249	20.9248	20.9248	20.9248	20.9248	20.9248	20.9248	20.9248
Turnover Factor:	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Maximum Liquid Volume (gal):	33,453.1668	33,453.1668	33,453.1668	33,453.1668	33,453.1668	33,453.1668	33,453.1668	33,453.1668	33,453.1668	33,453.1668	33,453.1668	33,453.1668
Maximum Liquid Height (ft):	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000
Tank Diameter (ft):	12.0830	12.0830	12.0830	12.0830	12.0830	12.0830	12.0830	12.0830	12.0830	12.0830	12.0830	12.0830
Working Loss Product Factor:	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total Losses (lb):	15.2879	15.2879	15.2879	15.2879	15.2879	15.2879	15.2879	15.2879	15.2879	15.2978	15.2979	15.2979

TANKS 4.0.9d
Emissions Report - Detail Format
Individual Tank Emission Totals

Emissions Report for: January, February, March, April, May, June, July, August, September, October, November, December

Livingston 4 35K Tanks 2014/2015 Annual - Vertical Fixed Roof Tank
Livinston, California

	Losses(lbs)		
Components	Working Loss	Breathing Loss	Total Emissions
Wine 15.0 % Vol Alcohol	183.45	0.00	183.45

TANKS 4.0.9d
Emissions Report - Detail Format
Tank Indentification and Physical Characteristics

Identification

User Identification:	Livingston 8 350K Tanks 2014/2015 Annual
City:	Livingston
State:	California
Company:	E and J Gallo Winery
Type of Tank:	Vertical Fixed Roof Tank
Description:	Stainless steel insulated wine tank painted white. 8 tanks to be built. This emission report is for one tank. Tank numbers 3217 through 3224.

Tank Dimensions

Shell Height (ft):	40.00
Diameter (ft):	39.08
Liquid Height (ft) :	39.00
Avg. Liquid Height (ft):	39.00
Volume (gallons):	350,000.00
Turnovers:	10.00
Net Throughput(gal/yr):	3,500,000.00
Is Tank Heated (y/n):	Y

Paint Characteristics

Shell Color/Shade:	White/White
Shell Condition	Good
Roof Color/Shade:	White/White
Roof Condition:	Good

Roof Characteristics

Type:	Cone
Height (ft)	3.00
Slope (ft/ft) (Cone Roof)	0.15

Breather Vent Settings

Vacuum Settings (psig):	0.00
Pressure Settings (psig)	0.00

Meterological Data used in Emissions Calculations: Fresno, California (Avg Atmospheric Pressure = 14.56 psia)

TANKS 4.0.9d
Emissions Report - Detail Format
Liquid Contents of Storage Tank

Livingston 8 350K Tanks 2014/2015 Annual - Vertical Fixed Roof Tank
Livingston, California

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F) Avg.	Min.	Max.	Liquid Bulk Temp (deg F)	Vapor Pressure (psia) Avg.	Min.	Max.	Vapor Mol. Weight.	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Wine 15.0 % Vol Alcohol	Jan	63.30	63.30	63.30	63.30	0.4058	0.4058	0.4058	27.1255			19.46	Option 1: VP60 = .35513 VP70 = .50865
Wine 15.0 % Vol Alcohol	Feb	63.30	63.30	63.30	63.30	0.4058	0.4058	0.4058	27.1255			19.46	Option 1: VP60 = .35513 VP70 = .50865
Wine 15.0 % Vol Alcohol	Mar	63.30	63.30	63.30	63.30	0.4058	0.4058	0.4058	27.1255			19.46	Option 1: VP60 = .35513 VP70 = .50865
Wine 15.0 % Vol Alcohol	Apr	63.30	63.30	63.30	63.30	0.4058	0.4058	0.4058	27.1255			19.46	Option 1: VP60 = .35513 VP70 = .50865
Wine 15.0 % Vol Alcohol	May	63.30	63.30	63.30	63.30	0.4058	0.4058	0.4058	27.1255			19.46	Option 1: VP60 = .35513 VP70 = .50865
Wine 15.0 % Vol Alcohol	Jun	63.30	63.30	63.30	63.30	0.4058	0.4058	0.4058	27.1255			19.46	Option 1: VP60 = .35513 VP70 = .50865
Wine 15.0 % Vol Alcohol	Jul	63.30	63.30	63.30	63.30	0.4058	0.4058	0.4058	27.1255			19.46	Option 1: VP60 = .35513 VP70 = .50865
Wine 15.0 % Vol Alcohol	Aug	63.30	63.30	63.30	63.30	0.4058	0.4058	0.4058	27.1255			19.46	Option 1: VP60 = .35513 VP70 = .50865
Wine 15.0 % Vol Alcohol	Sep	63.30	63.30	63.30	63.30	0.4058	0.4058	0.4058	27.1255			19.46	Option 1: VP60 = .35513 VP70 = .50865
Wine 15.0 % Vol Alcohol	Oct	63.30	63.30	63.30	63.30	0.4058	0.4058	0.4058	27.1255			19.46	Option 1: VP60 = .35513 VP70 = .50865
Wine 15.0 % Vol Alcohol	Nov	63.30	63.30	63.30	63.30	0.4058	0.4058	0.4058	27.1255			19.46	Option 1: VP60 = .35513 VP70 = .50865
Wine 15.0 % Vol Alcohol	Dec	63.30	63.30	63.30	63.30	0.4058	0.4058	0.4058	27.1255			19.46	Option 1: VP60 = .35513 VP70 = .50865

TANKS 4.0.9d
Emissions Report - Detail Format
Detail Calculations (AP-42)

Livingston 8 350K Tanks 2014/2015 Annual - Vertical Fixed Roof Tank
Livingston, California

Month:	January	February	March	April	May	June	July	August	September	October	November	December
Standing Losses (lb):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vapor Space Volume (cu ft):	2,399.3614	2,399.3614	2,399.3614	2,399.3614	2,399.3614	2,399.3614	2,399.3614	2,399.3614	2,399.3614	2,399.3614	2,399.3614	2,399.3614
Vapor Density (lb/cu ft):	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020
Vapor Space Expansion Factor:	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vented Vapor Saturation Factor:	0.9588	0.9588	0.9588	0.9588	0.9588	0.9588	0.9588	0.9588	0.9588	0.9588	0.9588	0.9588
Tank Vapor Space Volume:												
Vapor Space Volume (cu ft):	2,399.3614	2,399.3614	2,399.3614	2,399.3614	2,399.3614	2,399.3614	2,399.3614	2,399.3614	2,399.3614	2,399.3614	2,399.3614	2,399.3614
Tank Diameter (ft):	39.0830	39.0830	39.0830	39.0830	39.0830	39.0830	39.0830	39.0830	39.0830	39.0830	39.0830	39.0830
Vapor Space Outage (ft):	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000
Tank Shell Height (ft):	40.0000	40.0000	40.0000	40.0000	40.0000	40.0000	40.0000	40.0000	40.0000	40.0000	40.0000	40.0000
Average Liquid Height (ft):	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000
Roof Outage (ft):	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Roof Outage (Cone Roof)												
Roof Outage (ft):	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Roof Height (ft):	3.0000	3.0000	3.0000	3.0000	3.0000	3.0000	3.0000	3.0000	3.0000	3.0000	3.0000	3.0000
Roof Slope (ft/ft):	0.1500	0.1500	0.1500	0.1500	0.1500	0.1500	0.1500	0.1500	0.1500	0.1500	0.1500	0.1500
Shell Radius (ft):	19.5415	19.5415	19.5415	19.5415	19.5415	19.5415	19.5415	19.5415	19.5415	19.5415	19.5415	19.5415
Vapor Density												
Vapor Density (lb/cu ft):	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020
Vapor Molecular Weight (lb/lb-mole):	27.1255	27.1255	27.1255	27.1255	27.1255	27.1255	27.1255	27.1255	27.1255	27.1255	27.1255	27.1255
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058
Daily Avg. Liquid Surface Temp. (deg. R):	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700
Daily Average Ambient Temp. (deg. F):	45.7500	51.1000	55.0000	61.2000	68.9500	76.5500	81.8500	80.2500	74.4500	65.2000	53.6000	45.4000
Ideal Gas Constant R (psia cuft / (lb-mol-deg R)):	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731
Liquid Bulk Temperature (deg. R):	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700
Tank Paint Solar Absorptance (Shell):	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700
Tank Paint Solar Absorptance (Roof):	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700
Daily Total Solar Insulation Factor (Btu/sqft day):	668.1706	1,022.2439	1,488.6308	1,992.7729	2,390.9467	2,566.7143	2,551.4853	2,279.5850	1,860.7886	1,369.9719	851.5527	592.3431
Vapor Space Expansion Factor												
Vapor Space Expansion Factor:	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Daily Vapor Temperature Range (deg. R):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Daily Vapor Pressure Range (psia):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Breather Vent Press. Setting Range(psia):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058
Vapor Pressure at Daily Minimum Liquid Surface Temperature (psia):	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058
Vapor Pressure at Daily Maximum Liquid Surface Temperature (psia):	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058
Daily Avg. Liquid Surface Temp. (deg R):	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700
Daily Min. Liquid Surface Temp. (deg R):	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700
Daily Max. Liquid Surface Temp. (deg R):	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700
Daily Ambient Temp. Range (deg. R):	16.7000	21.2000	23.2000	27.8000	30.5000	32.3000	33.5000	32.9000	31.3000	29.0000	22.2000	16.6000
Vented Vapor Saturation Factor												
Vented Vapor Saturation Factor:	0.9588	0.9588	0.9588	0.9588	0.9588	0.9588	0.9588	0.9588	0.9588	0.9588	0.9588	0.9588
Vapor Pressure at Daily Average Liquid: Surface Temperature (psia):	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058
Vapor Space Outage (ft):	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000	2.0000

Working Losses (lb):	76.4395	76.4395	76.4395	76.4395	76.4395	76.4395	76.4395	76.4395	76.4395	76.4395	76.4395	76.4395
Vapor Molecular Weight (lb/lb-mole):	27.1255	27.1255	27.1255	27.1255	27.1255	27.1255	27.1255	27.1255	27.1255	27.1255	27.1255	27.1255
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058
Net Throughput (gal/mo.):	291,666.6667	291,666.6667	291,666.6667	291,666.6667	291,666.6667	291,666.6667	291,666.6667	291,666.6667	291,666.6667	291,666.6667	291,666.6667	291,666.6667
Annual Turnovers:	10.0000	10.0000	10.0000	10.0000	10.0000	10.0000	10.0000	10.0000	10.0000	10.0000	10.0000	10.0000
Turnover Factor:	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Maximum Liquid Volume (gal):	350,000.0000	350,000.0000	350,000.0000	350,000.0000	350,000.0000	350,000.0000	350,000.0000	350,000.0000	350,000.0000	350,000.0000	350,000.0000	350,000.0000
Maximum Liquid Height (ft):	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000	39.0000
Tank Diameter (ft):	39.0830	39.0830	39.0830	39.0830	39.0830	39.0830	39.0830	39.0830	39.0830	39.0830	39.0830	39.0830
Working Loss Product Factor:	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total Losses (lb):	76.4395	76.4395	76.4395	76.4395	76.4395	76.4395	76.4395	76.4395	76.4395	76.4395	76.4395	76.4395

TANKS 4.0.9d
Emissions Report - Detail Format
Individual Tank Emission Totals

Emissions Report for: January, February, March, April, May, June, July, August, September, October, November, December

Livingston 8 350K Tanks 2014/2015 Annual - Vertical Fixed Roof Tank
Livingston, California

	Losses(lbs)		
Components	Working Loss	Breathing Loss	Total Emissions
Wine 15.0 % Vol Alcohol	917.27	0.00	917.27

TANKS 4.0.9d
Emissions Report - Detail Format
Tank Indentification and Physical Characteristics

Identification

User Identification:	Livingston 8 629,000 2014/2015 Annual
City:	Livingston
State:	California
Company:	E and J Gallo Winery
Type of Tank:	Vertical Fixed Roof Tank
Description:	Stainless Steel Wine Storage Tanks at Gallo Livingston. These will not be used for fermentation. 8 tanks will be built. This model run is for one only. Tank ID numbers 6201 through 6208.

Tank Dimensions

Shell Height (ft):		41.00
Diameter (ft):		51.00
Liquid Height (ft) :		41.00
Avg. Liquid Height (ft):		40.50
Volume (gallons):		629,000.00
Turnovers:		7.07
Net Throughput(gal/yr):		4,450,000.00
Is Tank Heated (y/n):	Y	

Paint Characteristics

Shell Color/Shade:	White/White
Shell Condition	Good
Roof Color/Shade:	White/White
Roof Condition:	Good

Roof Characteristics

Type:	Cone	
Height (ft)		3.00
Slope (ft/ft) (Cone Roof)		0.12

Breather Vent Settings

Vacuum Settings (psig):	0.00
Pressure Settings (psig)	0.00

Meterological Data used in Emissions Calculations: Fresno, California (Avg Atmospheric Pressure = 14.56 psia)

TANKS 4.0.9d
Emissions Report - Detail Format
Liquid Contents of Storage Tank

Livingston 8 629,000 2014/2015 Annual - Vertical Fixed Roof Tank
Livingston, California

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F) Avg.	Min.	Max.	Liquid Bulk Temp (deg F)	Vapor Pressure (psia) Avg.	Min.	Max.	Vapor Mol. Weight.	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Wine 15.0 % Vol Alcohol	Jan	63.30	63.30	63.30	63.30	0.4058	0.4058	0.4058	27.1255			19.46	Option 1: VP60 = .35513 VP70 = .50865
Wine 15.0 % Vol Alcohol	Feb	63.30	63.30	63.30	63.30	0.4058	0.4058	0.4058	27.1255			19.46	Option 1: VP60 = .35513 VP70 = .50865
Wine 15.0 % Vol Alcohol	Mar	63.30	63.30	63.30	63.30	0.4058	0.4058	0.4058	27.1255			19.46	Option 1: VP60 = .35513 VP70 = .50865
Wine 15.0 % Vol Alcohol	Apr	63.30	63.30	63.30	63.30	0.4058	0.4058	0.4058	27.1255			19.46	Option 1: VP60 = .35513 VP70 = .50865
Wine 15.0 % Vol Alcohol	May	63.30	63.30	63.30	63.30	0.4058	0.4058	0.4058	27.1255			19.46	Option 1: VP60 = .35513 VP70 = .50865
Wine 15.0 % Vol Alcohol	Jun	63.30	63.30	63.30	63.30	0.4058	0.4058	0.4058	27.1255			19.46	Option 1: VP60 = .35513 VP70 = .50865
Wine 15.0 % Vol Alcohol	Jul	63.30	63.30	63.30	63.30	0.4058	0.4058	0.4058	27.1255			19.46	Option 1: VP60 = .35513 VP70 = .50865
Wine 15.0 % Vol Alcohol	Aug	63.30	63.30	63.30	63.30	0.4058	0.4058	0.4058	27.1255			19.46	Option 1: VP60 = .35513 VP70 = .50865
Wine 15.0 % Vol Alcohol	Sep	63.30	63.30	63.30	63.30	0.4058	0.4058	0.4058	27.1255			19.46	Option 1: VP60 = .35513 VP70 = .50865
Wine 15.0 % Vol Alcohol	Oct	63.30	63.30	63.30	63.30	0.4058	0.4058	0.4058	27.1255			19.46	Option 1: VP60 = .35513 VP70 = .50865
Wine 15.0 % Vol Alcohol	Nov	63.30	63.30	63.30	63.30	0.4058	0.4058	0.4058	27.1255			19.46	Option 1: VP60 = .35513 VP70 = .50865
Wine 15.0 % Vol Alcohol	Dec	63.30	63.30	63.30	63.30	0.4058	0.4058	0.4058	27.1255			19.46	Option 1: VP60 = .35513 VP70 = .50865

TANKS 4.0.9d
Emissions Report - Detail Format
Detail Calculations (AP-42)

Livingston 8 629,000 2014/2015 Annual - Vertical Fixed Roof Tank
Livingston, California

Month:	January	February	March	April	May	June	July	August	September	October	November	December
Standing Losses (lb):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vapor Space Volume (cu ft):	3,064.2309	3,064.2309	3,064.2309	3,064.2309	3,064.2309	3,064.2309	3,064.2309	3,064.2309	3,064.2309	3,064.2309	3,064.2309	3,064.2309
Vapor Density (lb/cu ft):	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020
Vapor Space Expansion Factor:	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vented Vapor Saturation Factor:	0.9687	0.9687	0.9687	0.9687	0.9687	0.9687	0.9687	0.9687	0.9687	0.9687	0.9687	0.9687
Tank Vapor Space Volume:												
Vapor Space Volume (cu ft):	3,064.2309	3,064.2309	3,064.2309	3,064.2309	3,064.2309	3,064.2309	3,064.2309	3,064.2309	3,064.2309	3,064.2309	3,064.2309	3,064.2309
Tank Diameter (ft):	51.0000	51.0000	51.0000	51.0000	51.0000	51.0000	51.0000	51.0000	51.0000	51.0000	51.0000	51.0000
Vapor Space Outage (ft):	1.5000	1.5000	1.5000	1.5000	1.5000	1.5000	1.5000	1.5000	1.5000	1.5000	1.5000	1.5000
Tank Shell Height (ft):	41.0000	41.0000	41.0000	41.0000	41.0000	41.0000	41.0000	41.0000	41.0000	41.0000	41.0000	41.0000
Average Liquid Height (ft):	40.5000	40.5000	40.5000	40.5000	40.5000	40.5000	40.5000	40.5000	40.5000	40.5000	40.5000	40.5000
Roof Outage (ft):	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Roof Outage (Cone Roof)												
Roof Outage (ft):	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Roof Height (ft):	3.0000	3.0000	3.0000	3.0000	3.0000	3.0000	3.0000	3.0000	3.0000	3.0000	3.0000	3.0000
Roof Slope (ft/ft):	0.1200	0.1200	0.1200	0.1200	0.1200	0.1200	0.1200	0.1200	0.1200	0.1200	0.1200	0.1200
Shell Radius (ft):	25.5000	25.5000	25.5000	25.5000	25.5000	25.5000	25.5000	25.5000	25.5000	25.5000	25.5000	25.5000
Vapor Density												
Vapor Density (lb/cu ft):	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020
Vapor Molecular Weight (lb/lb-mole):	27.1255	27.1255	27.1255	27.1255	27.1255	27.1255	27.1255	27.1255	27.1255	27.1255	27.1255	27.1255
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058
Daily Avg. Liquid Surface Temp. (deg. R):	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700
Daily Average Ambient Temp. (deg. F):	45.7500	51.1000	55.0000	61.2000	68.9500	76.5500	81.8500	80.2500	74.4500	65.2000	53.6000	45.4000
Ideal Gas Constant R (psia cuft / (lb-mol-deg R)):	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731
Liquid Bulk Temperature (deg. R):	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700
Tank Paint Solar Absorptance (Shell):	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700
Tank Paint Solar Absorptance (Roof):	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700
Daily Total Solar Insulation Factor (Btu/sqft day):	668.1706	1,022.2439	1,488.6308	1,992.7729	2,390.9467	2,566.7143	2,551.4853	2,279.5850	1,860.7886	1,369.9719	851.5527	592.3431
Vapor Space Expansion Factor												
Vapor Space Expansion Factor:	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Daily Vapor Temperature Range (deg. R):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Daily Vapor Pressure Range (psia):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Breather Vent Press. Setting Range(psia):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058
Vapor Pressure at Daily Minimum Liquid Surface Temperature (psia):	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058
Vapor Pressure at Daily Maximum Liquid Surface Temperature (psia):	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058
Daily Avg. Liquid Surface Temp. (deg R):	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700
Daily Min. Liquid Surface Temp. (deg R):	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700
Daily Max. Liquid Surface Temp. (deg R):	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700	522.9700
Daily Ambient Temp. Range (deg. R):	16.7000	21.2000	23.2000	27.8000	30.5000	32.3000	33.5000	32.9000	31.3000	29.0000	22.2000	16.6000
Vented Vapor Saturation Factor												
Vented Vapor Saturation Factor:	0.9687	0.9687	0.9687	0.9687	0.9687	0.9687	0.9687	0.9687	0.9687	0.9687	0.9687	0.9687
Vapor Pressure at Daily Average Liquid: Surface Temperature (psia):	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058
Vapor Space Outage (ft):	1.5000	1.5000	1.5000	1.5000	1.5000	1.5000	1.5000	1.5000	1.5000	1.5000	1.5000	1.5000

Working Losses (lb):	97.1874	97.1874	97.1874	97.1874	97.1874	97.1874	97.1874	97.1874	97.1874	97.1874	97.1874	97.1874
Vapor Molecular Weight (lb/lb-mole):	27.1255	27.1255	27.1255	27.1255	27.1255	27.1255	27.1255	27.1255	27.1255	27.1255	27.1255	27.1255
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058	0.4058
Net Throughput (gal/mo.):	370,833.3333	370,833.3333	370,833.3333	370,833.3333	370,833.3333	370,833.3333	370,833.3333	370,833.3333	370,833.3333	370,833.3333	370,833.3333	370,833.3333
Annual Turnovers:	7.0747	7.0747	7.0747	7.0747	7.0747	7.0747	7.0747	7.0747	7.0747	7.0747	7.0747	7.0747
Turnover Factor:	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Maximum Liquid Volume (gal):	629,000.0000	629,000.0000	629,000.0000	629,000.0000	629,000.0000	629,000.0000	629,000.0000	629,000.0000	629,000.0000	629,000.0000	629,000.0000	629,000.0000
Maximum Liquid Height (ft):	41.0000	41.0000	41.0000	41.0000	41.0000	41.0000	41.0000	41.0000	41.0000	41.0000	41.0000	41.0000
Tank Diameter (ft):	51.0000	51.0000	51.0000	51.0000	51.0000	51.0000	51.0000	51.0000	51.0000	51.0000	51.0000	51.0000
Working Loss Product Factor:	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total Losses (lb):	97.1874	97.1874	97.1874	97.1874	97.1874	97.1874	97.1874	97.1874	97.1874	97.1874	97.1874	97.1874

TANKS 4.0.9d
Emissions Report - Detail Format
Individual Tank Emission Totals

Emissions Report for: January, February, March, April, May, June, July, August, September, October, November, December

Livingston 8 629,000 2014/2015 Annual - Vertical Fixed Roof Tank
Livingston, California

	Losses(lbs)		
Components	Working Loss	Breathing Loss	Total Emissions
Wine 15.0 % Vol Alcohol	1,166.25	0.00	1,166.25

Appendix B

Quarterly Net Emissions Change

The Quarterly Net Emissions Change is used to complete the emission profile screen for the District's PAS database. The QNEC shall be calculated as follows:

QNEC = PE2 - PE1, where:

QNEC = Quarterly Net Emissions Change for each emissions unit, lb/qtr.
PE2 = Post Project Potential to Emit for each emissions unit, lb/qtr.
PE1 = Pre-Project Potential to Emit for each emissions unit, lb/qtr.

Using the values in Sections VII.C.1 and VII.C.2 in the evaluation above, quarterly PE2 and quarterly PE1 can be calculated as follows:

$PE2_{quarterly}$ = $PE2_{annual}$ ÷ 4 quarters/year
= 101 lb/year ÷ 4 qtr/year
= 25.25 lb VOC/qtr

$PE1_{quarterly}$ = $PE1_{annual}$ ÷ 4 quarters/year
= 0 lb/year ÷ 4 qtr/year
= 0 lb VOC/qtr

Quarterly NEC [QNEC] for ATC N-1237-697 through -700			
	PE2 (lb/qtr)	PE1 (lb/qtr)	QNEC (lb/qtr)
NO_X	0	0	0
SO_X	0	0	0
PM_{10}	0	0	0
CO	0	0	0
VOC	25.25	0	25.25

Quarterly NEC [QNEC] for ATC N-1237-701 through -708			
	PE2 (lb/qtr)	PE1 (lb/qtr)	QNEC (lb/qtr)
NO_X	0	0	0
SO_X	0	0	0
PM_{10}	0	0	0
CO	0	0	0
VOC	126.5	0	126.5

Quarterly NEC [QNEC] for ATC N-1237-709 through -716			
	PE2 (lb/qtr)	PE1 (lb/qtr)	QNEC (lb/qtr)
NO_X	0	0	0
SO_X	0	0	0
PM_{10}	0	0	0
CO	0	0	0
VOC	160.75	0	160.75

Appendix C

BACT Guideline 5.4.13 and Top Down BACT Analysis

San Joaquin Valley
Unified Air Pollution Control District

Best Available Control Technology (BACT) Guideline 5.4.13*

Last Update 10/6/2009

Wine Storage Tank

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
VOC	1. Insulation or Equivalent**, Pressure Vacuum Relief Valve (PVRV) set within 10% of the maximum allowable working pressure of the tank; "gas-tight" tank operation; and continuous storage temperature not exceeding 75 degrees F, achieved within 60 days of completion of fermentation.	1. Capture of VOCs and thermal or catalytic oxidation or equivalent (98% control) 2. Capture of VOCs and carbon adsorption or equivalent (95% control) 3. Capture of VOCs and absorption or equivalent (90% control) 4. Capture of VOCs and condensation or equivalent (70% control)	

**Tanks made of heat-conducting materials such as stainless steel may be insulated or stored indoors (in a completely enclosed building, except for vents, doors and other essential openings) to limit exposure ot diurnal temperature variations. Tanks made entirely of non-conducting materials such as concrete and wood (except for fittings) are considered self-insulating.

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in s a state implementation plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

***This is a Summary Page for this Class of Source**

Top Down BACT Analysis for Wine Storage VOC Emissions

Step 1 - Identify All Possible Control Technologies

The SJVUAPCD BACT Clearinghouse guideline 5.4.13, 3rd quarter 2013, identifies achieved in practice BACT for wine storage tanks as follows:

1) Insulation or Equivalent**, Pressure Vacuum Relief Valve (PVRV) set within 10% of the maximum allowable working pressure of the tank; "gas-tight" tank operation; and continuous storage temperature not exceeding 75 degrees F, achieved within 60 days of completion of fermentation.
   ***Tanks made of heat-conducting materials such as stainless steel may be insulated or stored indoors (in a completely enclosed building, except for vents, doors and other essential openings) to limit exposure to diurnal temperature variations. Tanks made entirely of non-conducting materials such as concrete and wood (except for fittings) are considered self-insulating.*

The SJVUAPCD BACT Clearinghouse guideline 5.4.13, identifies technologically feasible BACT for wine storage tanks as follows:

2) Capture of VOCs and thermal or catalytic oxidation or equivalent (98% control)
3) Capture of VOCs and carbon adsorption or equivalent (95% control)
4) Capture of VOCs and absorption or equivalent (90% control)
5) Capture of VOCs and condensation or equivalent (70% control)

Step 2 - Eliminate Technologically Infeasible Options

None of the above listed technologies are technologically infeasible.

Step 3 - Rank Remaining Control Technologies by Control Effectiveness

Rank by Control Effectiveness		
Rank	Control	Overall Capture and Control Efficiency
1	Capture of VOCs and thermal or catalytic oxidation or equivalent	98%
2	Capture of VOCs and carbon adsorption or equivalent	95%
3	Capture of VOCs and absorption or equivalent	90%
4	Capture of VOCs and condensation or equivalent	70%
5	Insulation or Equivalent, Pressure Vacuum Relief Valve (PVRV) set within 10% of the maximum allowable working pressure of the tank; "gas-tight" tank operation; and continuous storage temperature not exceeding 75 degrees F, achieved within 60 days of completion of fermentation	Baseline (Achieved-in-Practice)

Step 4 - Cost Effectiveness Analysis

A cost-effective analysis is performed for each control technology which is more effective than meeting the requirements of District Rule 4694 plus tank insulation (achieved-in-practice BACT), as proposed by the facility.

Collection System Capital Investment (based on ductwork)

A common feature of all thermal or catalytic oxidation/carbon adsorption/absorption or condensation options is that they require installation of a collection system for delivering the VOCs from the tanks to the common control device.

Collection system to consist of:

- The collection system consists of stainless steel place ductwork (stainless steel is required due to food grade product status) with isolation valving, connecting 68 tanks to a common manifold system which ducts the combined vent to the common control device. The cost of dampers and isolation valving, installed in the ductwork, will be included in the cost estimate.
- A minimum duct size is established at six inches diameter at each tank to provide adequate strength for spanning between supports. The main header is twelve inches diameter to handle the potential for simultaneous venting.

Capital Cost Ductwork

Connection from tank to main duct = 20 tanks x 25 feet x $61.30/foot = $30,650
Unit installed cost for 6 inch butterfly valve = $2,125/valve x 20 valves x 2 systems = $85,000
Unit installed cost one foot removable spool = $500/tank x 20 tanks x 2 systems = $20,000
Knockout drums = $92,600 x 2 = $185,200
Duct support allowance = $5,000/tank x 20 tanks = $100,000

Total = $30,650 + $85,000 + $20,000 + $185,200 + $100,000 = $420,850

Ductwork	
Cost Description	Cost ($)
Duct Estimate from Eichleay Study 2005 Data	$420,850
Adjusting factor from 2005 dollars to 2013 dollars (2.75% inflation/year)	1.22
Inflation adjusted duct cost	$513,437
The following cost data is taken from EPA Control Cost Manual, Sixth Edition (EPA/452/B-02-001).	
Direct Costs (DC)	
Base Equipment Costs (Ductwork) See Above	$513,437
Instrumentation 10%	$51,344
Sales Tax 3%	$15,403
Freight 5%	$25,672

Purchased equipment cost	**$605,856**
Foundations & supports 8%	$48,468
Handling & erection 14%	$84,820
Electrical 4%	$24,234
Piping 2%	$12,117
Painting 1%	$6,059
Insulation 1%	$6,059
Direct installation costs	**$181,757**
Total Direct Costs	**$787,613**
Indirect Costs (IC)	
Engineering 10%	$60,586
Construction and field expenses 5%	$30,293
Contractor fees 10%	$60,586
Start-up 2%	$12,117
Performance test 1%	$6,059
Contingencies 3%	$18,176
Total Indirect Costs	**$187,817**
Total Capital Investment (TCI) (DC + IC)	**$975,430**

Capital Cost Clean-In-Place (CIP) System

A ducting system on a tank farm must have this system to maintain sanitation and quality of the product. The cost of operation of the CIP system has not been estimated. Operation of a CIP system, using typical cleaning agents, will raise disposal and wastewater treatment costs. Most likely, these costs will be significant.

Clean-In-Place (CIP) System	
Cost Description	Cost ($)
Current cost of CIP system	$200,000
The following cost data is taken from EPA Control Cost Manual, Sixth Edition (EPA/452/B-02-001).	
Direct Costs (DC)	
Base Equipment Costs (CIP System) See Above	$200,000
Instrumentation 10%	$20,000
Sales Tax 3%	$6,000
Freight 5%	$10,000
Purchased equipment cost	**$236,000**
Foundations & supports 8%	$18,880
Handling & erection 14%	$33,040
Electrical 4%	$9,440
Piping 2%	$4,720
Painting 1%	$2,360
Insulation 1%	$2,360

Direct installation costs	**$70,800**
Total Direct Costs	**$306,800**
Indirect Costs (IC)	
Engineering 10%	$23,600
Construction and field expenses 5%	$11,800
Contractor fees 10%	$23,600
Start-up 2%	$4,720
Performance test 1%	$2,360
Contingencies 3%	$7,080
Total Indirect Costs	**$73,160**
Total Capital Investment (TCI) (DC + IC)	**$379,960**

Annualized Capital Costs

Total capital costs = Ductwork + CIP System
= $975,430 + $379,960
= $1,355,390

Annualized Capital Investment = Initial Capital Investment x Amortization Factor

Amortization Factor = $\left[\frac{0.1(1.1)^{10}}{(1.1)^{10}-1}\right]$ = 0.163 per District policy, amortizing over 10 years at 10%

Therefore,

Annualized Capital Investment = $1,355,390 x 0.163 = $220,929

Capture of VOCs and condensation (> 70% collection & control)

Total Annual Cost

Total Annual Cost = Ductwork + CIP System
= $220,929

Emission Reductions

Annual Emission Reduction = Uncontrolled Emissions x 0.70
= 9,596 lb-VOC/year x 0.70
= 6,717 lb-VOC/year
= 3.4 tons-VOC/year

Cost Effectiveness

Cost Effectiveness = Total Annual Cost ÷ Annual Emission Reductions

Cost Effectiveness = $220,929/year ÷ 3.4 tons-VOC/year
= $64,979/ton-VOC

The analysis demonstrates that the annualized purchase cost of the required collection system ductwork equipment alone results in a cost effectiveness which exceeds the District's Guideline of $17,500/ton-VOC. Therefore this option is not cost-effective and will not be considered for this project.

Collection of VOCs and control by absorption (> 90% collection & control)

Total Annual Cost

Total Annual Cost = Ductwork + CIP System
= $220,929

Emission Reductions

Annual Emission Reduction = Uncontrolled Emissions x 0.90
= 9,596 lb-VOC/year x 0.90
= 8,636 lb-VOC/year
= 4.3 tons-VOC/year

Cost Effectiveness

Cost Effectiveness = Total Annual Cost ÷ Annual Emission Reductions

Cost Effectiveness = $220,929/year ÷ 4.3 tons-VOC/year
= $51,379/ton-VOC

The analysis demonstrates that the annualized purchase cost of the required collection system ductwork equipment alone results in a cost effectiveness which exceeds the District's Guideline of $17,500/ton-VOC. Therefore this option is not cost-effective and will not be considered for this project.

Collection of VOCs and control by carbon adsorption (> 95% collection and control)

Total Annual Cost

Total Annual Cost = Ductwork + CIP System
= $220,929

Emission Reductions

Annual Emission Reduction = Uncontrolled Emissions x 0.95
= 9,596 lb-VOC/year
= 4.8 tons-VOC/year

Cost Effectiveness

Cost Effectiveness = Total Annual Cost ÷ Annual Emission Reductions

Cost Effectiveness = $220,929/year ÷ 4.8 tons-VOC/year
= $46,027/ton-VOC

The analysis demonstrates that the annualized purchase cost of the required collection system ductwork equipment alone results in a cost effectiveness which exceeds the District's Guideline of $17,500/ton-VOC. Therefore this option is not cost-effective and will not be considered for this project.

Collection of VOCs and control by thermal or catalytic oxidation (> 98% collection & control)

The balanced chemical equation for combustion of ethanol is shown below.

$C_2H_5OH + 3O_2 \rightarrow 3H_2O + 2CO_2$

The RTO would be connected by ducts to the tanks themselves. If the tanks were to overfill and send liquid down the duct, damage to the RTO could occur. The presence of significant liquid in the knock out drum would cause a shut down of the RTO until the issue could be corrected. The ducting costs include a knock out drum allowance.

Total Annual Cost

Total Annual Cost = Ductwork + CIP System
= $220,929

Emission Reductions

Annual Emission Reduction = Uncontrolled Emissions x 0.98
= 9,596 lb-VOC/year x 0.98
= 9,404 lb-VOC/year
= 4.7 tons-VOC/year

Cost Effectiveness

Cost Effectiveness = Total Annual Cost ÷ Annual Emission Reductions

Cost Effectiveness = $220,929/year ÷ 4.7 tons-VOC/year
= $47,006/ton-VOC

The analysis demonstrates that the annualized purchase cost of the required collection system ductwork equipment alone results in a cost effectiveness which exceeds the District's Guideline of $17,500/ton-VOC. Therefore this option is not cost-effective and will not be considered for this project.

Step 5 - Select BACT

All identified feasible options with control efficiencies higher than the option proposed by the facility have been shown to not be cost effective. The facility has proposed Option 1, insulated tank, pressure/vacuum valve set within 10% of the maximum allowable working pressure of the tank, "gas tight" tank operation and achieve and maintain a continuous storage temperature not exceeding 75 °F within 60 days of completion of fermentation. These BACT requirements will be listed on the permits as enforceable conditions.

Appendix D

Compliance Certification

N-1237
E&J Gallo Winery-Livingston
Compliance Certification Statement
For Federal Major Permit Modifications
Compliance with District Rule 2201, Section 4.15.2

"I certify under penalty of law that all major stationary sources (Title V facilities) operated under my control in California are compliant with all applicable air emissions limitations and standards. The facilities included in this certification statement include the E&J Gallo Winery-Fresno, the E&J Gallo Winery-Livingston, and the E&J Gallo Winery-Modesto."

Mr. Steve Kidd
Vice President of Operations

09/06/13
Date

Appendix E

Draft ATCs

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: N-1237-697-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
35,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 363) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT

CONDITIONS

1. {1829} The facility shall submit an application to modify the Title V permit in accordance with the timeframes and procedures of District Rule 2520. [District Rule 2520] Federally Enforceable Through Title V Permit
2. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantities of emissions: 1st quarter - 25 lb, 2nd quarter - 25 lb, 3rd quarter - 25 lb, and fourth quarter - 26 lb. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201]
3. ERC Certificate Numbers S-4025-1, S-4050-1, S-3807-1, and S-3805-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]
4. The nominal tank dimensions are 12.08 feet in diameter and 40 feet in height with a proposed volume of 35,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201]
5. This wine storage tank shall be used exclusively for wine storage operations only and not for fermentation. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DRAFT

DAVID WARNER, Director of Permit Services
N-1237-697-0 : Nov 7 2013 3:02PM – SWANEYJ : Joint Inspection NOT Required

6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694]
8. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694]
9. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rule 4694]
10. The weighted annual average ethanol content of wine stored in this tank, calculated on a twelve month rolling basis, shall not exceed 15 percent by volume. [District Rule 2201]
11. The maximum wine storage throughput in this tank shall not exceed 35,000 gallons per day. [District Rule 2201]
12. The maximum wine storage throughput in this tank, calculated on a twelve month rolling basis, shall not exceed 700,000 gallons per year. [District Rule 2201]
13. The operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694]
14. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201]
15. The operator shall maintain records of the calculated 12 month rolling wine ethanol content and storage throughput rate (ethanol percentage by volume and gallons per 12 month rolling period, calculated monthly). [District Rule 2201]
16. If the throughput or ethanol content calculated for any rolling 12-month period exceeds the annual throughput or ethanol content limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput or ethanol content limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput and ethanol content are below the annual throughput and ethanol content limitations. [District Rule 2201]
17. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201]
18. 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, 2201 and 4694]

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: N-1237-698-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
35,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 364) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT

CONDITIONS

1. {1829} The facility shall submit an application to modify the Title V permit in accordance with the timeframes and procedures of District Rule 2520. [District Rule 2520] Federally Enforceable Through Title V Permit
2. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantities of emissions: 1st quarter - 25 lb, 2nd quarter - 25 lb, 3rd quarter - 25 lb, and fourth quarter - 26 lb. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201]
3. ERC Certificate Numbers S-4025-1, S-4050-1, S-3807-1, and S-3805-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]
4. The nominal tank dimensions are 12.08 feet in diameter and 40 feet in height with a proposed volume of 35,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201]
5. This wine storage tank shall be used exclusively for wine storage operations only and not for fermentation. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DRAFT

DAVID WARNER, Director of Permit Services
N-1237-698-0 : Nov 7 2013 3:02PM -- SWANEYJ : Joint Inspection NOT Required

6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694]
8. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694]
9. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rule 4694]
10. The weighted annual average ethanol content of wine stored in this tank, calculated on a twelve month rolling basis, shall not exceed 15 percent by volume. [District Rule 2201]
11. The maximum wine storage throughput in this tank shall not exceed 35,000 gallons per day. [District Rule 2201]
12. The maximum wine storage throughput in this tank, calculated on a twelve month rolling basis, shall not exceed 700,000 gallons per year. [District Rule 2201]
13. The operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694]
14. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201]
15. The operator shall maintain records of the calculated 12 month rolling wine ethanol content and storage throughput rate (ethanol percentage by volume and gallons per 12 month rolling period, calculated monthly). [District Rule 2201]
16. If the throughput or ethanol content calculated for any rolling 12-month period exceeds the annual throughput or ethanol content limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput or ethanol content limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput and ethanol content are below the annual throughput and ethanol content limitations. [District Rule 2201]
17. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201]
18. 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, 2201 and 4694]

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: N-1237-699-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
35,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 365) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT

CONDITIONS

1. {1829} The facility shall submit an application to modify the Title V permit in accordance with the timeframes and procedures of District Rule 2520. [District Rule 2520] Federally Enforceable Through Title V Permit
2. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantities of emissions: 1st quarter - 25 lb, 2nd quarter - 25 lb, 3rd quarter - 25 lb, and fourth quarter - 26 lb. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201]
3. ERC Certificate Numbers S-4025-1, S-4050-1, S-3807-1, and S-3805-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]
4. The nominal tank dimensions are 12.08 feet in diameter and 40 feet in height with a proposed volume of 35,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201]
5. This wine storage tank shall be used exclusively for wine storage operations only and not for fermentation. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DRAFT

DAVID WARNER, Director of Permit Services
N-1237-699-0 : Nov 7 2013 3:02PM – SWANEYJ : Joint Inspection NOT Required

6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694]
8. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694]
9. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rule 4694]
10. The weighted annual average ethanol content of wine stored in this tank, calculated on a twelve month rolling basis, shall not exceed 15 percent by volume. [District Rule 2201]
11. The maximum wine storage throughput in this tank shall not exceed 35,000 gallons per day. [District Rule 2201]
12. The maximum wine storage throughput in this tank, calculated on a twelve month rolling basis, shall not exceed 700,000 gallons per year. [District Rule 2201]
13. The operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694]
14. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201]
15. The operator shall maintain records of the calculated 12 month rolling wine ethanol content and storage throughput rate (ethanol percentage by volume and gallons per 12 month rolling period, calculated monthly). [District Rule 2201]
16. If the throughput or ethanol content calculated for any rolling 12-month period exceeds the annual throughput or ethanol content limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput or ethanol content limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput and ethanol content are below the annual throughput and ethanol content limitations. [District Rule 2201]
17. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201]
18. 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, 2201 and 4694]

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: N-1237-700-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
35,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 366) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT

CONDITIONS

1. {1829} The facility shall submit an application to modify the Title V permit in accordance with the timeframes and procedures of District Rule 2520. [District Rule 2520] Federally Enforceable Through Title V Permit
2. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantities of emissions: 1st quarter - 25 lb, 2nd quarter - 25 lb, 3rd quarter - 25 lb, and fourth quarter - 26 lb. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201]
3. ERC Certificate Numbers S-4025-1, S-4050-1, S-3807-1, and S-3805-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]
4. The nominal tank dimensions are 12.08 feet in diameter and 40 feet in height with a proposed volume of 35,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201]
5. This wine storage tank shall be used exclusively for wine storage operations only and not for fermentation. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DRAFT

DAVID WARNER, Director of Permit Services
N-1237-700-0 : Nov 7 2013 3:02PM -- SWANEYJ : Joint Inspection NOT Required

6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694]
8. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694]
9. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rule 4694]
10. The weighted annual average ethanol content of wine stored in this tank, calculated on a twelve month rolling basis, shall not exceed 15 percent by volume. [District Rule 2201]
11. The maximum wine storage throughput in this tank shall not exceed 35,000 gallons per day. [District Rule 2201]
12. The maximum wine storage throughput in this tank, calculated on a twelve month rolling basis, shall not exceed 700,000 gallons per year. [District Rule 2201]
13. The operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694]
14. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201]
15. The operator shall maintain records of the calculated 12 month rolling wine ethanol content and storage throughput rate (ethanol percentage by volume and gallons per 12 month rolling period, calculated monthly). [District Rule 2201]
16. If the throughput or ethanol content calculated for any rolling 12-month period exceeds the annual throughput or ethanol content limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput or ethanol content limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput and ethanol content are below the annual throughput and ethanol content limitations. [District Rule 2201]
17. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201]
18. 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, 2201 and 4694]

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: N-1237-701-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
350,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 3217) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT

CONDITIONS

1. {1829} The facility shall submit an application to modify the Title V permit in accordance with the timeframes and procedures of District Rule 2520. [District Rule 2520] Federally Enforceable Through Title V Permit
2. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantities of emissions: 1st quarter - 126 lb, 2nd quarter - 126 lb, 3rd quarter - 126 lb, and fourth quarter - 127 lb. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201]
3. ERC Certificate Numbers S-4025-1, S-4050-1, S-3807-1, and S-3805-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]
4. The nominal tank dimensions are 39.08 feet in diameter and 40 feet in height with a proposed volume of 350,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201]
5. This wine storage tank shall be used exclusively for wine storage operations only and not for fermentation. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DRAFT

DAVID WARNER, Director of Permit Services
N-1237-701-0 : Nov 7 2013 3:02PM -- SWANEYJ : Joint Inspection NOT Required

6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694]
8. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694]
9. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rule 4694]
10. The weighted annual average ethanol content of wine stored in this tank, calculated on a twelve month rolling basis, shall not exceed 15 percent by volume. [District Rule 2201]
11. The maximum wine storage throughput in this tank shall not exceed 350,000 gallons per day. [District Rule 2201]
12. The maximum wine storage throughput in this tank, calculated on a twelve month rolling basis, shall not exceed 3,500,000 gallons per year. [District Rule 2201]
13. The operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694]
14. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201]
15. The operator shall maintain records of the calculated 12 month rolling wine ethanol content and storage throughput rate (ethanol percentage by volume and gallons per 12 month rolling period, calculated monthly). [District Rule 2201]
16. If the throughput or ethanol content calculated for any rolling 12-month period exceeds the annual throughput or ethanol content limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput or ethanol content limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput and ethanol content are below the annual throughput and ethanol content limitations. [District Rule 2201]
17. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201]
18. 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, 2201 and 4694]

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: N-1237-702-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
350,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 3218) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT

CONDITIONS

1. {1829} The facility shall submit an application to modify the Title V permit in accordance with the timeframes and procedures of District Rule 2520. [District Rule 2520] Federally Enforceable Through Title V Permit
2. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantities of emissions: 1st quarter - 126 lb, 2nd quarter - 126 lb, 3rd quarter - 126 lb, and fourth quarter - 127 lb. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201]
3. ERC Certificate Numbers S-4025-1, S-4050-1, S-3807-1, and S-3805-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]
4. The nominal tank dimensions are 39.08 feet in diameter and 40 feet in height with a proposed volume of 350,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201]
5. This wine storage tank shall be used exclusively for wine storage operations only and not for fermentation. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DRAFT

DAVID WARNER, Director of Permit Services
N-1237-702-0: Nov 7 2013 3:02PM -- SWANEYJ : Joint Inspection NOT Required

6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694]
8. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694]
9. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rule 4694]
10. The weighted annual average ethanol content of wine stored in this tank, calculated on a twelve month rolling basis, shall not exceed 15 percent by volume. [District Rule 2201]
11. The maximum wine storage throughput in this tank shall not exceed 350,000 gallons per day. [District Rule 2201]
12. The maximum wine storage throughput in this tank, calculated on a twelve month rolling basis, shall not exceed 3,500,000 gallons per year. [District Rule 2201]
13. The operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694]
14. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201]
15. The operator shall maintain records of the calculated 12 month rolling wine ethanol content and storage throughput rate (ethanol percentage by volume and gallons per 12 month rolling period, calculated monthly). [District Rule 2201]
16. If the throughput or ethanol content calculated for any rolling 12-month period exceeds the annual throughput or ethanol content limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput or ethanol content limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput and ethanol content are below the annual throughput and ethanol content limitations. [District Rule 2201]
17. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201]
18. 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, 2201 and 4694]

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: N-1237-703-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
350,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 3219) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT

CONDITIONS

1. {1829} The facility shall submit an application to modify the Title V permit in accordance with the timeframes and procedures of District Rule 2520. [District Rule 2520] Federally Enforceable Through Title V Permit
2. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantities of emissions: 1st quarter - 126 lb, 2nd quarter - 126 lb, 3rd quarter - 126 lb, and fourth quarter - 127 lb. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201]
3. ERC Certificate Numbers S-4025-1, S-4050-1, S-3807-1, and S-3805-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]
4. The nominal tank dimensions are 39.08 feet in diameter and 40 feet in height with a proposed volume of 350,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201]
5. This wine storage tank shall be used exclusively for wine storage operations only and not for fermentation. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services
N-1237-703-0 : Nov 7 2013 3:02PM – SWANEYJ : Joint Inspection NOT Required

6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694]
8. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694]
9. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rule 4694]
10. The weighted annual average ethanol content of wine stored in this tank, calculated on a twelve month rolling basis, shall not exceed 15 percent by volume. [District Rule 2201]
11. The maximum wine storage throughput in this tank shall not exceed 350,000 gallons per day. [District Rule 2201]
12. The maximum wine storage throughput in this tank, calculated on a twelve month rolling basis, shall not exceed 3,500,000 gallons per year. [District Rule 2201]
13. The operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694]
14. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201]
15. The operator shall maintain records of the calculated 12 month rolling wine ethanol content and storage throughput rate (ethanol percentage by volume and gallons per 12 month rolling period, calculated monthly). [District Rule 2201]
16. If the throughput or ethanol content calculated for any rolling 12-month period exceeds the annual throughput or ethanol content limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput or ethanol content limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput and ethanol content are below the annual throughput and ethanol content limitations. [District Rule 2201]
17. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201]
18. 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, 2201 and 4694]

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: N-1237-704-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
350,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 3220) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT

CONDITIONS

1. {1829} The facility shall submit an application to modify the Title V permit in accordance with the timeframes and procedures of District Rule 2520. [District Rule 2520] Federally Enforceable Through Title V Permit
2. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantities of emissions: 1st quarter - 126 lb, 2nd quarter - 126 lb, 3rd quarter - 126 lb, and fourth quarter - 127 lb. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201]
3. ERC Certificate Numbers S-4025-1, S-4050-1, S-3807-1, and S-3805-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]
4. The nominal tank dimensions are 39.08 feet in diameter and 40 feet in height with a proposed volume of 350,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201]
5. This wine storage tank shall be used exclusively for wine storage operations only and not for fermentation. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services
N-1237-704-0 : Nov 7 2013 3:02PM – SWANEYJ : Joint Inspection NOT Required

6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694]
8. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694]
9. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rule 4694]
10. The weighted annual average ethanol content of wine stored in this tank, calculated on a twelve month rolling basis, shall not exceed 15 percent by volume. [District Rule 2201]
11. The maximum wine storage throughput in this tank shall not exceed 350,000 gallons per day. [District Rule 2201]
12. The maximum wine storage throughput in this tank, calculated on a twelve month rolling basis, shall not exceed 3,500,000 gallons per year. [District Rule 2201]
13. The operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694]
14. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201]
15. The operator shall maintain records of the calculated 12 month rolling wine ethanol content and storage throughput rate (ethanol percentage by volume and gallons per 12 month rolling period, calculated monthly). [District Rule 2201]
16. If the throughput or ethanol content calculated for any rolling 12-month period exceeds the annual throughput or ethanol content limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput or ethanol content limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput and ethanol content are below the annual throughput and ethanol content limitations. [District Rule 2201]
17. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201]
18. 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, 2201 and 4694]

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: N-1237-705-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
350,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 3221) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT

CONDITIONS

1. {1829} The facility shall submit an application to modify the Title V permit in accordance with the timeframes and procedures of District Rule 2520. [District Rule 2520] Federally Enforceable Through Title V Permit
2. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantities of emissions: 1st quarter - 126 lb, 2nd quarter - 126 lb, 3rd quarter - 126 lb, and fourth quarter - 127 lb. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201]
3. ERC Certificate Numbers S-4025-1, S-4050-1, S-3807-1, and S-3805-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]
4. The nominal tank dimensions are 39.08 feet in diameter and 40 feet in height with a proposed volume of 350,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201]
5. This wine storage tank shall be used exclusively for wine storage operations only and not for fermentation. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services
N-1237-705-0 : Nov 7 2013 3:02PM -- SWANEYJ : Joint Inspection NOT Required

6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694]
8. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694]
9. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rule 4694]
10. The weighted annual average ethanol content of wine stored in this tank, calculated on a twelve month rolling basis, shall not exceed 15 percent by volume. [District Rule 2201]
11. The maximum wine storage throughput in this tank shall not exceed 350,000 gallons per day. [District Rule 2201]
12. The maximum wine storage throughput in this tank, calculated on a twelve month rolling basis, shall not exceed 3,500,000 gallons per year. [District Rule 2201]
13. The operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694]
14. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201]
15. The operator shall maintain records of the calculated 12 month rolling wine ethanol content and storage throughput rate (ethanol percentage by volume and gallons per 12 month rolling period, calculated monthly). [District Rule 2201]
16. If the throughput or ethanol content calculated for any rolling 12-month period exceeds the annual throughput or ethanol content limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput or ethanol content limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput and ethanol content are below the annual throughput and ethanol content limitations. [District Rule 2201]
17. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201]
18. 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, 2201 and 4694]

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: N-1237-706-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
350,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 3222) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT

CONDITIONS

1. {1829} The facility shall submit an application to modify the Title V permit in accordance with the timeframes and procedures of District Rule 2520. [District Rule 2520] Federally Enforceable Through Title V Permit
2. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantities of emissions: 1st quarter - 126 lb, 2nd quarter - 126 lb, 3rd quarter - 126 lb, and fourth quarter - 127 lb. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201]
3. ERC Certificate Numbers S-4025-1, S-4050-1, S-3807-1, and S-3805-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]
4. The nominal tank dimensions are 39.08 feet in diameter and 40 feet in height with a proposed volume of 350,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201]
5. This wine storage tank shall be used exclusively for wine storage operations only and not for fermentation. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DRAFT

DAVID WARNER, Director of Permit Services
N-1237-706-0 : Nov 7 2013 3:02PM – SWANEYJ : Joint Inspection NOT Required

6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694]
8. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694]
9. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rule 4694]
10. The weighted annual average ethanol content of wine stored in this tank, calculated on a twelve month rolling basis, shall not exceed 15 percent by volume. [District Rule 2201]
11. The maximum wine storage throughput in this tank shall not exceed 350,000 gallons per day. [District Rule 2201]
12. The maximum wine storage throughput in this tank, calculated on a twelve month rolling basis, shall not exceed 3,500,000 gallons per year. [District Rule 2201]
13. The operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694]
14. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201]
15. The operator shall maintain records of the calculated 12 month rolling wine ethanol content and storage throughput rate (ethanol percentage by volume and gallons per 12 month rolling period, calculated monthly). [District Rule 2201]
16. If the throughput or ethanol content calculated for any rolling 12-month period exceeds the annual throughput or ethanol content limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput or ethanol content limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput and ethanol content are below the annual throughput and ethanol content limitations. [District Rule 2201]
17. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201]
18. 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, 2201 and 4694]

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: N-1237-707-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
350,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 3223) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT

CONDITIONS

1. {1829} The facility shall submit an application to modify the Title V permit in accordance with the timeframes and procedures of District Rule 2520. [District Rule 2520] Federally Enforceable Through Title V Permit
2. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantities of emissions: 1st quarter - 126 lb, 2nd quarter - 126 lb, 3rd quarter - 126 lb, and fourth quarter - 127 lb. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201]
3. ERC Certificate Numbers S-4025-1, S-4050-1, S-3807-1, and S-3805-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]
4. The nominal tank dimensions are 39.08 feet in diameter and 40 feet in height with a proposed volume of 350,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201]
5. This wine storage tank shall be used exclusively for wine storage operations only and not for fermentation. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DRAFT

DAVID WARNER, Director of Permit Services
N-1237-707-0 : Nov 7 2013 3:02PM – SWANEYJ : Joint Inspection NOT Required

6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694]
8. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694]
9. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rule 4694]
10. The weighted annual average ethanol content of wine stored in this tank, calculated on a twelve month rolling basis, shall not exceed 15 percent by volume. [District Rule 2201]
11. The maximum wine storage throughput in this tank shall not exceed 350,000 gallons per day. [District Rule 2201]
12. The maximum wine storage throughput in this tank, calculated on a twelve month rolling basis, shall not exceed 3,500,000 gallons per year. [District Rule 2201]
13. The operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694]
14. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201]
15. The operator shall maintain records of the calculated 12 month rolling wine ethanol content and storage throughput rate (ethanol percentage by volume and gallons per 12 month rolling period, calculated monthly). [District Rule 2201]
16. If the throughput or ethanol content calculated for any rolling 12-month period exceeds the annual throughput or ethanol content limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput or ethanol content limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput and ethanol content are below the annual throughput and ethanol content limitations. [District Rule 2201]
17. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201]
18. 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, 2201 and 4694]

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: N-1237-708-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
350,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 3224) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT

CONDITIONS

1. {1829} The facility shall submit an application to modify the Title V permit in accordance with the timeframes and procedures of District Rule 2520. [District Rule 2520] Federally Enforceable Through Title V Permit
2. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantities of emissions: 1st quarter - 126 lb, 2nd quarter - 126 lb, 3rd quarter - 126 lb, and fourth quarter - 127 lb. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201]
3. ERC Certificate Numbers S-4025-1, S-4050-1, S-3807-1, and S-3805-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]
4. The nominal tank dimensions are 39.08 feet in diameter and 40 feet in height with a proposed volume of 350,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201]
5. This wine storage tank shall be used exclusively for wine storage operations only and not for fermentation. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services
N-1237-708-0 : Nov 7 2013 3:02PM – SWANEYJ : Joint Inspection NOT Required

6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694]
8. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694]
9. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rule 4694]
10. The weighted annual average ethanol content of wine stored in this tank, calculated on a twelve month rolling basis, shall not exceed 15 percent by volume. [District Rule 2201]
11. The maximum wine storage throughput in this tank shall not exceed 350,000 gallons per day. [District Rule 2201]
12. The maximum wine storage throughput in this tank, calculated on a twelve month rolling basis, shall not exceed 3,500,000 gallons per year. [District Rule 2201]
13. The operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694]
14. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201]
15. The operator shall maintain records of the calculated 12 month rolling wine ethanol content and storage throughput rate (ethanol percentage by volume and gallons per 12 month rolling period, calculated monthly). [District Rule 2201]
16. If the throughput or ethanol content calculated for any rolling 12-month period exceeds the annual throughput or ethanol content limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput or ethanol content limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput and ethanol content are below the annual throughput and ethanol content limitations. [District Rule 2201]
17. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201]
18. 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, 2201 and 4694]

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: N-1237-709-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
629,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 6201) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT

CONDITIONS

1. {1829} The facility shall submit an application to modify the Title V permit in accordance with the timeframes and procedures of District Rule 2520. [District Rule 2520] Federally Enforceable Through Title V Permit
2. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantities of emissions: 1st quarter - 160 lb, 2nd quarter - 161 lb, 3rd quarter - 161 lb, and fourth quarter - 161 lb. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201]
3. ERC Certificate Numbers S-4025-1, S-4050-1, S-3807-1, and S-3805-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]
4. The nominal tank dimensions are 51 feet in diameter and 41 feet in height with a proposed volume of 629,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201]
5. This wine storage tank shall be used exclusively for wine storage operations only and not for fermentation. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DRAFT

DAVID WARNER, Director of Permit Services
N-1237-709-0 : Nov 7 2013 3:02PM -- SWANEYJ : Joint Inspection NOT Required

6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694]
8. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694]
9. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rule 4694]
10. The weighted annual average ethanol content of wine stored in this tank, calculated on a twelve month rolling basis, shall not exceed 15 percent by volume. [District Rule 2201]
11. The maximum wine storage throughput in this tank shall not exceed 629,000 gallons per day. [District Rule 2201]
12. The maximum wine storage throughput in this tank, calculated on a twelve month rolling basis, shall not exceed 4,450,000 gallons per year. [District Rule 2201]
13. The operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694]
14. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201]
15. The operator shall maintain records of the calculated 12 month rolling wine ethanol content and storage throughput rate (ethanol percentage by volume and gallons per 12 month rolling period, calculated monthly). [District Rule 2201]
16. If the throughput or ethanol content calculated for any rolling 12-month period exceeds the annual throughput or ethanol content limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput or ethanol content limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput and ethanol content are below the annual throughput and ethanol content limitations. [District Rule 2201]
17. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201]
18. 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, 2201 and 4694]

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: N-1237-710-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
629,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 6202) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT

CONDITIONS

1. {1829} The facility shall submit an application to modify the Title V permit in accordance with the timeframes and procedures of District Rule 2520. [District Rule 2520] Federally Enforceable Through Title V Permit
2. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantities of emissions: 1st quarter - 160 lb, 2nd quarter - 161 lb, 3rd quarter - 161 lb, and fourth quarter - 161 lb. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201]
3. ERC Certificate Numbers S-4025-1, S-4050-1, S-3807-1, and S-3805-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]
4. The nominal tank dimensions are 51 feet in diameter and 41 feet in height with a proposed volume of 629,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201]
5. This wine storage tank shall be used exclusively for wine storage operations only and not for fermentation. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services
N-1237-710-0 : Nov 7 2013 3:02PM -- SWANEYJ : Joint Inspection NOT Required

6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694]
8. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694]
9. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rule 4694]
10. The weighted annual average ethanol content of wine stored in this tank, calculated on a twelve month rolling basis, shall not exceed 15 percent by volume. [District Rule 2201]
11. The maximum wine storage throughput in this tank shall not exceed 629,000 gallons per day. [District Rule 2201]
12. The maximum wine storage throughput in this tank, calculated on a twelve month rolling basis, shall not exceed 4,450,000 gallons per year. [District Rule 2201]
13. The operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694]
14. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201]
15. The operator shall maintain records of the calculated 12 month rolling wine ethanol content and storage throughput rate (ethanol percentage by volume and gallons per 12 month rolling period, calculated monthly). [District Rule 2201]
16. If the throughput or ethanol content calculated for any rolling 12-month period exceeds the annual throughput or ethanol content limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput or ethanol content limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput and ethanol content are below the annual throughput and ethanol content limitations. [District Rule 2201]
17. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201]
18. 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, 2201 and 4694]

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: N-1237-711-0

ISSUANCE DATE: DRAFT

DRAFT

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
629,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 6203) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT

CONDITIONS

1. {1829} The facility shall submit an application to modify the Title V permit in accordance with the timeframes and procedures of District Rule 2520. [District Rule 2520] Federally Enforceable Through Title V Permit
2. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantities of emissions: 1st quarter - 160 lb, 2nd quarter - 161 lb, 3rd quarter - 161 lb, and fourth quarter - 161 lb. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201]
3. ERC Certificate Numbers S-4025-1, S-4050-1, S-3807-1, and S-3805-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]
4. The nominal tank dimensions are 51 feet in diameter and 41 feet in height with a proposed volume of 629,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201]
5. This wine storage tank shall be used exclusively for wine storage operations only and not for fermentation. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DRAFT

DAVID WARNER, Director of Permit Services
N-1237-711-0 : Nov 7 2013 3:02PM -- SWANEYJ : Joint Inspection NOT Required

6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694]
8. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694]
9. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rule 4694]
10. The weighted annual average ethanol content of wine stored in this tank, calculated on a twelve month rolling basis, shall not exceed 15 percent by volume. [District Rule 2201]
11. The maximum wine storage throughput in this tank shall not exceed 629,000 gallons per day. [District Rule 2201]
12. The maximum wine storage throughput in this tank, calculated on a twelve month rolling basis, shall not exceed 4,450,000 gallons per year. [District Rule 2201]
13. The operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694]
14. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201]
15. The operator shall maintain records of the calculated 12 month rolling wine ethanol content and storage throughput rate (ethanol percentage by volume and gallons per 12 month rolling period, calculated monthly). [District Rule 2201]
16. If the throughput or ethanol content calculated for any rolling 12-month period exceeds the annual throughput or ethanol content limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput or ethanol content limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput and ethanol content are below the annual throughput and ethanol content limitations. [District Rule 2201]
17. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201]
18. 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, 2201 and 4694]

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: N-1237-712-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
629,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 6204) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT

CONDITIONS

1. {1829} The facility shall submit an application to modify the Title V permit in accordance with the timeframes and procedures of District Rule 2520. [District Rule 2520] Federally Enforceable Through Title V Permit
2. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantities of emissions: 1st quarter - 160 lb, 2nd quarter - 161 lb, 3rd quarter - 161 lb, and fourth quarter - 161 lb. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201]
3. ERC Certificate Numbers S-4025-1, S-4050-1, S-3807-1, and S-3805-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]
4. The nominal tank dimensions are 51 feet in diameter and 41 feet in height with a proposed volume of 629,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201]
5. This wine storage tank shall be used exclusively for wine storage operations only and not for fermentation. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services
N-1237-712-0 : Nov 7 2013 3:02PM – SWANEYJ : Joint Inspection NOT Required

6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694]
8. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694]
9. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rule 4694]
10. The weighted annual average ethanol content of wine stored in this tank, calculated on a twelve month rolling basis, shall not exceed 15 percent by volume. [District Rule 2201]
11. The maximum wine storage throughput in this tank shall not exceed 629,000 gallons per day. [District Rule 2201]
12. The maximum wine storage throughput in this tank, calculated on a twelve month rolling basis, shall not exceed 4,450,000 gallons per year. [District Rule 2201]
13. The operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694]
14. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201]
15. The operator shall maintain records of the calculated 12 month rolling wine ethanol content and storage throughput rate (ethanol percentage by volume and gallons per 12 month rolling period, calculated monthly). [District Rule 2201]
16. If the throughput or ethanol content calculated for any rolling 12-month period exceeds the annual throughput or ethanol content limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput or ethanol content limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput and ethanol content are below the annual throughput and ethanol content limitations. [District Rule 2201]
17. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201]
18. 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, 2201 and 4694]

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: N-1237-713-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
629,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 6205) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT

CONDITIONS

1. {1829} The facility shall submit an application to modify the Title V permit in accordance with the timeframes and procedures of District Rule 2520. [District Rule 2520] Federally Enforceable Through Title V Permit
2. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantities of emissions: 1st quarter - 160 lb, 2nd quarter - 161 lb, 3rd quarter - 161 lb, and fourth quarter - 161 lb. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201]
3. ERC Certificate Numbers S-4025-1, S-4050-1, S-3807-1, and S-3805-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]
4. The nominal tank dimensions are 51 feet in diameter and 41 feet in height with a proposed volume of 629,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201]
5. This wine storage tank shall be used exclusively for wine storage operations only and not for fermentation. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services
N-1237-713-0 : Nov 7 2013 3:02PM – SWANEYJ : Joint Inspection NOT Required

6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694]
8. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694]
9. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rule 4694]
10. The weighted annual average ethanol content of wine stored in this tank, calculated on a twelve month rolling basis, shall not exceed 15 percent by volume. [District Rule 2201]
11. The maximum wine storage throughput in this tank shall not exceed 629,000 gallons per day. [District Rule 2201]
12. The maximum wine storage throughput in this tank, calculated on a twelve month rolling basis, shall not exceed 4,450,000 gallons per year. [District Rule 2201]
13. The operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694]
14. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201]
15. The operator shall maintain records of the calculated 12 month rolling wine ethanol content and storage throughput rate (ethanol percentage by volume and gallons per 12 month rolling period, calculated monthly). [District Rule 2201]
16. If the throughput or ethanol content calculated for any rolling 12-month period exceeds the annual throughput or ethanol content limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput or ethanol content limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput and ethanol content are below the annual throughput and ethanol content limitations. [District Rule 2201]
17. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201]
18. 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, 2201 and 4694]

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: N-1237-714-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
629,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 6206) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT

CONDITIONS

1. {1829} The facility shall submit an application to modify the Title V permit in accordance with the timeframes and procedures of District Rule 2520. [District Rule 2520] Federally Enforceable Through Title V Permit
2. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantities of emissions: 1st quarter - 160 lb, 2nd quarter - 161 lb, 3rd quarter - 161 lb, and fourth quarter - 161 lb. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201]
3. ERC Certificate Numbers S-4025-1, S-4050-1, S-3807-1, and S-3805-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]
4. The nominal tank dimensions are 51 feet in diameter and 41 feet in height with a proposed volume of 629,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201]
5. This wine storage tank shall be used exclusively for wine storage operations only and not for fermentation. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DRAFT

DAVID WARNER, Director of Permit Services
N-1237-714-0 : Nov 7 2013 3:02PM – SWANEYJ : Joint Inspection NOT Required

6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694]
8. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694]
9. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rule 4694]
10. The weighted annual average ethanol content of wine stored in this tank, calculated on a twelve month rolling basis, shall not exceed 15 percent by volume. [District Rule 2201]
11. The maximum wine storage throughput in this tank shall not exceed 629,000 gallons per day. [District Rule 2201]
12. The maximum wine storage throughput in this tank, calculated on a twelve month rolling basis, shall not exceed 4,450,000 gallons per year. [District Rule 2201]
13. The operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694]
14. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201]
15. The operator shall maintain records of the calculated 12 month rolling wine ethanol content and storage throughput rate (ethanol percentage by volume and gallons per 12 month rolling period, calculated monthly). [District Rule 2201]
16. If the throughput or ethanol content calculated for any rolling 12-month period exceeds the annual throughput or ethanol content limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput or ethanol content limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput and ethanol content are below the annual throughput and ethanol content limitations. [District Rule 2201]
17. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201]
18. 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, 2201 and 4694]

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: N-1237-715-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
629,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 6207) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT

CONDITIONS

1. {1829} The facility shall submit an application to modify the Title V permit in accordance with the timeframes and procedures of District Rule 2520. [District Rule 2520] Federally Enforceable Through Title V Permit
2. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantities of emissions: 1st quarter - 160 lb, 2nd quarter - 161 lb, 3rd quarter - 161 lb, and fourth quarter - 161 lb. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201]
3. ERC Certificate Numbers S-4025-1, S-4050-1, S-3807-1, and S-3805-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]
4. The nominal tank dimensions are 51 feet in diameter and 41 feet in height with a proposed volume of 629,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201]
5. This wine storage tank shall be used exclusively for wine storage operations only and not for fermentation. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services
N-1237-715-0 : Nov 7 2013 3:02PM – SWANEYJ : Joint Inspection NOT Required

6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694]
8. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694]
9. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rule 4694]
10. The weighted annual average ethanol content of wine stored in this tank, calculated on a twelve month rolling basis, shall not exceed 15 percent by volume. [District Rule 2201]
11. The maximum wine storage throughput in this tank shall not exceed 629,000 gallons per day. [District Rule 2201]
12. The maximum wine storage throughput in this tank, calculated on a twelve month rolling basis, shall not exceed 4,450,000 gallons per year. [District Rule 2201]
13. The operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694]
14. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201]
15. The operator shall maintain records of the calculated 12 month rolling wine ethanol content and storage throughput rate (ethanol percentage by volume and gallons per 12 month rolling period, calculated monthly). [District Rule 2201]
16. If the throughput or ethanol content calculated for any rolling 12-month period exceeds the annual throughput or ethanol content limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput or ethanol content limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput and ethanol content are below the annual throughput and ethanol content limitations. [District Rule 2201]
17. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201]
18. 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, 2201 and 4694]

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: N-1237-716-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: E & J GALLO WINERY
MAILING ADDRESS: ATTN: EHS MANAGER
18000 W RIVER RD
LIVINGSTON, CA 95334

LOCATION: 18000 W RIVER RD
LIVINGSTON, CA 95334

EQUIPMENT DESCRIPTION:
629,000 GALLON INSULATED STAINLESS STEEL WINE STORAGE TANK (TANK 6208) WITH PRESSURE/VACUUM VALVE, OR EQUIVALENT

CONDITIONS

1. {1829} The facility shall submit an application to modify the Title V permit in accordance with the timeframes and procedures of District Rule 2520. [District Rule 2520] Federally Enforceable Through Title V Permit
2. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantities of emissions: 1st quarter - 160 lb, 2nd quarter - 161 lb, 3rd quarter - 161 lb, and fourth quarter - 161 lb. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 4/21/11). [District Rule 2201]
3. ERC Certificate Numbers S-4025-1, S-4050-1, S-3807-1, and S-3805-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]
4. The nominal tank dimensions are 51 feet in diameter and 41 feet in height with a proposed volume of 629,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201]
5. This wine storage tank shall be used exclusively for wine storage operations only and not for fermentation. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services
N-1237-716-0 : Nov 7 2013 3:02PM – SWANEYJ : Joint Inspection NOT Required

6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694]
8. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694]
9. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rule 4694]
10. The weighted annual average ethanol content of wine stored in this tank, calculated on a twelve month rolling basis, shall not exceed 15 percent by volume. [District Rule 2201]
11. The maximum wine storage throughput in this tank shall not exceed 629,000 gallons per day. [District Rule 2201]
12. The maximum wine storage throughput in this tank, calculated on a twelve month rolling basis, shall not exceed 4,450,000 gallons per year. [District Rule 2201]
13. The operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694]
14. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201]
15. The operator shall maintain records of the calculated 12 month rolling wine ethanol content and storage throughput rate (ethanol percentage by volume and gallons per 12 month rolling period, calculated monthly). [District Rule 2201]
16. If the throughput or ethanol content calculated for any rolling 12-month period exceeds the annual throughput or ethanol content limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput or ethanol content limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput and ethanol content are below the annual throughput and ethanol content limitations. [District Rule 2201]
17. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201]
18. 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, 2201 and 4694]