



MAY 3 1 2016

Mr. Paul Bement
The Wine Group, Inc.
17000 E Highway 120
Ripon, CA 95366

**Re: Proposed ATC / Certificate of Conformity (Significant Mod)
District Facility # N-956
Project # N-1160024**

Dear Mr. Bement:

Enclosed for your review is the District's analysis of an application for Authority to Construct for the facility identified above. You requested that a Certificate of Conformity with the procedural requirements of 40 CFR Part 70 be issued with this project. This project authorizes two existing storage tanks to allow the storage of distilled spirits.

After addressing all comments made during the 30-day public notice and the 45-day EPA comment periods, the District intends to issue the Authority to Construct with a Certificate of Conformity. Please submit your comments within the 30-day public comment period, as specified in the enclosed public notice. Prior to operating with modifications authorized by the Authority to Construct, the facility must submit an application to modify the Title V permit as an administrative amendment, in accordance with District Rule 2520, Section 11.5.

If you have any questions, please contact Mr. Errol Villegas, Permit Services Manager, at (559) 230-5900.

Thank you for your cooperation in this matter.

Sincerely,

Arnaud Marjollet
Director of Permit Services

Enclosures

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

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San Joaquin Valley Air Pollution Control District
Authority to Construct Application Review
Modification of Wine Storage Tanks to Allow Storage of Distilled Spirits

Facility Name:	The Wine Group, Inc.	Date:	April 25, 2016
Mailing Address:	17000 E Highway 120 Ripon, CA 95366	Engineer:	Jesse A. Garcia
Contact Person:	Paul Bement	Lead Engineer:	Joven Refuerzo
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Email:	Paul.bement@thewinegroup.com		
Application #(s):	N-956-333-2 and -334-2		
Project #:	N-1160024		
Deemed Complete:	March 2, 2016		

I. Proposal

The Wine Group, Inc. has requested Authority to Construct (ATC) permits for the modification of two existing wine storage tanks to allow for the storage of distilled spirits. These tanks will be used for wine and distilled spirit storage only.

On March 23, 2016, the applicant amended the original proposal to increase the throughput from the originally proposed amount of 600,000 gallons/year for both tanks combined to 1,200,000 gallons/year for both tanks combined.

The Wine Group, Inc. 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). Since the facility has specifically requested that this project be processed in that manner, the 45-day EPA comment period will be satisfied prior to the issuance of the Authority to Construct. The Wine Group, Inc. must apply to administratively amend their Title V permit.

II. Applicable Rules

Rule 2201	New and Modified Stationary Source Review Rule (2/18/16)
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 4623	Storage of Organic Liquids (05/19/05)
Rule 4694	Wine Fermentation and Storage Tanks (12/15/05)
CH&SC 41700	Health Risk Assessment
CH&SC 42301.6	School Notice

III. Project Location

The facility is located at 17000 E Highway 120 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

The Wine Group, Inc. produces red and white wines and distilled alcoholic beverages which are stored and processed in the subject storage tanks. These tanks may hold wine with an ethanol content of up to 23.9% and distilled spirits with ethanol content up to 98% by volume for each tank.

V. Equipment Listing

Pre-Project Equipment Description:

N-956-333-1: 128,157 GALLON STAINLESS STEEL WINE STORAGE TANK #301 WITH PRESSURE/VACUUM VALVE AND INSULATION

N-956-334-1: 60,361 GALLON STAINLESS STEEL WINE STORAGE TANK #302 WITH PRESSURE/VACUUM VALVE AND INSULATION

Proposed Modification:

N-956-333-1: MODIFICATION OF 128,157 GALLON STAINLESS STEEL WINE STORAGE TANK #301 WITH PRESSURE/VACUUM VALVE AND INSULATION: ADD DISTILLED SPIRITS STORAGE CAPABILITY

N-956-334-1: MODIFICATION OF 60,361 GALLON STAINLESS STEEL WINE STORAGE TANK #302 WITH PRESSURE/VACUUM VALVE AND INSULATION: ADD DISTILLED SPIRITS STORAGE CAPABILITY

Post-Project Equipment Description:

N-956-333-1: 128,157 GALLON NOMINAL INSULATED STAINLESS STEEL WINE AND DISTILLED SPIRITS STORAGE TANK #301 WITH PRESSURE/VACUUM VALVE AND INSULATION

N-956-334-1: 60,361 GALLON NOMINAL INSULATED STAINLESS STEEL WINE AND DISTILLED SPIRITS STORAGE TANK #302 WITH PRESSURE/VACUUM VALVE AND INSULATION

VI. Emission Control Technology Evaluation

VOCs (ethanol) are emitted from wine and distilled spirits 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. When the storage tanks are insulated, breathing losses are considered to be negligible.

VII. General Calculations

A. Assumptions

- The tanks will only be used for red and white wine and distilled spirits storage
- Typically, for enclosed tanks with refrigeration and/or insulation (or equivalent) and P/V valves, breathing losses from storage of wine and distilled spirits are assumed to be negligible
- Maximum daily liquid storage temperature = 77.3 °F (per FYI-295)
- Maximum annual liquid storage temperature = 61.6 °F (per FYI-295)
- Storage tank daily and annual maximum ethanol content of stored wine/distilled spirits is:
 - 23.9% when storing wine
 - 98% when storing distilled spirits
- Maximum pre and post project wine storage throughput as taken from the permit:

Wine Storage Operation		
Tanks	Daily Storage (turnovers/day)	Annual Storage* (turnovers/year)
N-956-333-2	2	730
N-956-334-2	2	730

* Since there is only a daily throughput limit, the annual limit = daily x 365 days/year.

- Maximum post project distilled spirits storage throughput as proposed by the applicant:

Distilled Spirits Storage Operation		
Tanks	Daily Storage (turnovers/day)	Annual Storage (gal/year)
N-956-333-2	2	1,200,000
N-956-334-2	2	

B. Emission Factors

Tanks 4.0 will be used to calculate the storage emissions from the tanks.

C. Calculations

1. Pre-Project Potential to Emit (PE1)

Two Tanks 4.0 runs have been performed for the wine storage operation; one run was performed using the daily throughput times 31 and run in the month of July and then dividing the results by 31 to calculate the daily potential to emit and one run using the annual throughput to calculate the annual potential to emit. See Appendix A for the Tanks 4.0 runs for each tank and a summary of emissions from storage.

Tanks	Daily PE1 (lb-VOC/day)	Annual PE1 (lb-VOC/yr)
N-956-333-2	61.1	4,149
N-956-334-2	29.4	1,910

2. Post Project Potential to Emit (PE2)

The wine and distilled spirit tanks will be used for storage only. Since the wine storage operation is not being modified, PE2 = PE1. For distilled spirits storage operations, two Tanks 4.0 runs have been performed; one run was performed using the daily throughput times 31 and run in the month of July and then dividing the results by 31 to calculate the daily post-project potential to emit and one run using the annual throughput to calculate the annual post-project potential to emit. See Appendix A for the Tanks 4.0 runs for each tank and a summary of emissions from storage.

The maximum daily emissions are taken as the highest emissions from either wine or distilled spirits storage.

Wine Storage Operation		
Tanks	Daily PE2 (lb-VOC/day)	Annual PE2 (lb-VOC/yr)
N-956-333-2	61.1	4,149
N-956-334-2	29.4	1,910
Distilled Spirits Storage Operation		
Tanks	Daily PE2 (lb-VOC/day)	Annual PE2 (lb-VOC/yr)
N-956-333-2	197.8	856
N-956-334-2	95.2	

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

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:

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:

Rule 2410 applies to any pollutant regulated under the Clean Air Act, except those for which the District has been classified nonattainment. The only pollutant addressed by this project is VOC. Since the District is in nonattainment for VOC, this project will not trigger PSD requirements for the tanks. Therefore, PSD major source applicability will not be determined at this time.

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.

- 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.

As shown in Section VII.C.5 above, the facility concedes it is a major source for VOC emissions.

Since the tanks, when used for storage of distilled spirits, are new emissions units, BE = PE1 = 0 for all pollutants.

Clean Emissions Unit, Located at a Major Source

Pursuant to Rule 2201, a Clean Emissions Unit is defined as an emissions unit that is "equipped with an emissions control technology with a minimum control efficiency of at least 95% or is equipped with emission control technology that meets the requirements for achieved-in-practice BACT as accepted by the APCO during the five years immediately prior to the submission of the complete application.

These units, when used for storage of wine, meet the achieved-in-practice BACT for wine storage operations as stated in BACT Guideline 5.4.13 as they are insulated, equipped with a pressure/vacuum relief valve, are "gas tight" and have a continuous storage temperature not exceeding 75 degrees F within 60 days of completion of fermentation. See Appendix B for BACT Guideline 5.4.13.

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.*"

As discussed in Section VII.C.5 above, the facility is an existing Major Source for VOC; however, the project by itself would need to be a significant increase in order to trigger a Major Modification. The emissions units within this project do not have a total potential to emit which is greater than Major Modification threshold (see table below). Therefore, the project cannot be a significant increase and the project does not constitute a Major Modification.

SB 288 Major Modification Threshold (Existing Major Source)			
Pollutant	Project PE (lb/year)	Threshold (lb/year)	Major Modification?
VOC	6,915	50,000	No

8. Federal Major Modification

District Rule 2201, Section 3.17 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.

Since this project consists of both existing and new emissions units, the “hybrid test” specified in 40 CFR(a)(2)(ii)(F) is applicable and requires that the NEI determination be based on the sum of the individual NEI determinations for existing emissions units (NEI_E) and new emissions units (NEI_N) pursuant to 40 CFR(a)(2)(ii)(C) and (D) respectively. Therefore,

$$NEI = NEI_E + NEI_N$$

Net Emission Increase for Existing Units (NEI_E)

The project's emission increase for each pollutant is equal to the sum of the differences between the projected actual emissions or PE and the baseline actual emissions (BAE) (for existing emission units).

$$NEI_E = PAE - BAE - UBC$$

Where: PAE = Projected Actual Emissions = PE2 = PE1, and
BAE = Baseline Actual Emissions
UBC = Unused baseline capacity

Since this project does not result in an increase in design capacity or potential to emit for the existing units (storage of wine), and it does not impact the ability of the emission unit to operate at a higher utilization rate, the UBC is the portion of PAE that the emission units could have accommodated during the baseline period; therefore, $UBC = PE1 - BAE$.

$$NEI_E = PAE - BAE - UBC = PE1 - BAE - (PE1 - BAE)$$
$$NEI_E = 0 \text{ lb/year}$$

Net Emission Increase for New Units (NEI_N)

The project's emission increase for each pollutant is equal to the sum of the potentials to emit (for new emission units).

$$NEI_N = \sum PE_{2N}$$

$$NEI_N = 428 \text{ lb-VOC/year for storage of distilled spirits}$$

$$NEI = NEI_E + NEI_N$$
$$= 0 + 856 \text{ lb-VOC/year}$$
$$= \mathbf{856 \text{ lb-VOC/year}}$$

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.

Federal Offset Quantities:

The Federal offset quantity is only calculated only for the pollutants for which the project is a Federal Major Modification. The Federal offset quantity is the sum of the annual emission changes for all new and modified emission units in a project calculated as the potential to emit after the modification (PE2) minus the actual emissions (AE) during the baseline period for each emission unit times the applicable federal offset ratio. There are no special calculations performed for units covered by an SLC. Since the emissions units of wine storage is not being modified, only the new emissions units of spirits storage will be considered for the Federal Offsets Quantity.

VOC		Federal Offset Ratio	1.5
Permit No.	Actual Emissions (lb/year)	Potential Emissions (lb/year)	Emissions Change (lb/yr)
N-956-333 and -334	0	856	856
Net Emission Change (lb/year):			856
Federal Offset Quantity: (NEC * 1.5)			1,284

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

Rule 2410 applies to any pollutant regulated under the Clean Air Act, except those for which the District has been classified nonattainment. The pollutants which must be addressed in the PSD applicability determination for sources located in the SJV and which are emitted in this project are: (See 52.21 (b) (23) definition of significant)

- NO2 (as a primary pollutant)
- SO2 (as a primary pollutant)
- CO
- PM
- PM10

I. Project Location Relative to Class 1 Area

As a worst case, for this project, the facility is assumed to be an existing PSD Major Source. Because the project is not located within 10 km (6.2 miles) 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. Project Emission Increase – Significance Determination

a. Evaluation of Calculated Post-project Potential to Emit for New or Modified Emissions Units vs PSD Significant Emission Increase Thresholds

As a screening tool, the post-project potential to emit from all new and modified units is compared to the PSD significant emission increase thresholds, and if the total potentials to emit from all new and modified units are below the applicable thresholds, no further PSD analysis is needed.

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

As demonstrated above, because the post-project total potentials to emit from all new and modified emission units are below the PSD significant emission increase thresholds, this project is not subject to the requirements of Rule 2410 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 D.

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 operate the existing tanks as new emissions units with the storage of distilled spirits with a PE greater than 2 lb/day for VOC. Thus BACT is triggered for VOC for these new 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 – APE > 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 VII.C.8 above, this project constitutes a Federal Major Modification for VOC emissions. Therefore BACT is triggered for VOC for all emissions units in the project for which there is an emission increase. Since there is no increase in emissions from the wine storage operations, BACT is only triggered for the storage of distilled spirits.

2. BACT Guideline

BACT Guidelines 5.4.15, applies to the distilled spirits storage tanks. [Distilled Spirits Storage Tanks]. (Appendix B)

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 Analysis (Appendix B), 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

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) = $(\Sigma[\text{PE2} - \text{BE}] + \text{ICCE}) \times \text{DOR}$, 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) = $\Sigma[\text{PE2} - \text{BE}] \times \text{DOR}$

The project is a Federal Major Modification; therefore, the offset ratio for VOC is 1.5:1.

Offsets Required for Storage of Wine				
Tank Model (ATCs)	PE2 (lb-VOC/yr)	Annual BE (lb-VOC/yr)	DOR	Offsets Required (lb-VOC/yr)
N-956-333-2	4,149	4,149	1.5	0
N-956-334-2	1,910	1,910	1.5	0
Total				0

Offsets Required for Storage of Distilled Spirits				
Tank Model (ATCs)	PE2 (lb-VOC/yr)	Annual BE (lb-VOC/yr)	DOR	Offsets Required (lb-VOC/yr)
N-956-333-2	856	0	1.5	1,284
N-956-334-2		0		
Total				1,284

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

$$\text{Quarterly offsets required (lb/qtr)} = (\text{Annual Offsets lb-VOC/year}) \div (4 \text{ quarters/year})$$

Quarterly Offset Requirements for Each Tank - VOCs				
Tank Model (ATCs)	1 st Qtr (lb/qtr)	2 nd Qtr (lb/qtr)	3 rd Qtr (lb/qtr)	4 th Qtr (lb/qtr)
N-956-333-2	321	321	321	321
N-956-334-2				
Total	321	321	321	321

The applicant has stated that the facility proposes to use ERC certificate S-4661-1 (split from S-4429-1) to offset the increases in VOC emissions associated with this project. The above certificate has available quarterly VOC credits as follows:

	<u>1st Quarter</u>	<u>2nd Quarter</u>	<u>3rd Quarter</u>	<u>4th Quarter</u>
ERC #S-4661-1	500	500	500	500

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:

For Both Tanks:

- ERC Certificate Number S-4661-1 (or a certificate split from this certificate) 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]

- {GC# 4447 - edited} Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 321 lb, 2nd quarter - 321 lb, 3rd quarter - 321 lb, and fourth quarter - 321 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 2/18/16). [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.
- e. Any project which results in a Title V significant permit modification

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. As seen in Section VII.C.2 above, this project includes a new emissions unit which has daily emissions greater than 100 lb/day for any pollutant; therefore public noticing for PE > 100 lb/day purposes is required.

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 solely from the increase in emissions from the addition of the distilled spirits storage operation which is 428 lb-VOC/year as calculated in Section VII.C.2 above. The SSIPE is compared to the SSIPE Public Notice thresholds in the following table:

Stationary Source Increase in Permitted Emissions [SSIPE] – Public Notice			
Pollutant	SSIPE (lb/year)	SSIPE Public Notice Threshold	Public Notice Required?
VOC	856	20,000 lb/year	No

As demonstrated above, the SSIPEs for all pollutants were less than 20,000 lb/year; therefore public noticing for SSIPE purposes is not required.

e. Title V Significant Permit Modification

As shown in the Discussion of Rule 2520 below, this project constitutes a Title V significant modification. Therefore, public noticing for Title V significant modifications is required for this project.

2. Public Notice Action

As discussed above, public noticing is required for this project for being a Federal Major Modification and for an emissions unit with emissions exceeding 100 lb/day. Therefore, public notice documents will be submitted to the California Air Resources Board (CARB) and 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 ATCs for this equipment.

D. Daily Emission Limits (DELs)

DELs and other enforceable conditions are required by Rule 2201 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.

For both storage tank emissions units affected by this project, the DEL is stated in the form of a daily limit on tank throughput and a maximum ethanol content.

Existing Rule 2201 (DEL) Conditions (Wine Storage):

- The ethanol content of wine stored in this tank shall not exceed 23.9 percent by volume. [District Rule 2201]
- Daily tank throughput, in gallons, shall not exceed two times the tank capacity stated in the equipment description. [District Rule 2201]
- Total annual VOC emissions from all wine fermentation and wine storage operations at this facility, calculated on a rolling 12-month total basis, shall not exceed 581,212 lb. [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]

Proposed Rule 2201 (DEL) Conditions (Distilled Spirits Storage):

- The ethanol content of spirits stored in this tank shall not exceed 98.0 percent by volume. [District Rule 2201]
- The maximum spirits storage throughput for tanks listed under permit N-956-333 and N-956-334, calculated on a twelve month rolling basis, shall not exceed 1,200,000 gallons per year. [District Rule 2201]
- 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]
- 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]

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. 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/spirits 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 of the twelve month rolling distilled spirits storage throughput shall be maintained and updated monthly. [District Rule 2201]

4. Reporting

No reporting is required to demonstrate compliance with Rule 2201.

F. Ambient Air Quality Analysis

Section 4.14.1 of this Rule requires that an ambient air quality analysis (AAQA) 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

Section 4.15.2 of this Rule requires the owner of a new Major Source or a source undergoing a Federal Major 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 Sections VIII-Rule 2201-C.1.a and VIII-Rule 2201-C.1.b, this source is undergoing a Federal Major Modification, therefore this requirement is applicable. Included in Appendix C is the facility's compliance certification.

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 applied for a Certificate of Conformity (COC); therefore, the facility must apply to modify their Title V permit with an administrative amendment 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/spirits 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/spirits 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.

Rule 4623 Storage of Organic Liquids

The purpose of this rule is to limit volatile organic compound (VOC) emissions from the storage of organic liquids. This rule applies to any tank with a capacity of 1,100 gallons or greater in which any organic liquid is placed, held, or stored.

However, Section 4.1.4 provides an exemption for tanks used to store fermentation products, byproducts or spirits. The tanks in this project are storage tanks used to store wine and distilled spirits. Therefore, the requirements of this rule are not applicable to this project.

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 any winery fermenting wine and/or storing wine in bulk containers.

The storage tanks in this project store distilled spirits as well as wine. Therefore, the requirements of this rule are not applicable to the tanks when storing distilled spirits. However, when storing wine, the proposed tanks are subject to this rule; therefore, the following discussion only applies when the tanks are storing wine.

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 the 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 \geq 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]
- 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]

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 $\geq 5,000$ 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 Rules 2201 and 4694]

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 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]

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 Health & Safety Code 42301.6 (School Notice)

The District has verified that this site is not located within 1,000 feet of a school. Therefore, pursuant to California Health and Safety Code 42301.6, a school notice is not required.

California Environmental Quality Act (CEQA)

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 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; and
- 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.

Greenhouse Gas (GHG) Significance Determination

It is determined that no other agency has or will prepare an environmental review document for the project. Thus the District is the Lead Agency for this project.

The District's engineering evaluation (this document) demonstrates that the project would not result in an increase in project specific greenhouse gas emissions. The District therefore concludes that the project would have a less than cumulatively significant impact on global climate change.

District CEQA Findings

According to District Policy APR 2010 (CEQA Implementation Policy), when the District is the Lead or Responsible Agency for CEQA purposes, an indemnification agreement and/or a letter of credit may be required. The decision to require an indemnity agreement and/or a letter of credit are based on a case-by-case analysis of a particular project's potential for litigation risk, which in turn may be based on a project's potential to generate public concern, its potential for significant impacts, and the project proponent's ability to pay for the costs of litigation without a letter of credit, among other factors.

As described above, the proposed project has been determined to have a less than significant environmental impact. There is no known public concern for this particular facility at this time. However, the project does trigger public notice.

As such, an Indemnification Agreement and Letter of Credit are not required for this project. However, because a public notice will be triggered, the District retains the discretion to require an indemnification agreement and Letter of Credit after the public notice period ends.

IX. Recommendation

Compliance with all applicable rules and regulations is expected. Pending a successful NSR Public Noticing period, issue Authorities to Construct N-956-333-2 and -334-2 subject to the permit conditions on the attached draft Authorities to Construct in Appendix E.

X. Billing Information

Annual Permit Fees			
Permit Number	Fee Schedule	Fee Description	Annual Fee
N-956-333-2	3020-05-E	128,157 gallons	\$258.00
N-956-334-2	3020-05-D	60,361 gallons	\$194.00

XI. Appendices

- A: Tanks 4.0 Calculations and Summary
- B: BACT Guidelines 5.4.13 and 5.4.15 and Top Down BACT Analysis
- C: Compliance Certification
- D: QNEC Calculations
- E: Draft ATCs

Appendix A

Tanks 4.0 Calculations and Summary

N-956			Output from Tank 4.0 total emissions no speciation				
	% by Volume Alcohol	Average Ya	AMW Average	Total Pound of Emissions per Day	Total Pound of Emissions per Year	Alcohol Emissions in pounds (Max Daily)	Alcohol Emissions in pounds (Max Annual)
N-956-333	98.0%	0.9345	44.19	6299.90	439.96	197.8	428*
	23.9%	0.4398	30.34	2838.99	6218.03	61.1	4149
N-956-334	98.0%	0.9345	44.19	3030.85	439.96	95.2	428*
	23.9%	0.4398	30.34	1365.82	2863.15	29.4	1910

* Since these tanks, when storing distilled spirits, have a combined limit, only one tank can potentially emit 428 lbs

Daily VOC for 9890 - Distilled Spirits Storage

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

Identification

User Identification:	The Wine Group, Inc (N-956-333-2)
City:	Ripon
State:	California
Company:	The Wine Group, Inc
Type of Tank:	Vertical Fixed Roof Tank
Description:	128,157 gallon insulated Stainless Steel Storage Tank #301 with PV valve

Tank Dimensions

Shell Height (ft):	28 00
Diameter (ft):	28 00
Liquid Height (ft):	28 00
Avg Liquid Height (ft)	28 00
Volume (gallons)	128,972 52
Turnovers:	62 00
Net Throughput(gal/yr)	7,996,293 24
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)	0 00
Slope (l/ft) (Cone Roof)	0 00

Breather Vent Settings

Vacuum Settings (psig)	0 00
Pressure Settings (psig)	0 00

Meteorological Data used in Emissions Calculations: Stockton, California (Avg Atmospheric Pressure = 14.72 psia)

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

The Wine Group, Inc. (N-956-333-2) - Vertical Fixed Roof Tank
Ripon, California

Mixture/Component	Month	Daily Liquid Surf Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol Weigh	Liquid Mass Fract	Vapor Mass Fract	Mol Weight	Basis for Vapor Pressure Calculation
		Avg	Min	Max		Avg	Min	Max					
Wine 98.0 % Vol Alcohol	Jul	77.30	77.30	77.30	77.30	1.1511	1.1511	1.1511	44.1870			43.85	Option 1: VP70 = 90826 VP80 = 1.24097

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

The Wine Group, Inc. (N-956-333-2) - Vertical Fixed Roof Tank
Ripon, California

Month	January	February	March	April	May	June	July	August	September	October	November	December
Standing Losses (lb)							0.0000					
Vapor Space Volume (cu ft):							0167522					
Vapor Density (lb/cu ft):							0.0088					
Vapor Space Expansion Factor:							0.0000					
Vented Vapor Saturation Factor:							0.0425					
Tank Vapor Space Volume							0167522					
Vapor Space Volume (cu ft):							28.0000					
Tank Diameter (ft):							1.0000					
Vapor Space Cutage (ft):							20.0000					
Tank Shell Height (ft):							28.0000					
Average Liquid Height (ft):							0.0000					
Roof Outage (ft)							0.0000					
Roof Outage (Cone Roof)							0.0000					
Roof Outage (ft):							0.0000					
Roof Height (ft):							0.0000					
Roof Slope (ft/ft):							14.0000					
Shell Radius (ft)												
Vapor Density							0.0088					
Vapor Density (lb/cu ft):							44.1870					
Vapor Molecular Weight (lb/lb-mole):							1.1511					
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):							536.0700					
Daily Avg. Liquid Surface Temp. (deg R):							77.0500					
Daily Average Ambient Temp. (deg F):							10.731					
Ideal Gas Constant R (psia-cu ft / (lb-mol-deg R)):							536.9700					
Liquid Bulk Temperature (deg R):							0.1700					
Tank Paint Solar Absorptance (Shell):							0.1700					
Tank Paint Solar Absorptance (Roof):							2.038.0000					
Daily Total Solar Insolation Factor (Blueact day)							0.0000					
Vapor Space Expansion Factor							0.0000					
Vapor Space Expansion Factor:							0.0000					
Daily Vapor Temperature Range (deg R):							0.0000					
Daily Vapor Pressure Range (psia):							0.0000					
Diurnal Vent Press. Setting Range (psia):							0.0000					
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):							1.1511					
Vapor Pressure at Daily Minimum Liquid Surface Temperature (psia):							1.1511					
Vapor Pressure at Daily Maximum Liquid Surface Temperature (psia):							1.1511					
Daily Avg. Liquid Surface Temp. (deg R):							536.0700					
Daily Min. Liquid Surface Temp. (deg R):							536.0700					
Daily Max. Liquid Surface Temp. (deg R):							536.9700					
Daily Ambient Temp. Range (deg R):							33.5000					
Vented Vapor Saturation Factor							0.0425					
Vented Vapor Saturation Factor:							0.0425					
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):							1.1511					
Vapor Space Outage (ft):							1.0000					
Working Losses (lb)							6,289.8988					
Vapor Molecular Weight (lb/lb-mole):							44.1870					
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):							1.1511					
Net Throughput (gal/mo):							7,966,293.2400					
Annual Turnovers:							62.0000					
Turnover Factor:							0.6505					
Maximum Liquid Volume (gal):							126,072.5159					
Maximum Liquid Height (ft):							28.0000					
Tank Diameter (ft):							28.0000					
Working Loss Product Factor:							1.0500					
Total Losses (lb)							6,289.8988					

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

Emissions Report for: July

**The Wine Group, Inc. (N-956-333-2) - Vertical Fixed Roof Tank
Ripon, California**

Components	Losses(lbs)		Total Emissions
	Working Loss	Breathing Loss	
Wine 98.0 % Vol Alcohol	6,299.90	0.00	6,299.90

Daily VOC Emissions for 23.9% - Wine Storage

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

Identification

User Identification:	The Wine Group, Inc (N-956-333-2)
City:	Ripon
State:	California
Company:	The Wine Group, Inc
Type of Tank:	Vortical Fixed Roof Tank
Description:	128,157 gallon Insulated Stainless Steel Storage Tank #301 with PV valve

Tank Dimensions

Shell Height (ft):	29.00
Diameter (ft):	28.00
Liquid Height (ft):	28.00
Avg. Liquid Height (ft):	28.00
Volume (gallons):	128,972.52
Turnovers:	62.00
Net Throughput(gal/yr):	7,990,295.98
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):	0.00
Slope (ft/ft) (Cone Roof):	0.00

Breather Vent Settings

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

Meteorological Data used in Emissions Calculations: Stockton, California (Avg Atmospheric Pressure = 14.72 psia)

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

The Wine Group, Inc. (N-956-333-2) - Vertical Fixed Roof Tank
Ripon, California

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol. Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol Weight	Basis for Vapor Pressure Calculations
		Avg	Min	Max		Avg	Min	Max					
Wine 23.9 % Vol Alcohol	Jul	77.30	77.30	77.30	77.30	0.7550	0.7550	0.7550	30.3355			20.45	Option 1: VP70 = .50508 VP80 = 0.1659

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

The Wine Group, Inc. (N-956-333-2) - Vertical Fixed Roof Tank
Ripon, California

Month	January	February	March	April	May	June	July	August	September	October	November	December
Standing Losses (lb)							0.0000					
Vapor Space Volume (cu ft)							015 7522					
Vapor Density (lb/cu ft)							0.0040					
Vapor Space Expansion Factor							0.0000					
Vented Vapor Saturation Factor							0.9015					
Tank Vapor Space Volume							015 7522					
Vapor Space Volume (cu ft)							28 0000					
Tank Diameter (ft)							1 0000					
Vapor Space Outage (ft)							29 0000					
Tank Shell Height (ft)							28 0000					
Average Liquid Height (ft)							0.0000					
Roof Outage (ft)							0.0000					
Roof Outage (Cone Roof)							0.0000					
Roof Height (ft)							0.0000					
Roof Slope (ft/ft)							0.0000					
Shell Radius (ft)							14 0000					
Vapor Density							0.0040					
Vapor Density (lb/cu ft)							30 3355					
Vapor Molecular Weight (lb/lb-mole)							0.7550					
Vapor Pressure at Daily Average Liquid Surface Temperature (psia)							536 9700					
Daily Avg. Liquid Surface Temp (deg R)							77 6500					
Daily Average Ambient Temp (deg F)							10 731					
Ideal Gas Constant R (psia-cu-ft/lb-mol-deg-R)							536 9700					
Liquid Bulk Temperature (deg R)							0 1700					
Tank Paint Solar Absorptance (Shell)							0 1700					
Tank Paint Solar Absorptance (Roof)							2,686 0000					
Daily Total Solar Irradiation Factor (Btu/sq-ft-day)							0.0000					
Vapor Space Expansion Factor							0.0000					
Vapor Space Expansion Factor							0.0000					
Daily Vapor Temperature Range (deg R)							0.0000					
Daily Vapor Pressure Range (psia)							0.0000					
Breathert Vent Press. Setting Range (psia)							0.0000					
Vapor Pressure at Daily Average Liquid Surface Temperature (psia)							0.7550					
Vapor Pressure at Daily Minimum Liquid Surface Temperature (psia)							0.7550					
Vapor Pressure at Daily Maximum Liquid Surface Temperature (psia)							536 9700					
Daily Avg. Liquid Surface Temp (deg R)							536 9700					
Daily Min. Liquid Surface Temp (deg R)							536 9700					
Daily Max. Liquid Surface Temp (deg R)							536 9700					
Daily Ambient Temp Range (deg R)							33 5000					
Vented Vapor Saturation Factor							0.9015					
Vented Vapor Saturation Factor							0.9015					
Vapor Pressure at Daily Average Liquid Surface Temperature (psia)							0.7550					
Vapor Space Outage (ft)							1 0000					
Working Losses (lb)							2,838 8665					
Vapor Molecular Weight (lb/lb-mole)							30 3355					
Vapor Pressure at Daily Average Liquid Surface Temperature (psia)							0.7550					
Net Throughput (gal/mo)							7,990,205 9830					
Annual Turnovers							62 0000					
Turnover Factor							0.0505					
Maximum Liquid Volume (gal)							128,972 5158					
Maximum Liquid Height (ft)							28 0000					
Tank Diameter (ft)							28 0000					
Working Loss Product Factor							1 0000					
Total Losses (lb)							2,838 8665					

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

Emissions Report for: July

**The Wine Group, Inc. (N-956-333-2) - Vertical Fixed Roof Tank
Ripon, California**

Components	Losses(lbs)		
	Working Loss	Breathing Loss	Total Emissions
Wine 23.9 % Vol Alcohol	2,838.99	0.00	2,838.99

Annual VOC for 98% - Distilled Spirits Storage

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

Identification

User Identification:	The Wine Group, Inc (N-956-333-2)
City	Ripon
State	California
Company	The Wine Group, Inc
Type of Tank	Vertical Fixed Roof Tank
Description	128,157 gallon Insulated Stainless Steel Storage Tank #301 with PV valve

Tank Dimensions

Shell Height (ft):	29 00
Diameter (ft):	28 00
Liquid Height (ft):	28 00
Avg Liquid Height (ft):	28 00
Volume (gallons):	128,072 52
Turnovers:	4 65
Net Throughput(gal/yr)	600,000 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)	0 00
Slope (ft/ft) (Cone Roof)	0 00

Breather Vent Settings

Vacuum Settings (psig):	0 00
Pressure Settings (psig)	0 00

Meteorological Data used in Emissions Calculations: Stockton, California (Avg Atmospheric Pressure = 14 72 psia)

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

The Wine Group, Inc. (N-956-333-2) - Vertical Fixed Roof Tank
Ripon, California

Mixture/Component	Month	Daily Liquid Surf Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol. Weight	Liquid Mass Fract	Vapor Mass Fract	Mol. Weight	Basis for Vapor Pressure Calculations
		Avg	Min	Max		Avg	Min	Max					
Wine 58.0 % Vol Alcohol	Jan	61.60	61.60	61.60	61.60	0.6970	0.6970	0.6970	44.1870			43.85	Option 1: VP60 = 65673 VP70 = 90826
Wine 58.0 % Vol Alcohol	Feb	61.60	61.60	61.60	61.60	0.6970	0.6970	0.6970	44.1870			43.85	Option 1: VP60 = 65673 VP70 = 90826
Wine 58.0 % Vol Alcohol	Mar	61.60	61.60	61.60	61.60	0.6970	0.6970	0.6970	44.1870			43.85	Option 1: VP60 = 65673 VP70 = 90826
Wine 58.0 % Vol Alcohol	Apr	61.60	61.60	61.60	61.60	0.6970	0.6970	0.6970	44.1870			43.85	Option 1: VP60 = 65673 VP70 = 90826
Wine 58.0 % Vol Alcohol	May	61.60	61.60	61.60	61.60	0.6970	0.6970	0.6970	44.1870			43.85	Option 1: VP60 = 65673 VP70 = 90826
Wine 58.0 % Vol Alcohol	Jun	61.60	61.60	61.60	61.60	0.6970	0.6970	0.6970	44.1870			43.85	Option 1: VP60 = 65673 VP70 = 90826
Wine 58.0 % Vol Alcohol	Jul	61.60	61.60	61.60	61.60	0.6970	0.6970	0.6970	44.1870			43.85	Option 1: VP60 = 65673 VP70 = 90826
Wine 58.0 % Vol Alcohol	Aug	61.60	61.60	61.60	61.60	0.6970	0.6970	0.6970	44.1870			43.85	Option 1: VP60 = 65673 VP70 = 90826
Wine 58.0 % Vol Alcohol	Sep	61.60	61.60	61.60	61.60	0.6970	0.6970	0.6970	44.1870			43.85	Option 1: VP60 = 65673 VP70 = 90826
Wine 58.0 % Vol Alcohol	Oct	61.60	61.60	61.60	61.60	0.6970	0.6970	0.6970	44.1870			43.85	Option 1: VP60 = 65673 VP70 = 90826
Wine 58.0 % Vol Alcohol	Nov	61.60	61.60	61.60	61.60	0.6970	0.6970	0.6970	44.1870			43.85	Option 1: VP60 = 65673 VP70 = 90826
Wine 58.0 % Vol Alcohol	Dec	61.60	61.60	61.60	61.60	0.6970	0.6970	0.6970	44.1870			43.85	Option 1: VP60 = 65673 VP70 = 90826

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

The Wine Group, Inc. (N-956-333-2) - Vertical Fixed Roof Tank
Ripon, 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)	615.7522	615.7522	615.7522	615.7522	615.7522	615.7522	615.7522	615.7522	615.7522	615.7522	615.7522	615.7522
Vapor Density (lb/cu ft)	0.0055	0.0055	0.0055	0.0055	0.0055	0.0055	0.0055	0.0055	0.0055	0.0055	0.0055	0.0055
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	0.9644	0.9644	0.9644	0.9644	0.9644	0.9644	0.9644	0.9644	0.9644	0.9644	0.9644	0.9644
Vapor Space Volume	615.7522	615.7522	615.7522	615.7522	615.7522	615.7522	615.7522	615.7522	615.7522	615.7522	615.7522	615.7522
Vapor Space Volume (cu ft)	28.0000	28.0000	28.0000	28.0000	28.0000	28.0000	28.0000	28.0000	28.0000	28.0000	28.0000	28.0000
Tank Diameter (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
Vapor Space Height (ft)	29.0000	29.0000	29.0000	29.0000	29.0000	29.0000	29.0000	29.0000	29.0000	29.0000	29.0000	29.0000
Tank Shell Height (ft)	28.0000	28.0000	28.0000	28.0000	28.0000	28.0000	28.0000	28.0000	28.0000	28.0000	28.0000	28.0000
Average Liquid Height (ft)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Roof Outage (ft)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Roof Outage (Cone Roof)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Roof Height (ft)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Roof Slope (ft/ft)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Roof Slope (ft/ft)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Roof Radius (ft)	14.0000	14.0000	14.0000	14.0000	14.0000	14.0000	14.0000	14.0000	14.0000	14.0000	14.0000	14.0000
Vapor Density	0.0055	0.0055	0.0055	0.0055	0.0055	0.0055	0.0055	0.0055	0.0055	0.0055	0.0055	0.0055
Vapor Density (lb/cu ft)	44.1870	44.1870	44.1870	44.1870	44.1870	44.1870	44.1870	44.1870	44.1870	44.1870	44.1870	44.1870
Vapor Molecular Weight (lb/mole)	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970
Vapor Pressure at Daily Average Liquid Surface Temperature (psia)	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700
Daily Avg. Liquid Surface Temp. (deg R)	45.0000	50.5000	54.0000	59.3000	69.7000	73.3000	77.6000	70.6000	72.7000	64.5000	53.0000	44.9000
Daily Average Ambient Temp. (deg F)	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731
Ideal Gas Constant (ft ³ ·lb-mol ⁻¹ ·deg R ⁻¹)	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700
Liquid Bulk Temperature (deg R)	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 Plant 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 Plant 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 Insolation Factor: (Shut-off only)	597.0000	930.0000	1,458.0000	2,004.0000	2,435.0000	2,684.0000	2,688.0000	2,308.0000	1,927.0000	1,315.0000	782.0000	538.0000
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
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)	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970
Vapor Pressure at Daily Minimum Liquid Surface Temperature (psia)	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970
Vapor Pressure at Daily Maximum Liquid Surface Temperature (psia)	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970
Daily Avg. Liquid Surface Temp. (deg R)	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700
Daily Min. Liquid Surface Temp. (deg R)	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700
Daily Max. Liquid Surface Temp. (deg R)	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700
Daily Ambient Temp. Range (deg R)	18.0000	26.0000	27.0000	27.0000	28.0000	31.0000	33.0000	32.0000	30.0000	27.0000	20.0000	15.0000
Vented Vapor Saturation Factor	0.9644	0.9644	0.9644	0.9644	0.9644	0.9644	0.9644	0.9644	0.9644	0.9644	0.9644	0.9644
Vented Vapor Saturation Factor	0.9644	0.9644	0.9644	0.9644	0.9644	0.9644	0.9644	0.9644	0.9644	0.9644	0.9644	0.9644
Vapor Pressure at Daily Average Liquid Surface Temperature (psia)	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970
Vapor Space Height (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)	36.6633	36.6633	36.6633	36.6633	36.6633	36.6633	36.6633	36.6633	36.6633	36.6633	36.6633	36.6633
Working Losses (lb)	44.1870	44.1870	44.1870	44.1870	44.1870	44.1870	44.1870	44.1870	44.1870	44.1870	44.1870	44.1870
Vapor Molecular Weight (lb/mole)	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970
Vapor Pressure at Daily Average Liquid Surface Temperature (psia)	4.6522	4.6522	4.6522	4.6522	4.6522	4.6522	4.6522	4.6522	4.6522	4.6522	4.6522	4.6522
Net Throughput (gal/mo)	50,000.0000	50,000.0000	50,000.0000	50,000.0000	50,000.0000	50,000.0000	50,000.0000	50,000.0000	50,000.0000	50,000.0000	50,000.0000	50,000.0000
Annual Turnovers	4.6522	4.6522	4.6522	4.6522	4.6522	4.6522	4.6522	4.6522	4.6522	4.6522	4.6522	4.6522
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)	128,972.5159	128,972.5159	128,972.5159	128,972.5159	128,972.5159	128,972.5159	128,972.5159	128,972.5159	128,972.5159	128,972.5159	128,972.5159	128,972.5159
Maximum Liquid Height (ft)	28.0000	28.0000	28.0000	28.0000	28.0000	28.0000	28.0000	28.0000	28.0000	28.0000	28.0000	28.0000
Tank Diameter (ft)	28.0000	28.0000	28.0000	28.0000	28.0000	28.0000	28.0000	28.0000	28.0000	28.0000	28.0000	28.0000
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)	36.6633	36.6633	36.6633	36.6633	36.6633	36.6633	36.6633	36.6633	36.6633	36.6633	36.6633	36.6633

**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

**The Wine Group, Inc. (N-956-333-2) - Vertical Fixed Roof Tank
Ripon, California**

Components	Losses(lbs)		Total Emissions
	Working Loss	Breathing Loss	
Wine 98.0 % Vol Alcohol	439.96	0.00	439.96

Annual VOC for 25.9%

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

Identification

User Identification: N-956-333-2 Annual
 City:
 State:
 Company:
 Type of Tank: Vertical Fixed Roof Tank
 Description:

Tank Dimensions

Shell Height (ft): 29.00
 Diameter (ft): 28.00
 Liquid Height (ft) : 28.00
 Avg. Liquid Height (ft): 28.00
 Volume (gallons): 128,972.52
 Turnovers: 730.00
 Net Throughput(gal/yr): 94,149,936.58
 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): 1.00
 Slope (ft/ft) (Cone Roof): 0.07

Breather Vent Settings

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

Meteorological Data used in Emissions Calculations: Stockton, California (Avg Atmospheric Pressure = 14.72 psia)

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

N-956-333-2 Annual - Vertical Fixed Roof Tank

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol. Weight.	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
		Avg.	Min.	Max.		Avg.	Min.	Max.					
Wine 23.9 % Vol Alcohol	Jan	61.60	61.60	61.60	61.60	0.4401	0.4401	0.4401	30.3355			20.45	Option 1: VP60 = .4125 VP70 = .58508
Wine 23.9 % Vol Alcohol	Feb	61.60	61.60	61.60	61.60	0.4401	0.4401	0.4401	30.3355			20.45	Option 1: VP60 = .4125 VP70 = .58508
Wine 23.9 % Vol Alcohol	Mar	61.60	61.60	61.60	61.60	0.4401	0.4401	0.4401	30.3355			20.45	Option 1: VP60 = .4125 VP70 = .58508
Wine 23.9 % Vol Alcohol	Apr	61.60	61.60	61.60	61.60	0.4401	0.4401	0.4401	30.3355			20.45	Option 1: VP60 = .4125 VP70 = .58508
Wine 23.9 % Vol Alcohol	May	61.60	61.60	61.60	61.60	0.4401	0.4401	0.4401	30.3355			20.45	Option 1: VP60 = .4125 VP70 = .58508
Wine 23.9 % Vol Alcohol	Jun	61.60	61.60	61.60	61.60	0.4401	0.4401	0.4401	30.3355			20.45	Option 1: VP60 = .4125 VP70 = .58508
Wine 23.9 % Vol Alcohol	Jul	61.60	61.60	61.60	61.60	0.4401	0.4401	0.4401	30.3355			20.45	Option 1: VP60 = .4125 VP70 = .58508
Wine 23.9 % Vol Alcohol	Aug	61.60	61.60	61.60	61.60	0.4401	0.4401	0.4401	30.3355			20.45	Option 1: VP60 = .4125 VP70 = .58508
Wine 23.9 % Vol Alcohol	Sep	61.60	61.60	61.60	61.60	0.4401	0.4401	0.4401	30.3355			20.45	Option 1: VP60 = .4125 VP70 = .58508
Wine 23.9 % Vol Alcohol	Oct	61.60	61.60	61.60	61.60	0.4401	0.4401	0.4401	30.3355			20.45	Option 1: VP60 = .4125 VP70 = .58508
Wine 23.9 % Vol Alcohol	Nov	61.60	61.60	61.60	61.60	0.4401	0.4401	0.4401	30.3355			20.45	Option 1: VP60 = .4125 VP70 = .58508
Wine 23.9 % Vol Alcohol	Dec	61.60	61.60	61.60	61.60	0.4401	0.4401	0.4401	30.3355			20.45	Option 1: VP60 = .4125 VP70 = .58508

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

N-956-333-2 Annual - 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):	821.0029	821.0029	821.0029	821.0029	821.0029	821.0029	821.0029	821.0029	821.0029	821.0029	821.0029	821.0029
Vapor Density (lb/cu ft):	0.0024	0.0024	0.0024	0.0024	0.0024	0.0024	0.0024	0.0024	0.0024	0.0024	0.0024	0.0024
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:	0.9698	0.9698	0.9698	0.9698	0.9698	0.9698	0.9698	0.9698	0.9698	0.9698	0.9698	0.9698
Tank Vapor Space Volume:												
Vapor Space Volume (cu ft):	821.0029	821.0029	821.0029	821.0029	821.0029	821.0029	821.0029	821.0029	821.0029	821.0029	821.0029	821.0029
Tank Diameter (ft):	28.0000	28.0000	28.0000	28.0000	28.0000	28.0000	28.0000	28.0000	28.0000	28.0000	28.0000	28.0000
Vapor Space Outage (ft):	1.3333	1.3333	1.3333	1.3333	1.3333	1.3333	1.3333	1.3333	1.3333	1.3333	1.3333	1.3333
Tank Shell Height (ft):	29.0000	29.0000	29.0000	29.0000	29.0000	29.0000	29.0000	29.0000	29.0000	29.0000	29.0000	29.0000
Average Liquid Height (ft):	28.0000	28.0000	28.0000	28.0000	28.0000	28.0000	28.0000	28.0000	28.0000	28.0000	28.0000	28.0000
Roof Outage (ft):	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333
Roof Outage (Cone Roof):												
Roof Outage (ft):	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333
Roof Height (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 Slope (ft/ft):	0.0700	0.0700	0.0700	0.0700	0.0700	0.0700	0.0700	0.0700	0.0700	0.0700	0.0700	0.0700
Shell Radius (ft):	14.0000	14.0000	14.0000	14.0000	14.0000	14.0000	14.0000	14.0000	14.0000	14.0000	14.0000	14.0000
Vapor Density:												
Vapor Density (lb/cu ft):	0.0024	0.0024	0.0024	0.0024	0.0024	0.0024	0.0024	0.0024	0.0024	0.0024	0.0024	0.0024
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):	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401
Daily Avg. Liquid Surface Temp. (deg. R):	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700
Daily Average Ambient Temp. (deg. F):	45.0000	50.5000	54.0500	59.3000	66.7000	73.3000	77.6500	76.8000	72.7000	64.5500	53.0500	44.9500
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):	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700
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):	597.0000	939.0000	1,458.0000	2,004.0000	2,435.0000	2,684.0000	2,688.0000	2,368.0000	1,907.0000	1,315.0000	782.0000	538.0000
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):	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401
Vapor Pressure at Daily Minimum Liquid Surface Temperature (psia):	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401
Vapor Pressure at Daily Maximum Liquid Surface Temperature (psia):	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401
Daily Avg. Liquid Surface Temp. (deg R):	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700
Daily Min. Liquid Surface Temp. (deg R):	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700
Daily Max. Liquid Surface Temp. (deg R):	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700
Daily Ambient Temp. Range (deg. R):	16.0000	20.4000	22.9000	27.2000	29.8000	31.6000	33.5000	32.2000	30.4000	27.5000	20.7000	15.7000
Vented Vapor Saturation Factor:												
Vented Vapor Saturation Factor:	0.9698	0.9698	0.9698	0.9698	0.9698	0.9698	0.9698	0.9698	0.9698	0.9698	0.9698	0.9698
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401
Vapor Space Outage (ft):	1.3333	1.3333	1.3333	1.3333	1.3333	1.3333	1.3333	1.3333	1.3333	1.3333	1.3333	1.3333
Working Losses (lb):	518.1689	518.1689	518.1689	518.1689	518.1689	518.1689	518.1689	518.1689	518.1689	518.1689	518.1689	518.1689

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):	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401
Net Throughput (gal/mo.)	7,845,828.0480	7,845,828.0480	7,845,828.0480	7,845,828.0480	7,845,828.0480	7,845,828.0480	7,845,828.0480	7,845,828.0480	7,845,828.0480	7,845,828.0480	7,845,828.0480	7,845,828.0480
Annual Turnovers:	730.0000	730.0000	730.0000	730.0000	730.0000	730.0000	730.0000	730.0000	730.0000	730.0000	730.0000	730.0000
Turnover Factor:	0.2078	0.2078	0.2078	0.2078	0.2078	0.2078	0.2078	0.2078	0.2078	0.2078	0.2078	0.2078
Maximum Liquid Volume (gal):	128,972.5159	128,972.5159	128,972.5159	128,972.5159	128,972.5159	128,972.5159	128,972.5159	128,972.5159	128,972.5159	128,972.5159	128,972.5159	128,972.5159
Maximum Liquid Height (ft):	28.0000	28.0000	28.0000	28.0000	28.0000	28.0000	28.0000	28.0000	28.0000	28.0000	28.0000	28.0000
Tank Diameter (ft):	28.0000	28.0000	28.0000	28.0000	28.0000	28.0000	28.0000	28.0000	28.0000	28.0000	28.0000	28.0000
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):	518.1689	518.1689	518.1689	518.1689	518.1689	518.1689	518.1689	518.1689	518.1689	518.1689	518.1689	518.1689

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-956-333-2 Annual - Vertical Fixed Roof Tank

	Losses(lbs)		
Components	Working Loss	Breathing Loss	Total Emissions
Wine 23.9 % Vol Alcohol	6,218.03	0.00	6,218.03

Daily VOC Emissions for 98% - Distilled Spirits Storage

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

Identification

User Identification:	The Wine Group, Inc (N-956-334-2)
City:	Ripon
State:	California
Company:	The Wine Group, Inc
Type of Tank:	Vertical Fixed Roof Tank
Description:	60,361 gallons insulated stainless steel storage tank #302 with P/V Valve

Tank Dimensions

Shell Height (ft):	29.00
Diameter (ft):	19.08
Liquid Height (ft):	29.00
Avg. Liquid Height (ft):	29.00
Volume (gallons):	62,048.03
Turnovers:	62.00
Net Throughput(gal/yr):	3,846,978.16
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:	Cono
Height (ft):	0.00
Slope (ft/ft) (Cone Roof):	0.00

Breather Vent Settings

Vacuum Settings (ps.g):	0.00
Pressure Settings (psig):	0.00

Meteorological Data used in Emissions Calculations: Stockton, California (Avg Atmospheric Pressure = 14.72 psia)

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

**The Wine Group, Inc. (N-956-334-2) - Vertical Fixed Roof Tank
Ripon, California**

Mixture/Component	Month	Daily Liquid Surf Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol Weight	Liquid Mass Fract	Vapor Mass Fract	Mol Weight	Basis for Vapor Pressure Calculations
		Avg	Min	Max		Avg	Min	Max					
Wine 88.0 % Vol Alcohol	Jul	77.30	77.30	77.30	77.30	1.1511	1.1511	1.1511	44.1870		43.65	Option 1: VP70 = 00826 VP80 = 1.24097	

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

The Wine Group, Inc. (N-956-334-2) - Vertical Fixed Roof Tank
Ripon, California

Month	January	February	March	April	May	June	July	August	September	October	November	December
Standing Losses (lb)							0.0000					
Vapor Space Volume (cu ft)							0.0000					
Vapor Density (lb/cu ft)							0.0088					
Vapor Space Expansion Factor							0.0000					
Vented Vapor Saturation Factor							1.0000					
Tank Vapor Space Volume							0.0000					
Vapor Space Volume (cu ft)							19.0433					
Tank Diameter (ft)							0.0000					
Vapor Space Outage (ft)							29.0000					
Tank Shell Height (ft)							28.0000					
Average Liquid Height (ft)							0.0000					
Roof Outage (ft)							0.0000					
Roof Outage (Cone Roof)							0.0000					
Roof Outage (ft)							0.0000					
Roof Height (ft)							0.0000					
Roof Slope (ft/ft)							0.5417					
Shell Radius (ft)												
Vapor Density							0.0088					
Vapor Density (lb/cu ft)							44.1670					
Vapor Molecular Weight (lb/lb-mole)												
Vapor Pressure at Daily Average Liquid Surface Temperature (psia)							1.1511					
Daily Avg. Liquid Surface Temp (deg R)							538.9700					
Daily Average Ambient Temp (deg F)							77.6500					
Ideal Gas Constant R (psia cu ft / (lb-mol deg R))							10.731					
Liquid Bulk Temperature (deg R)							530.9700					
Tank Paint Solar Absorptance (Shell)							0.1700					
Tank Paint Solar Absorptance (Roof)							0.1700					
Daily Total Solar Insulation Factor (Btu/sq ft day)							2,888.0000					
Vapor Space Expansion Factor							0.0000					
Vapor Space Expansion Factor							0.0000					
Daily Vapor Temperature Range (deg R)							0.0000					
Daily Vapor Pressure Range (psia)							0.0000					
Breathable Vapor Pacing Range (psia)							0.0000					
Vapor Pressure at Daily Average Liquid Surface Temperature (psia)							1.1511					
Vapor Pressure at Daily Minimum Liquid Surface Temperature (psia)							1.1511					
Vapor Pressure at Daily Maximum Liquid Surface Temperature (psia)							1.1511					
Daily Avg. Liquid Surface Temp (deg R)							538.9700					
Daily Min. Liquid Surface Temp (deg R)							530.9700					
Daily Max. Liquid Surface Temp (deg R)							538.9700					
Daily Ambient Temp Range (deg R)							33.5000					
Vented Vapor Saturation Factor							1.0000					
Vented Vapor Saturation Factor							1.0000					
Vapor Pressure at Daily Average Liquid Surface Temperature (psia)							1.1511					
Vapor Space Outage (ft)							0.0000					
Working Losses (lb)							3,030.8510					
Vapor Molecular Weight (lb/lb-mole)							44.1670					
Vapor Pressure at Daily Average Liquid Surface Temperature (psia)							1.1511					
Net Throughput (gal/mo)							3,846,878.1570					
Annual Turnover							02.0000					
Turnover Factor							0.8505					
Maximum Liquid Volume (gal)							62,048.0348					
Maximum Liquid Height (ft)							28.0000					
Tank Diameter (ft)							19.0533					
Working Loss Product Factor							1.0000					
Total Losses (lb)							3,030.8510					

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

Emissions Report for: July

The Wine Group, Inc. (N-956-334-2) - Vertical Fixed Roof Tank
Ripon, California

Components	Losses(lbs)		
	Working Loss	Breathing Loss	Total Emissions
Wine 98.0 % Vol Alcohol	3,030.85	0.00	3,030.85

Daily VOC Emissions for 23.9% Wine Storage.

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

Identification

User Identification:	The Wine Group, Inc. (N-956-334-2)
City:	Ripon
State:	California
Company:	The Wine Group, Inc.
Type of Tank:	Vertical Fixed Roof Tank
Description:	60,361 gallons insulated stainless steel storage tank #302 with PV Valve

Tank Dimensions

Shell Height (ft):	29.00
Diameter (ft):	19.08
Liquid Height (ft):	29.00
Avg Liquid Height (ft):	29.00
Volume (gallons):	62,048.03
Turnovers:	62.00
Net Throughput(gal/yr):	3,846,978.16
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)	0.00
Slope (ft/ft) (Cone Roof)	0.00

Breather Vent Settings

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

Meteorological Data used in Emissions Calculations: Stockton, California (Avg Atmospheric Pressure = 14.72 psia)

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

**The Wine Group, Inc. (N-956-334-2) - Vertical Fixed Roof Tank
Ripon, California**

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol Weight	Basis for Vapor Pressure Calculations
		Avg	Min	Max		Avg	Min	Max					
Wine 23.9 % Vol Alcohol	Jul	77.30	77.30	77.30	77.30	0.7556	0.7556	0.7556	30.3355			20.45	Option 1: VP70 = 56508 VP60 = 81859

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

The Wine Group, Inc. (N-956-334-2) - Vertical Fixed Roof Tank
Ripon, California

Month	January	February	March	April	May	June	July	August	September	October	November	December
Standing Losses (lb)							0.0000					
Vapor Space Volume (cu ft)							0.0000					
Vapor Density (lb/cu ft)							0.0040					
Vapor Space Expansion Factor							0.0000					
Verted Vapor Saturation Factor							1.0000					
Tank Vapor Space Volume							0.0000					
Vapor Space Volume (cu ft)							19.0833					
Tank Diameter (ft)							0.0000					
Vapor Space Outage (ft)							29.0000					
Tank Shell Height (ft)							29.0000					
Average Liquid Height (ft)							0.0000					
Roof Outage (ft)							0.0000					
Roof Outage (Cone Roof)							0.0000					
Roof Outage (ft)							0.0000					
Roof Height (ft)							0.0000					
Roof Slope (ft/ft)							0.5417					
Shell Radius (ft)												
Vapor Density							0.0040					
Vapor Density (lb/cu ft)							30.3355					
Vapor Molecular Weight (lb/lb-mole)							0.7556					
Vapor Pressure at Daily Average Liquid Surface Temperature (psia)							536.9700					
Daily Avg Liquid Surface Temp (deg R)							77.6500					
Daily Average Ambient Temp (deg F)							10.731					
Ideal Gas Constant R (psia-cu-ft/lb-mole-deg R)							536.9700					
Liquid Bulk Temperature (deg R)							0.1700					
Tank Paint Solar Absorptance (Shell)							0.1700					
Tank Paint Solar Absorptance (Roof)							2.668.0000					
Daily Total Solar Insulation Factor (Btu/sq-ft-day)												
Vapor Space Expansion Factor							0.0000					
Vapor Space Expansion Factor							0.0000					
Daily Vapor Temperature Range (deg R)							0.0000					
Daily Vapor Pressure Range (psia)							0.0000					
Breather Vent Press. Setting Range (psia)							0.7556					
Vapor Pressure at Daily Average Liquid Surface Temperature (psia)							0.7556					
Vapor Pressure at Daily Minimum Liquid Surface Temperature (psia)							536.9700					
Vapor Pressure at Daily Maximum Liquid Surface Temperature (psia)							536.9700					
Daily Avg Liquid Surface Temp (deg R)							536.9700					
Daily Min Liquid Surface Temp (deg R)							33.5000					
Daily Max Liquid Surface Temp (deg R)												
Daily Ambient Temp Range (deg R)												
Verted Vapor Saturation Factor							1.0000					
Verted Vapor Saturation Factor							0.7556					
Vapor Pressure at Daily Average Liquid Surface Temperature (psia)							0.0000					
Vapor Space Outage (ft)												
Working Losses (lb)							1,365.8223					
Vapor Molecular Weight (lb/lb-mole)							30.3355					
Vapor Pressure at Daily Average Liquid Surface Temperature (psia)							0.7556					
Net Throughput (gal/mo)							3,840.678.1570					
Annual Turnovers							02.0000					
Turnover Factor							0.6505					
Maximum Liquid Volume (gal)							62,048.0348					
Maximum Liquid Height (ft)							29.0000					
Tank Diameter (ft)							19.0833					
Working Loss Product Factor							1.0000					
Total Losses (lb):							1,365.8223					

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

Emissions Report for: July

The Wine Group, Inc. (N-956-334-2) - Vertical Fixed Roof Tank
Ripon, California

Components	Losses(lbs)		Total Emissions
	Working Loss	Breathing Loss	
Wine 23.9% Vol Alcohol	1,365.82	0.00	1,365.82

Annual VOC for 98% - Distilled Spirits Storage

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

Identification

User Identification:	The Wine Group, Inc. (N-956-334-2)
City:	Ripon
State:	California
Company:	The Wine Group, Inc
Type of Tank:	Vertical Fixed Roof Tank
Description:	60,361 gallons insulated stainless steel storage tank #302 with PV Valve

Tank Dimensions

Shell Height (ft):	29.00
Diameter (ft):	19.00
Liquid Height (ft):	29.00
Avg. Liquid Height (ft):	29.00
Volume (gallons):	62,048.03
Turnovers:	9.67
Net Throughput(gal/yr):	600,000.00
Is Tank Heated (y/n):	Y

Paint Characteristics

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

Roof Characteristics

Type:	Cone
Height (ft)	0.00
Slope (ft/ft) (Cone Roof)	0.00

Breather Vent Settings

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

Meteorological Data used in Emissions Calculations: Stockton, California (Avg Atmospheric Pressure = 14.72 psia)

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

The Wine Group, Inc. (N-956-334-2) - Vertical Fixed Roof Tank
Ripon, California

Mixture/Component	Month	Daily Liquid Surf Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol Weight	Liquid Mass Fract	Vapor Mass Fract	Mol Weight	Basis for Vapor Pressure Calculations
		Avg	Min	Max		Avg	Min	Max					
Wine 98.0 % Vol Alcohol	Jan	61.60	61.60	61.60	61.60	0.6970	0.6970	0.6970	44.1870			43.85	Option 1: VP60 = 65673 VP70 = 00826
Wine 98.0 % Vol Alcohol	Feb	61.60	61.60	61.60	61.60	0.6970	0.6970	0.6970	44.1870			43.85	Option 1: VP60 = 65673 VP70 = 00826
Wine 98.0 % Vol Alcohol	Mar	61.60	61.60	61.60	61.60	0.6970	0.6970	0.6970	44.1870			43.85	Option 1: VP60 = 65673 VP70 = 00826
Wine 98.0 % Vol Alcohol	Apr	61.60	61.60	61.60	61.60	0.6970	0.6970	0.6970	44.1870			43.85	Option 1: VP60 = 65673 VP70 = 00826
Wine 98.0 % Vol Alcohol	May	61.60	61.60	61.60	61.60	0.6970	0.6970	0.6970	44.1870			43.85	Option 1: VP60 = 65673 VP70 = 00826
Wine 98.0 % Vol Alcohol	Jun	61.60	61.60	61.60	61.60	0.6970	0.6970	0.6970	44.1870			43.85	Option 1: VP60 = 65673 VP70 = 00826
Wine 98.0 % Vol Alcohol	Jul	61.60	61.60	61.60	61.60	0.6970	0.6970	0.6970	44.1870			43.85	Option 1: VP60 = 65673 VP70 = 00826
Wine 98.0 % Vol Alcohol	Aug	61.60	61.60	61.60	61.60	0.6970	0.6970	0.6970	44.1870			43.85	Option 1: VP60 = 65673 VP70 = 00826
Wine 98.0 % Vol Alcohol	Sep	61.60	61.60	61.60	61.60	0.6970	0.6970	0.6970	44.1870			43.85	Option 1: VP60 = 65673 VP70 = 00826
Wine 98.0 % Vol Alcohol	Oct	61.60	61.60	61.60	61.60	0.6970	0.6970	0.6970	44.1870			43.85	Option 1: VP60 = 65673 VP70 = 00826
Wine 98.0 % Vol Alcohol	Nov	61.60	61.60	61.60	61.60	0.6970	0.6970	0.6970	44.1870			43.85	Option 1: VP60 = 65673 VP70 = 00826
Wine 98.0 % Vol Alcohol	Dec	61.60	61.60	61.60	61.60	0.6970	0.6970	0.6970	44.1870			43.85	Option 1: VP60 = 65673 VP70 = 00826

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

The Wine Group, Inc. (N-956-334-2) - Vertical Fixed Roof Tank
Ripon, 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)	2.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vapor Density (lb/cu ft)	0.0055	0.0055	0.0055	0.0055	0.0055	0.0055	0.0055	0.0055	0.0055	0.0055	0.0055	0.0055
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	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 Vapor Space Volume												
Vapor Space Volume (cu ft)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Tank Diameter (ft)	19.0833	19.0833	19.0833	19.0833	19.0833	19.0833	19.0833	19.0833	19.0833	19.0833	19.0833	19.0833
Vapor Space Outage (ft)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Tank Shell Height (ft)	29.0000	29.0000	29.0000	29.0000	29.0000	29.0000	29.0000	29.0000	29.0000	29.0000	29.0000	29.0000
Average Liquid Height (ft)	29.0000	29.0000	29.0000	29.0000	29.0000	29.0000	29.0000	29.0000	29.0000	29.0000	29.0000	29.0000
Roof Outage (ft)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Roof Outage (Cone Roof)												
Roof Outage (ft)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Roof Height (ft)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Roof Slope (deg)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Shell Radius (ft)	9.5417	9.5417	9.5417	9.5417	9.5417	9.5417	9.5417	9.5417	9.5417	9.5417	9.5417	9.5417
Vapor Density												
Vapor Density (lb/cu ft)	0.0055	0.0055	0.0055	0.0055	0.0055	0.0055	0.0055	0.0055	0.0055	0.0055	0.0055	0.0055
Vapor Molecular Weight (lb/mole)	44.1870	44.1870	44.1870	44.1870	44.1870	44.1870	44.1870	44.1870	44.1870	44.1870	44.1870	44.1870
Vapor Pressure at Daily Average Liquid Surface Temperature (psia)	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970
Daily Avg. Liquid Surface Temp. (deg R)	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700
Daily Average Ambient Temp. (deg F)	45.0000	50.0000	54.0000	59.0000	66.0000	73.0000	77.0000	76.0000	72.0000	64.5000	53.5000	44.5000
Ideal Gas Constant (ft ³ lb/mole-deg R)	10.7310	10.7310	10.7310	10.7310	10.7310	10.7310	10.7310	10.7310	10.7310	10.7310	10.7310	10.7310
Liquid Bulk Temperature (deg R)	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700
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 (Roof only)	597.0000	939.0000	1,458.0000	2,014.0000	2,435.0000	2,684.0000	2,668.0000	2,368.0000	1,907.0000	1,315.0000	782.0000	538.0000
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
Headline Vapor Press. Spring 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)	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970
Vapor Pressure at Daily Maximum Liquid Surface Temperature (psia)	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970
Vapor Pressure at Daily Minimum Liquid Surface Temperature (psia)	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970
Daily Avg. Liquid Surface Temp. (deg R)	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700
Daily Min. Liquid Surface Temp. (deg R)	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700
Daily Max. Liquid Surface Temp. (deg R)	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700
Daily Ambient Temp. Range (deg R)	10.2000	20.4000	22.0000	27.2000	29.8000	31.8000	33.5000	32.2000	30.4000	27.5000	20.7000	15.7000
Vented Vapor Saturation Factor												
Vented Vapor Saturation 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
Vapor Pressure at Daily Average Liquid Surface Temperature (psia)	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970
Vapor Space Outage (ft)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Working Losses (lb)												
Working Losses (lb)	36.6633	36.6633	36.6633	36.6633	36.6633	36.6633	36.6633	36.6633	36.6633	36.6633	36.6633	36.6633
Vapor Molecular Weight (lb/mole)	44.1870	44.1870	44.1870	44.1870	44.1870	44.1870	44.1870	44.1870	44.1870	44.1870	44.1870	44.1870
Vapor Pressure at Daily Average Liquid Surface Temperature (psia)	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970	0.6970
Net Throughput (gal/mo)	50,000.0000	50,000.0000	50,000.0000	50,000.0000	50,000.0000	50,000.0000	50,000.0000	50,000.0000	50,000.0000	50,000.0000	50,000.0000	50,000.0000
Annual Turnover	9.6699	9.6699	9.6699	9.6699	9.6699	9.6699	9.6699	9.6699	9.6699	9.6699	9.6699	9.6699
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)	62,048.0348	62,048.0348	62,048.0348	62,048.0348	62,048.0348	62,048.0348	62,048.0348	62,048.0348	62,048.0348	62,048.0348	62,048.0348	62,048.0348
Maximum Liquid Height (ft)	29.0000	29.0000	29.0000	29.0000	29.0000	29.0000	29.0000	29.0000	29.0000	29.0000	29.0000	29.0000
Tank Diameter (ft)	19.0833	19.0833	19.0833	19.0833	19.0833	19.0833	19.0833	19.0833	19.0833	19.0833	19.0833	19.0833
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)												
Total Losses (lb)	36.6633	36.6633	36.6633	36.6633	36.6633	36.6633	36.6633	36.6633	36.6633	36.6633	36.6633	36.6633

**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

**The Wine Group, Inc. (N-956-334-2) - Vertical Fixed Roof Tank
Ripon, California**

Components	Losses(lbs)		Total Emissions
	Working Loss	Breathing Loss	
Wine 98.0 % Vol Alcohol	439.96	0.00	439.96

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

Identification

User Identification: N-956-334-2 Annual
City:
State:
Company:
Type of Tank: Vertical Fixed Roof Tank
Description:

Tank Dimensions

Shell Height (ft): 29.00
Diameter (ft): 19.08
Liquid Height (ft): 29.00
Avg. Liquid Height (ft): 29.00
Volume (gallons): 59,386.58
Turnovers: 730.00
Net Throughput(gal/yr): 43,352,202.94
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): 1.00
Slope (ft/ft) (Cone Roof): 0.10

Breather Vent Settings

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

Meteorological Data used in Emissions Calculations: Stockton, California (Avg Atmospheric Pressure = 14.72 psia)

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

N-956-334-2 Annual - Vertical Fixed Roof Tank

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol. Weight.	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
		Avg.	Min.	Max.		Avg.	Min.	Max.					
Wne 23.9 % Vol Alcohol	Jan	61.60	61.60	61.60	61.60	0.4401	0.4401	0.4401	30.3355			20.45	Option 1: VP60 = .4125 VP70 = .58508
Wne 23.9 % Vol Alcohol	Feb	61.60	61.60	61.60	61.60	0.4401	0.4401	0.4401	30.3355			20.45	Option 1: VP60 = .4125 VP70 = .58508
Wne 23.9 % Vol Alcohol	Mar	61.60	61.60	61.60	61.60	0.4401	0.4401	0.4401	30.3355			20.45	Option 1: VP60 = .4125 VP70 = .58508
Wne 23.9 % Vol Alcohol	Apr	61.60	61.60	61.60	61.60	0.4401	0.4401	0.4401	30.3355			20.45	Option 1: VP60 = .4125 VP70 = .58508
Wne 23.9 % Vol Alcohol	May	61.60	61.60	61.60	61.60	0.4401	0.4401	0.4401	30.3355			20.45	Option 1: VP60 = .4125 VP70 = .58508
Wne 23.9 % Vol Alcohol	Jun	61.60	61.60	61.60	61.60	0.4401	0.4401	0.4401	30.3355			20.45	Option 1: VP60 = .4125 VP70 = .58508
Wne 23.9 % Vol Alcohol	Jul	61.60	61.60	61.60	61.60	0.4401	0.4401	0.4401	30.3355			20.45	Option 1: VP60 = .4125 VP70 = .58508
Wne 23.9 % Vol Alcohol	Aug	61.60	61.60	61.60	61.60	0.4401	0.4401	0.4401	30.3355			20.45	Option 1: VP60 = .4125 VP70 = .58508
Wne 23.9 % Vol Alcohol	Sep	61.60	61.60	61.60	61.60	0.4401	0.4401	0.4401	30.3355			20.45	Option 1: VP60 = .4125 VP70 = .58508
Wne 23.9 % Vol Alcohol	Oct	61.60	61.60	61.60	61.60	0.4401	0.4401	0.4401	30.3355			20.45	Option 1: VP60 = .4125 VP70 = .58508
Wne 23.9 % Vol Alcohol	Nov	61.60	61.60	61.60	61.60	0.4401	0.4401	0.4401	30.3355			20.45	Option 1: VP60 = .4125 VP70 = .58508
Wne 23.9 % Vol Alcohol	Dec	61.60	61.60	61.60	61.60	0.4401	0.4401	0.4401	30.3355			20.45	Option 1: VP60 = .4125 VP70 = .58508

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

N-956-334-2 Annual - 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):	95.3071	95.3071	95.3071	95.3071	95.3071	95.3071	95.3071	95.3071	95.3071	95.3071	95.3071	95.3071
Vapor Density (lb/cu ft):	0.0024	0.0024	0.0024	0.0024	0.0024	0.0024	0.0024	0.0024	0.0024	0.0024	0.0024	0.0024
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:	0.9923	0.9923	0.9923	0.9923	0.9923	0.9923	0.9923	0.9923	0.9923	0.9923	0.9923	0.9923
Tank Vapor Space Volume												
Vapor Space Volume (cu ft):	95.3071	95.3071	95.3071	95.3071	95.3071	95.3071	95.3071	95.3071	95.3071	95.3071	95.3071	95.3071
Tank Diameter (ft):	19.0800	19.0800	19.0800	19.0800	19.0800	19.0800	19.0800	19.0800	19.0800	19.0800	19.0800	19.0800
Vapor Space Outage (ft):	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333
Tank Shell Height (ft):	29.0000	29.0000	29.0000	29.0000	29.0000	29.0000	29.0000	29.0000	29.0000	29.0000	29.0000	29.0000
Average Liquid Height (ft):	29.0000	29.0000	29.0000	29.0000	29.0000	29.0000	29.0000	29.0000	29.0000	29.0000	29.0000	29.0000
Roof Outage (ft):	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333
Roof Outage (Cone Roof)												
Roof Outage (ft):	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333
Roof Height (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 Slope (ft/ft):	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000
Shell Radius (ft):	9.5400	9.5400	9.5400	9.5400	9.5400	9.5400	9.5400	9.5400	9.5400	9.5400	9.5400	9.5400
Vapor Density												
Vapor Density (lb/cu ft):	0.0024	0.0024	0.0024	0.0024	0.0024	0.0024	0.0024	0.0024	0.0024	0.0024	0.0024	0.0024
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):	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401
Daily Avg. Liquid Surface Temp. (deg. R):	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700
Daily Average Ambient Temp. (deg. F):	45.0000	50.5000	54.0500	59.3000	66.7000	73.3000	77.6500	76.8000	72.7000	64.5500	53.0500	44.9500
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):	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700
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):	597.0000	939.0000	1,458.0000	2,004.0000	2,435.0000	2,684.0000	2,688.0000	2,368.0000	1,907.0000	1,315.0000	782.0000	538.0000
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):	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401
Vapor Pressure at Daily Minimum Liquid Surface Temperature (psia):	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401
Vapor Pressure at Daily Maximum Liquid Surface Temperature (psia):	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401
Daily Avg. Liquid Surface Temp. (deg R):	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700
Daily Min. Liquid Surface Temp. (deg R):	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700
Daily Max. Liquid Surface Temp. (deg R):	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700
Daily Ambient Temp. Range (deg. R):	16.0000	20.4000	22.9000	27.2000	29.8000	31.6000	33.5000	32.2000	30.4000	27.5000	20.7000	15.7000
Vented Vapor Saturation Factor												
Vented Vapor Saturation Factor:	0.9923	0.9923	0.9923	0.9923	0.9923	0.9923	0.9923	0.9923	0.9923	0.9923	0.9923	0.9923
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401
Vapor Space Outage (ft):	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333
Working Losses (lb):	238.5956											

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):	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401	0.4401
Net Throughput (gal/mo.):	3,612,683.5780	3,612,683.5780	3,612,683.5780	3,612,683.5780	3,612,683.5780	3,612,683.5780	3,612,683.5780	3,612,683.5780	3,612,683.5780	3,612,683.5780	3,612,683.5780	3,612,683.5780
Annual Turnovers:	730.0000	730.0000	730.0000	730.0000	730.0000	730.0000	730.0000	730.0000	730.0000	730.0000	730.0000	730.0000
Turnover Factor:	0.2078	0.2078	0.2078	0.2078	0.2078	0.2078	0.2078	0.2078	0.2078	0.2078	0.2078	0.2078
Maximum Liquid Volume (gal):	59,386.5794	59,386.5794	59,386.5794	59,386.5794	59,386.5794	59,386.5794	59,386.5794	59,386.5794	59,386.5794	59,386.5794	59,386.5794	59,386.5794
Maximum Liquid Height (ft):	29.0000	29.0000	29.0000	29.0000	29.0000	29.0000	29.0000	29.0000	29.0000	29.0000	29.0000	29.0000
Tank Diameter (ft):	19.0800	19.0800	19.0800	19.0800	19.0800	19.0800	19.0800	19.0800	19.0800	19.0800	19.0800	19.0800
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):	238.5956											

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-956-334-2 Annual - Vertical Fixed Roof Tank

	Losses(lbs)		
Components	Working Loss	Breathing Loss	Total Emissions
Wine 23.9 % Vol Alcohol	2,863.15	0.00	2,863.15

Appendix B

BACT Guidelines 5.4.13 and 5.4.15 and Top Down BACT Analysis

San Joaquin Valley
Unified Air Pollution Control District

Best Available Control Technology (BACT) Guideline 5.4.13*

Last Update: 9/26/2011

Wine Storage Tank - Non-Wood Material**

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)	

**This guideline is applicable to a wine storage tank that is not constructed out of wooden materials.
 ***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 of diurnal temperature variations. Tanks made entirely of non-conducting materials such as concrete (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 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 Distilled Spirits Storage VOC Emissions

Step 1 - Identify All Possible Control Technologies

The SJVUAPCD BACT Clearinghouse guideline 5.4.15, identifies achieved in practice BACT for distilled spirits 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.

***Tanks 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.*

The SJVUAPCD BACT Clearinghouse guideline 5.4.15, identifies technologically feasible BACT for distilled spirits storage tanks as follows:

- 2) Refrigerated storage (70% control)
- 3) Capture of VOCs and absorption or equivalent (90% control)
- 4) Capture of VOCs and carbon adsorption or equivalent (95% control)
- 5) Capture of VOCs and thermal or catalytic oxidation or equivalent (98% 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 refrigerated storage	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.	Baseline (Achieved-in-Practice)

Step 4 - Cost Effectiveness Analysis

A cost-effective analysis is performed for control technologies which are more effective than meeting the requirements of option 1 (achieved-in-practice BACT), as proposed by the facility.

Collection System Capital Investment (based on ductwork):

A common feature of all technically feasible options is that they require installation of a collection system for delivering the VOCs from the tanks to the common control device.

The following cost information was provided by the facility, and the bases of the cost information include:

- The costs for the ductwork and the required clean-in-place system are based on information from the 2005 Eichleay Study. The 2005 Eichleay Study was used in development of District Rule 4694 *Wine Fermentation and Storage Tanks* and includes substantial information on the costs and details of the potential application of VOC controls to wineries and addresses many of the technical issues of the general site specific factors for wineries.
- The collection system consists of stainless steel ductwork (stainless steel is required due to food grade product status) with isolation valving, connecting the 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.
- One of the major concerns of a manifold duct system is microorganisms spoiling the product, and transferring from one tank to another. It is possible to completely ruin a tank of one special type of highest proof distilled spirits if a few hundred gallons of medium grade distilled spirits were back fed through the duct. It is necessary to design into the system a positive disconnect of the ducting system when the tanks are not being filled. There are a number of ways this can be done. In this case, an automatic butterfly valve with a physical spool to disconnect the tank from the duct will be utilized.

For both tanks:

Connection from tank to main duct = [2 tanks x (50 feet from tank to main duct)] x \$61.00/foot
= \$6,100

Connection from last tank to control device = 50 feet x \$61.00/foot
= \$3,050

Main duct = (19 feet diameter/2) x \$61.00/foot
= \$580

Unit installed cost for 6 inch butterfly valve = \$2,125/valve x 2 valves
= \$4,250

Unit installed cost one foot removable spool = \$500/tank x 2 tanks
= \$1,000

Knockout drum = \$46,300

Duct support allowance = \$5,000/tank x 2 tanks = \$10,000

Total = \$6,100 + \$3,050 + \$580 + \$4,250 + \$1,000 + \$46,300 + \$10,000 = \$71,280

The following cost data is taken from EPA Control Cost Manual, Sixth Edition (EPA/452/B 02-001)

Ductwork	
Cost Description	Cost (\$)
Duct Estimate from Eichleay Study 2005 Data	\$71,280
Adjusting factor from 2005 dollars to 2015 dollars (0% inflation/year, conservative assumption)	1.00
Inflation adjusted duct cost	\$71,280
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	\$71,280
Instrumentation 10%	\$7,128
Sales Tax 3.8125% ¹	\$2,718
Freight 5%	\$3,564
Purchased equipment cost	\$84,690
Foundations & supports 8%	\$6,775
Handling & erection 14%	\$11,857
Electrical 4%	\$3,388
Piping 2%	\$1,694
Painting 1%	\$ 847
Insulation 1%	\$ 847
Direct installation costs	\$25,408
Total Direct Costs	\$110,098
Indirect Costs (IC)	
Engineering 10%	\$8,469
Construction and field expenses 5%	\$4,235
Contractor fees 10%	\$8,469
Start-up 2%	\$1,694
Performance test 1%	\$ 847
Contingencies 3%	\$2,541
Total Indirect Costs	\$26,255
Total Capital Investment (TCI) (DC + IC)	\$136,353

¹ Pollution control equipment is qualify for CA tax partial exemption, and the exemption rate is 4.1875%, so the reduced sales tax rate is equal 3.8125% (8.000% - 4.1875%). http://www.boe.ca.gov/sutax/manufacturing_exemptions.htm#Purchasers

Annualized Capital Investment = Initial Capital Investment x Amortization Factor

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

Therefore,

$$\text{Annualized Capital Investment for Ductwork} = \$136,353 \times 0.163 = \$22,226$$

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.

Clean-In-Place (CIP) System	
Cost Description	Cost (\$)
Current cost of CIP system ²	\$20,000
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	\$20,000
Instrumentation 10%	\$2,000
Sales Tax 3.8125%	\$ 763
Freight 5%	\$1,000
Purchased equipment cost	\$23,763
Foundations & supports 8%	\$1,901
Handling & erection 14%	\$3,327
Electrical 4%	\$ 951
Piping 2%	\$ 475
Painting 1%	\$ 238
Insulation 1%	\$ 238
Direct installation costs	\$7,130
Total Direct Costs	\$30,893
Indirect Costs (IC)	
Engineering 10%	\$2,376
Construction and field expenses 5%	\$1,188
Contractor fees 10%	\$2,376
Start-up 2%	\$ 475
Performance test 1%	\$ 238
Contingencies 3%	\$ 713
Total Indirect Costs	\$7,366
Total Capital Investment (TCI) (DC + IC)	\$38,259

² An Allowance of \$200,000 for a CIP system should be included in the evaluation for a standard tank farm. A ducting system on a tank farm must have that kind of system to maintain sanitation and quality of the product. Because these tanks are storage only, very small and only 2 tanks in the project; the estimate was reduced to \$20,000.

Annualized Capital Investment = Initial Capital Investment x Amortization Factor

Annualized Capital Investment for one CIP System = \$38,259 x 0.163 = \$6,236

Capture of VOCs with Thermal or Catalytic Oxidation/ Carbon Adsorption/Absorption or Condensation (Options 1, 2, 3, and 4)

A common feature of all of these options is that they require installation of a collection system for delivering the VOCs from the tanks to the control device and a CIP system. The analysis below indicates that these options are not cost effective by showing that just the annualized direct cost for the ductwork of the collection system, supporting structural steel, foundations and a CIP system alone are too large, when considered at the District's cost effectiveness threshold for VOC BACT, to justify the capital investment required by these options. This approach ignores additional major costs for the actual control device, its installation, instrumentation and control systems for isolation, site specific factors due to limited plot space (known to be a significant factor at all wineries), and operating and maintenance costs for each system. Should all these additional cost factors be included, the calculated cost effectiveness would be substantially higher than indicated below.

Option 1 is capable of a 98% reduction in VOC emissions while the remaining options under consideration have lesser control efficiencies. Showing that all of the options under consideration are not cost effective at a 98% reduction level based on capital investment requirements of ductwork and steel and a CIP system alone is adequate since options other than thermal/catalytic oxidation would be even less cost effective at their actual (lower) reduction levels.

Annual Emission Reduction = Uncontrolled Emissions x 0.98
= 428 lb-VOC/year x 0.98 x ton/2,000 lb
= 0.21 tons-VOC/year

Cost Effectiveness = \$(22,226 + 6,236)/year ÷ 0.21 tons-VOC/year
= \$133,000/ton-VOC

As shown above, the cost of VOC reduction by capture of VOCs with thermal or catalytic oxidation, carbon adsorption, absorption or condensation would be greater than the \$17,500/ton cost effectiveness threshold for VOC in the District BACT policy, based solely on the direct cost required for the collection ducting and a CIP system. As stated above, including any additional cost, which would be expected for any fully operational control system, would only make the control system less cost effective. Therefore these options are 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. These BACT requirements will be placed on the ATC as enforceable conditions.

Appendix C

Compliance Certification

RECEIVED

San Joaquin Valley Unified Air Pollution Control District

TITLE V MODIFICATION - COMPLIANCE CERTIFICATION FORM

I. TYPE OF PERMIT ACTION (Check appropriate box)

- SIGNIFICANT PERMIT MODIFICATION ADMINISTRATIVE AMENDMENT
 MINOR PERMIT MODIFICATION

COMPANY NAME: The Wine Group, LLC dba Franzia Winery	FACILITY ID: N-956
1. Type of Organization: <input checked="" type="checkbox"/> Corporation <input type="checkbox"/> Sole Ownership <input type="checkbox"/> Government <input type="checkbox"/> Partnership <input type="checkbox"/> Utility	
2. Owner's Name: The Wine Group, LLC dba Franzia Winery	
3. Agent to the Owner: Chuck Mitten	

II. COMPLIANCE CERTIFICATION (Read each statement carefully and initial all circles for confirmation):

- Based on information and belief formed after reasonable inquiry, the source identified in this application will continue to comply with the applicable federal requirement(s).
- Based on information and belief formed after reasonable inquiry, the source identified in this application will comply with applicable federal requirement(s) that will become effective during the permit term, on a timely basis.
- Corrected information will be provided to the District when I become aware that incorrect or incomplete information has been submitted.
- Based on information and belief formed after reasonable inquiry, information and statements in the submitted application package, including all accompanying reports, and required certifications are true accurate and complete.

I declare, under penalty of perjury under the laws of the state of California, that the forgoing is correct and true:

Chuck Mitten

Signature of Responsible Official

12/29/15

Date

CHUCK MITTEN

Name of Responsible Official (please print)

PLANT MANAGER

Title of Responsible Official (please print)

Appendix D

Quarterly Net Emissions Change (QNEC)

Quarterly Net Emissions Change (QNEC)

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.

The change in emissions is solely from the distilled spirits storage operation which results in 428 lb-VOC/year which is to be shared between units N-956-333 and -334. Therefore, the QNEC for each unit = $428 \text{ lb-VOC/year} \div 2 \text{ units} \div 4 \text{ qtrs/year} = 53.5 \text{ lb-VOC/qtr}$.

Appendix E

Draft ATCs

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: N-956-333-2

LEGAL OWNER OR OPERATOR: THE WINE GROUP, INC.

MAILING ADDRESS: ATTN: A/P 2827
P O BOX 90
TRACY, CA 95378-0090

LOCATION: 17000 E HIGHWAY 120
RIPON, CA 95366

EQUIPMENT DESCRIPTION:

MODIFICATION OF 128,157 GALLON STAINLESS STEEL WINE STORAGE TANK #301 WITH PRESSURE/VACUUM VALVE AND INSULATION: ADD DISTILLED SPIRITS STORAGE CAPABILITY

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 321 lb, 2nd quarter - 321 lb, 3rd quarter - 321 lb, and fourth quarter - 321 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 2/18/16). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Number S-4661-1 (or a certificate split from this certificate) 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] Federally Enforceable Through Title V Permit

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

Arnaud Marjolle, Director of Permit Services

N-956-333-2 Apr 25 2016 4 43PM - GARCIAJ Joint Inspection NOT Required

5. 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] Federally Enforceable Through Title V Permit
6. 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] Federally Enforceable Through Title V Permit
7. 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] Federally Enforceable Through Title V Permit
8. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
9. The ethanol content of wine stored in this tank shall not exceed 23.9 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The ethanol content of distilled spirits stored in this tank shall not exceed 98.0 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Daily tank throughput, in gallons, shall not exceed the two times the tank capacity stated in the equipment description. [District Rule 2201] Federally Enforceable Through Title V Permit
12. The maximum spirits storage throughput for tanks listed under permit N-956-333 and N-956-334, calculated on a twelve month rolling basis, shall not exceed 1,200,000 gallons per year. [District Rule 2201] Federally Enforceable Through Title V Permit
13. When this tank is used for wine storage, 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, 6.4.2] Federally Enforceable Through Title V Permit
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/spirits transferred, shall be maintained. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
15. Total annual VOC emissions from all wine fermentation and wine storage operations at this facility, calculated on a rolling 12-month total basis, shall not exceed 581,212 lb. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Total annual VOC emissions from wine fermentation operations shall be determined by the following formula: Total annual VOC emissions = (Total Annual Red Wine Production - gallons) x (6.2 lb-VOC/1000 gallons) + (Total Annual White Wine Production - gallons) x (2.5 lb-VOC/1000 gallons). [District Rule 2201] Federally Enforceable Through Title V Permit
17. Total annual VOC emissions from wine storage operations may be determined using the total annual wine throughput and a single storage emissions factor based on the average ethanol content of the annual wine throughput; or using the throughputs for different batches of wine and batch-specific storage emissions factors based on the ethanol content of each batch. [District Rule 2201] Federally Enforceable Through Title V Permit
18. The annual VOC wine storage emission factor for each wine ethanol content shall be calculated using the following equation: $EF = a * P^2 + b * P + c$; where EF is the VOC emission factor in pounds of VOC per 1,000 gallons of wine throughput; and P is the volume percent ethanol of the wine being transferred. For concentrations up to and including 24 volume % (when the ethanol content of wine is 20 volume %, P is equivalent to 0.20), $a = -0.38194$, $b = 0.97917$ and $c = 0$. [District Rule 1070] Federally Enforceable Through Title V Permit
19. Records of the 12-month rolling total fermentation and total storage emissions, including calculation methods and parameters used, shall be maintained and updated monthly. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

20. Records of the twelve month rolling distilled spirits storage throughput shall be maintained and updated monthly. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Separate annual records of total red wine and total white wine produced by fermentation at this facility, based on values reported to the Alcohol and Tobacco Tax and Trade Bureau (TTB), U.S. Department of the Treasury, shall be maintained. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
22. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201 and 4694] Federally Enforceable Through Title V Permit

DRAFT

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: N-956-334-2

LEGAL OWNER OR OPERATOR: THE WINE GROUP, INC.

MAILING ADDRESS: ATTN: A/P 2827
P O BOX 90
TRACY, CA 95378-0090

LOCATION: 17000 E HIGHWAY 120
RIPON, CA 95366

EQUIPMENT DESCRIPTION:

MODIFICATION OF 60,361 GALLON STAINLESS STEEL WINE STORAGE TANK #302 WITH PRESSURE/VACUUM VALVE AND INSULATION: ADD DISTILLED SPIRITS STORAGE CAPABILITY

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 321 lb, 2nd quarter - 321 lb, 3rd quarter - 321 lb, and fourth quarter - 321 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 2/18/16). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Number S-4661-1 (or a certificate split from this certificate) 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] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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Seyed Sadredin, Executive Director, APCO

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Arnaud Marjolle, Director of Permit Services
N-956-334-2 Apr 25 2016 4 43PM - GARCIAJ Joint Inspection NOT Required

5. 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] Federally Enforceable Through Title V Permit
6. 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] Federally Enforceable Through Title V Permit
7. 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] Federally Enforceable Through Title V Permit
8. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
9. The ethanol content of wine stored in this tank shall not exceed 23.9 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The ethanol content of distilled spirits stored in this tank shall not exceed 98.0 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Daily tank throughput, in gallons, shall not exceed the two times the tank capacity stated in the equipment description. [District Rule 2201] Federally Enforceable Through Title V Permit
12. The maximum spirits storage throughput for tanks listed under permit N-956-333 and N-956-334, calculated on a twelve month rolling basis, shall not exceed 1,200,000 gallons per year. [District Rule 2201] Federally Enforceable Through Title V Permit
13. When this tank is used for wine storage, 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, 6.4.2] Federally Enforceable Through Title V Permit
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/spirits transferred, shall be maintained. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
15. Total annual VOC emissions from all wine fermentation and wine storage operations at this facility, calculated on a rolling 12-month total basis, shall not exceed 581,212 lb. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Total annual VOC emissions from wine fermentation operations shall be determined by the following formula: Total annual VOC emissions = (Total Annual Red Wine Production - gallons) x (6.2 lb-VOC/1000 gallons) + (Total Annual White Wine Production - gallons) x (2.5 lb-VOC/1000 gallons). [District Rule 2201] Federally Enforceable Through Title V Permit
17. Total annual VOC emissions from wine storage operations may be determined using the total annual wine throughput and a single storage emissions factor based on the average ethanol content of the annual wine throughput; or using the throughputs for different batches of wine and batch-specific storage emissions factors based on the ethanol content of each batch. [District Rule 2201] Federally Enforceable Through Title V Permit
18. The annual VOC wine storage emission factor for each wine ethanol content shall be calculated using the following equation: $EF = a * P^2 + b * P + c$; where EF is the VOC emission factor in pounds of VOC per 1,000 gallons of wine throughput; and P is the volume percent ethanol of the wine being transferred. For concentrations up to and including 24 volume % (when the ethanol content of wine is 20 volume %, P is equivalent to 0.20), $a = -0.38194$, $b = 0.97917$ and $c = 0$. [District Rule 1070] Federally Enforceable Through Title V Permit
19. Records of the 12-month rolling total fermentation and total storage emissions, including calculation methods and parameters used, shall be maintained and updated monthly. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

20. Records of the twelve month rolling distilled spirits storage throughput shall be maintained and updated monthly. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Separate annual records of total red wine and total white wine produced by fermentation at this facility, based on values reported to the Alcohol and Tobacco Tax and Trade Bureau (TTB), U.S. Department of the Treasury, shall be maintained. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
22. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201 and 4694] Federally Enforceable Through Title V Permit

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