San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

DEC 22 2015

Mr. Bill Nakata
ASV Wines Inc.
1998 Road 152
Delano, CA 93215

Re: Proposed ATC / Certificate of Conformity (Significant Mod)
District Facility # S-7048
Project # S-1152957

Dear Mr. Nakata:

Enclosed for your review is the District's analysis of an application for Authorities to Construct for the facility identified above. You requested that Certificates of Conformity with the procedural requirements of 40 CFR Part 70 be issued with this project. This project authorizes the increase in throughput for eight existing wine storage tanks and establishes a Specific Limiting Condition to limit the combined annual VOC emissions from the eight tanks.

After addressing all comments made during the 30-day public notice and the 45-day EPA comment periods, the District intends to issue the Authorities to Construct with Certificates 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 Authorities 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: Mike Tollstrup, CARB (w/enclosure) via email
cc: Gerardo C. Rios, EPA (w/enclosure) via email

Seyed Sadredin
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San Joaquin Valley Air Pollution Control District
Authority to Construct Application Review
Modification of Wine Storage Tanks

Facility Name:	ASV Wines Inc	Date:	November 16, 2015
Mailing Address:	1998 Road 152	Engineer:	Jesse A. Garcia
	Delano, CA 93215	Lead Engineer:	Joven Refuerzo
Contact Person:	Ryan Hansen		
Telephone:	(661) 792-1293		
Email:	Rhansen@asvwines.com		
Application #(s):	S-7048-158-3 through -165-2		
Project #:	S-1152957		
Deemed Complete:	July 31, 2015		

I. Proposal

ASV Wines Inc has requested Authority to Construct (ATC) permits for the modification of eight existing wine storage tanks to increase the annual throughput and establish a Specific Limiting Condition (SLC) to limit combined VOC emissions from the eight tanks.

ASV Wines 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. ASV Wines Inc must apply to administratively amend their Title V permit.

II. Applicable Rules

Rule 2201	New and Modified Stationary Source Review Rule (4/21/11)
Rule 2410	Prevention of Significant Deterioration (6/16/11)
Rule 2520	Federally Mandated Operating Permits (6/21/01)
Rule 4001	New Source Performance Standards (4/14/99)
Rule 4002	National Emissions Standards for Hazardous Air Pollutants (5/20/04)
Rule 4102	Nuisance (12/17/92)
Rule 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

Public Resources Code 21000-21177: California Environmental Quality Act (CEQA)
California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000-15387: CEQA Guidelines

III. Project Location

The facility is located at 31502 Peterson Road in McFarland, 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

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

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

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

V. Equipment Listing

Pre-Project Equipment Description:

S-7048-158-1: 9,385 GALLON STEEL WINE STORAGE TANK #2001 WITH PRESSURE/VACUUM VALVE, INSTALLED IN AN ENCLOSED BUILDING

S-7048-159-1: 9,385 GALLON STEEL WINE STORAGE TANK #2002 WITH PRESSURE/VACUUM VALVE, INSTALLED IN AN ENCLOSED BUILDING

S-7048-160-0: 9,385 GALLON STEEL WINE STORAGE TANK #2003 WITH PRESSURE/VACUUM VALVE, INSTALLED IN AN ENCLOSED BUILDING

S-7048-161-0: 9,385 GALLON STEEL WINE STORAGE TANK #2004 WITH PRESSURE/VACUUM VALVE, INSTALLED IN AN ENCLOSED BUILDING

S-7048-162-0: 9,385 GALLON STEEL WINE STORAGE TANK #2005 WITH PRESSURE/VACUUM VALVE, INSTALLED IN AN ENCLOSED BUILDING

S-7048-163-0: 9,385 GALLON STEEL WINE STORAGE TANK #2006 WITH PRESSURE/VACUUM VALVE, INSTALLED IN AN ENCLOSED BUILDING

S-7048-164-0: 9,385 GALLON STEEL WINE STORAGE TANK #2007 WITH PRESSURE/VACUUM VALVE, INSTALLED IN AN ENCLOSED BUILDING

S-7048-165-0: 9,385 GALLON STEEL WINE STORAGE TANK #2008 WITH PRESSURE/VACUUM VALVE, INSTALLED IN AN ENCLOSED BUILDING

Proposed Modification:

S-7048-158-3: MODIFICATION OF 9,385 GALLON STEEL WINE STORAGE TANK #2001 WITH PRESSURE/VACUUM VALVE, INSTALLED IN AN ENCLOSED BUILDING: INCREASE ANNUAL THROUGHPUT AND ESTABLISH A SPECIFIC LIMITING CONDITION TO LIMIT COMBINED ANNUAL VOC EMISSIONS FROM UNITS S-7048-158 THROUGH -165

S-7048-159-3: MODIFICATION OF 9,385 GALLON STEEL WINE STORAGE TANK #2002 WITH PRESSURE/VACUUM VALVE, INSTALLED IN AN ENCLOSED BUILDING: INCREASE ANNUAL THROUGHPUT AND ESTABLISH A SPECIFIC LIMITING CONDITION TO LIMIT COMBINED ANNUAL VOC EMISSIONS FROM UNITS S-7048-158 THROUGH -165

S-7048-160-2: MODIFICATION OF 9,385 GALLON STEEL WINE STORAGE TANK #2003 WITH PRESSURE/VACUUM VALVE, INSTALLED IN AN ENCLOSED BUILDING: INCREASE ANNUAL THROUGHPUT AND ESTABLISH A SPECIFIC LIMITING CONDITION TO LIMIT COMBINED ANNUAL VOC EMISSIONS FROM UNITS S-7048-158 THROUGH -165

S-7048-161-2: MODIFICATION OF 9,385 GALLON STEEL WINE STORAGE TANK #2004 WITH PRESSURE/VACUUM VALVE, INSTALLED IN AN ENCLOSED BUILDING: INCREASE ANNUAL THROUGHPUT AND ESTABLISH A SPECIFIC LIMITING CONDITION TO LIMIT COMBINED ANNUAL VOC EMISSIONS FROM UNITS S-7048-158 THROUGH -165

S-7048-162-2: MODIFICATION OF 9,385 GALLON STEEL WINE STORAGE TANK #2005 WITH PRESSURE/VACUUM VALVE, INSTALLED IN AN ENCLOSED BUILDING: INCREASE ANNUAL THROUGHPUT AND ESTABLISH A SPECIFIC LIMITING CONDITION TO LIMIT COMBINED ANNUAL VOC EMISSIONS FROM UNITS S-7048-158 THROUGH -165

S-7048-163-2: MODIFICATION OF 9,385 GALLON STEEL WINE STORAGE TANK #2006 WITH PRESSURE/VACUUM VALVE, INSTALLED IN AN ENCLOSED BUILDING: INCREASE ANNUAL THROUGHPUT AND ESTABLISH A SPECIFIC LIMITING CONDITION TO LIMIT COMBINED ANNUAL VOC EMISSIONS FROM UNITS S-7048-158 THROUGH -165

S-7048-164-2: MODIFICATION OF 9,385 GALLON STEEL WINE STORAGE TANK #2007 WITH PRESSURE/VACUUM VALVE, INSTALLED IN AN ENCLOSED BUILDING: INCREASE ANNUAL THROUGHPUT AND ESTABLISH A SPECIFIC LIMITING CONDITION TO LIMIT COMBINED ANNUAL VOC EMISSIONS FROM UNITS S-7048-158 THROUGH -165

S-7048-165-2: MODIFICATION OF 9,385 GALLON STEEL WINE STORAGE TANK #2008 WITH PRESSURE/VACUUM VALVE, INSTALLED IN AN ENCLOSED BUILDING: INCREASE ANNUAL THROUGHPUT AND ESTABLISH A SPECIFIC LIMITING CONDITION TO LIMIT COMBINED ANNUAL VOC EMISSIONS FROM UNITS S-7048-158 THROUGH -165

Post Project Equipment Modification:

S-7048-158-3: 9,385 GALLON STEEL WINE STORAGE TANK #2001 WITH PRESSURE/VACUUM VALVE, INSTALLED IN AN ENCLOSED BUILDING

S-7048-159-3: 9,385 GALLON STEEL WINE STORAGE TANK #2002 WITH PRESSURE/VACUUM VALVE, INSTALLED IN AN ENCLOSED BUILDING

S-7048-160-2: 9,385 GALLON STEEL WINE STORAGE TANK #2003 WITH PRESSURE/VACUUM VALVE, INSTALLED IN AN ENCLOSED BUILDING

S-7048-161-2: 9,385 GALLON STEEL WINE STORAGE TANK #2004 WITH PRESSURE/VACUUM VALVE, INSTALLED IN AN ENCLOSED BUILDING

S-7048-162-2: 9,385 GALLON STEEL WINE STORAGE TANK #2005 WITH PRESSURE/VACUUM VALVE, INSTALLED IN AN ENCLOSED BUILDING

S-7048-163-2: 9,385 GALLON STEEL WINE STORAGE TANK #2006 WITH PRESSURE/VACUUM VALVE, INSTALLED IN AN ENCLOSED BUILDING

S-7048-164-2: 9,385 GALLON STEEL WINE STORAGE TANK #2007 WITH PRESSURE/VACUUM VALVE, INSTALLED IN AN ENCLOSED BUILDING

S-7048-165-2: 9,385 GALLON STEEL WINE STORAGE TANK #2008 WITH PRESSURE/VACUUM VALVE, INSTALLED IN AN ENCLOSED BUILDING

VI. Emission Control Technology Evaluation

VOCs (ethanol) are emitted from wine storage tanks as a result of both working losses (which occur when the liquid level in the tank changes) and breathing losses (expansion and contraction effects due to temperature variations). The pressure/vacuum valves limit 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 or in an enclosed building, breathing losses are considered to be negligible.

VII. General Calculations

A. Assumptions

- The proposed tanks will only be used for red and white wine storage
- Typically, for enclosed tanks with refrigeration and/or insulation (or equivalent) and P/V valves, breathing losses from storage of wine are assumed to be negligible
- Storage tank daily and annual maximum ethanol content of stored wine is 20%
- Maximum storage throughput as proposed by applicant:

	Pre-Project		Post-Project	
Permit	Daily Storage (gal/day)	Annual Storage (gal/year)	Daily Storage (gal/day)	Annual Storage (gal/year)
S-7048-158	20,000	200,000	20,000	4,200,000
S-7048-159	20,000	200,000	20,000	
S-7048-160	20,000	200,000	20,000	
S-7048-161	20,000	200,000	20,000	
S-7048-162	20,000	200,000	20,000	
S-7048-163	20,000	200,000	20,000	
S-7048-164	20,000	200,000	20,000	
S-7048-165	20,000	200,000	20,000	

B. Emission Factors

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

C. Calculations

1. Pre-Project Potential to Emit (PE1)

Two Tanks 4.0 runs have been performed pursuant to District Policy FYI-295, Modeling of Emissions for Wine and Distilled Spirits Storage Tanks Using Tanks 4.0d.

See Appendix A for the Tanks 4.0 runs for daily and annual emissions.

Tank	Daily PE1 (lb-VOC/day)[1], ea.	Annual PE2 (lb-VOC/yr)[2], ea.
S-7048-158 through -162	5.0	39
Total	40.0	312

2. Post Project Potential to Emit (PE2)

One Tanks 4.0 run has been performed pursuant to District Policy FYI-295, Modeling of Emissions for Wine and Distilled Spirits Storage Tanks Using Tanks 4.0d for the annual emissions only since the $PE2_{Daily}$ = $PE1_{Daily}$ because there is no change in throughput or ethanol content of stored liquids on a daily basis.

See Appendix A for the Tanks 4.0 runs for daily and annual emissions.

Tank	Daily PE2 (lb-VOC/day), ea.	Annual PE2 (lb-VOC/yr)[3], ea.
S-7048-158 through -162	5.0	77
Total	40.0	616

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

[1] This value represents the speciated value of the ethanol from the ethanol and water emissions reported by Tanks 4.0d pursuant to FYI-295: PE_{Daily} = July Tank Loss ÷ (31 days x AMW) x y_a x MW_a = 243.13 ÷ (31 x 28.88) x 0.3879 x 46.02 = 5.0 lb-VOC/day

[2] Assuming that each tank has a throughput of 200,000 gallons per year, this value represents the speciated value of the ethanol from the ethanol and water emissions reported by Tanks 4.0d pursuant to FYI-295: PE_{year} = Annual Tank Loss ÷ AMW x y_a x MW_a = 63.08 ÷ 28.8820 x 0.3879 x 46.02 = 39 lb-VOC/year

[3] Assuming that each tank has a throughput of 520,000 gallons per year, this value represents the speciated value of the ethanol from the ethanol and water emissions reported by Tanks 4.0d pursuant to FYI-295: PE_{year} = Annual Tank Loss ÷ AMW x y_a x MW_a = 123.77 ÷ 28.8820 x 0.3879 x 46.02 = 77 lb-VOC/year

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 nonattainment for VOC, this project will not trigger PSD requirements for the three 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.

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

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

- Any Clean Emissions Unit, located at a Major Source.

otherwise,

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

As seen in Appendix B, these tanks are equipped with emission control technology that meets the requirements for achieved-in-practice BACT; therefore, the units are Clean Emissions Units and the BE = PE1.

7. SB 288 Major Modification

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

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

SB 288 Major Modification Thresholds			
Pollutant	Project PE2 (lb/year)	Threshold (lb/year)	SB 288 Major Modification Calculation Required?
VOC	616	50,000	No

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

8. Federal Major Modification

District Rule 2201, 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.

Net Emission Increase for Existing Units (NEI_E)

Per 40 CFR 51.165 (a)(1)(xxviii) and 40 CFR 51.165 (a)(2)(ii)(C) for all existing units,

NEI_E = PAE – BAE – unused baseline capacity

where,

BAE = Baseline Actual Emissions which are the actual emissions created by the project during the baseline period. As a worst case, it will be assumed that the BAE = 0.

PAE = Projected Actual Emissions which are the post-project projected actual emissions of the existing units in this project pursuant to 40 CFR 51.165 (a)(1)(xxviii).

Pursuant to 40 CFR 51.165 (a)(1)(B)xxvii(4), the applicant has elected to use the units' Potential to Emit (PE) as the Projected Actual Emissions (PAE):

PAE = PE2 = 616 lb-VOC/year.

Therefore,

NEI_E = PAE – BAE – unused baseline capacity = 616 – 0 – 0 = 616 lb-VOC/year

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

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

Rule 2410 applies to 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 classified as nonattainment for VOC, this project will not trigger PSD requirements for the tanks. Therefore, PSD applicability determination is not 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

As discussed in Section I above, there are no new emissions units associated with this project. Therefore BACT for new units with PE > 2 lb/day purposes is not triggered.

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

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

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

AIPE = PE2 – HAPE

Where,
AIPE = Adjusted Increase in Permitted Emissions, (lb/day)
PE2 = Post-Project Potential to Emit, (lb/day)
HAPE = Historically Adjusted Potential to Emit, (lb/day)

HAPE = PE1 x (EF2/EF1)

Where,
PE1 = The emissions unit's PE prior to modification or relocation, (lb/day)
EF2 = The emissions unit's permitted emission factor for the pollutant after modification or relocation. If EF2 is greater than EF1 then EF2/EF1 shall be set to 1
EF1 = The emissions unit's permitted emission factor for the pollutant before the modification or relocation

AIPE = PE2 – (PE1 * (EF2 / EF1))

Since PE1 = PE2 and EF1 = EF2, the AIPE = 0 for all units.

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.

2. BACT Guideline

BACT Guidelines 5.4.13, applies to the wine storage tanks. [Wine 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: Tanks within enclosed building, pressure/vacuum valve set within 10% of the maximum allowable working pressure of the tank, "gas tight" tank operation and achieve and for wine storage, maintain a continuous storage temperature not exceeding 75 °F within 60 days of completion of fermentation.

B. Offsets

1. Offset Applicability

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

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

2. Quantity of Offsets Required

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

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

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

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

BE = Pre-project Potential to Emit for:

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

otherwise,

BE = Historic Actual Emissions (HAE)

Since the PEs from the existing tanks, in the previous projects, were calculated using an outdated emission factor from a previous version of District FYI-114, VOC Emission Factors for Wine Fermentation and Storage Tanks, pursuant to District Policy APR - 1110, Use of Generally Accepted Emission Factors, Section V.B.3, "...for the purpose of determining the quantity of offsets required, the pre-project emissions are calculated using the method below that results in the highest pre-project emissions: a) Calculate

pre-project emissions using revised emission factors; or b) Set the pre-project to the actual emission reductions previously provided." Therefore, since the highest pre-project emissions result from the actual emission reductions previously provided, the BE = 180 lb/year (from Project S-1093734) + 532 lb/year (from Project S-1110978) = 712 lb/year ÷ 1.5 (distance offset ratio) = 474 lb/year[4].

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

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

PE2 (VOC) = 616 lb/year
BE (VOC) = 474 lb/year
ICCE = 0 lb/year

The project is a Federal Major Modification and therefore the correct offset ratio for VOCs is 1.5:1.

Assuming an offset ratio of 1.5:1, the amount of VOC ERCs that need to be withdrawn is:

Offsets Required (lb/year) = ([616 – 474] + 0) x 1.5
= 142 x 1.5
= 213 lb VOC/year

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

1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
53	53	53	54

The applicant has stated that the facility plans to use ERC certificates C-1120-1 and N-892-1 to offset the increases in VOC emissions associated with this project. The above certificates have available quarterly VOC credits as follows:

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
ERC #C-1120-1	0	20	551	21
ERC #N-892-1	0	0	189	0

As seen above, the proposed ERC certificates are not sufficient to fully offset the first, second and fourth quarter VOC emissions. District Rule 2201, Section 4.13.8, states "Actual Emission Reductions (AER's) for VOC that occurred from April through November may be used to offset increases in VOC during any period of the year." The facility has agreed to provide VOC emissions reduction credits occurring within all four quarters of the year, with excess credits from the 3rd quarter being transferred to the first, second and fourth quarters as follows:

[4] Conservatively rounded down.

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Offsets Required	53	53	53	54
Available ERCs from C-1120-1	0	20	551	21
Available ERCs from N-892-1	0	0	189	0
ERCs applied	0	-20	-53	-21
Remaining offsets required:	53	33	0	31
Remaining ERC's from certificate C-1120-1:	0	0	498	0
N-892-1:	0	0	189	0
3rd qtr. ERC's from certificate C-1120-1 applied to 1st qtr:	53	0	-53	0
3rd qtr. ERC's from certificate C-1120-1 applied to 2nd qtr:	0	33	-33	0
3rd qtr. ERC's from certificate C-1120-1 applied to 4th qtr:	0	0	-31	31
Remaining VOC emissions to be offset:	**0**	**0**	**0**	**0**
Remaining ERC's from certificates C-1120-1 and N-892-1	**0**	**0**	**570**	**0**

As shown above, RC certificates C-1120-1 and N-892-1 have sufficient credits to fully offset the emissions increases associated with this project.

Proposed Rule 2201 (offset) Conditions:

- {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 - 53 lb, 2nd quarter - 53 lb, 3rd quarter - 53 lb, and fourth quarter - 54 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201]

- ERC Certificate Numbers C-1120-1 and/or N-892-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]

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 does not include 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 not 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 compared to the SSIPE Public Notice thresholds in the following table:

Stationary Source Increase in Permitted Emissions [SSIPE] – Public Notice					
Pollutant	ΣPE2 (lb/year)	ΣPE1 (lb/year)	SSIPE (lb/year)	SSIPE Public Notice Threshold	Public Notice Required?
VOC	616	312	304	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 Federal Major Modification. 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 all wine 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 for wine stored in the tank.

Proposed Rule 2201 (DEL) Conditions:

- The ethanol content of wine stored in this tank shall not exceed 20.0 percent by volume. [District Rule 2201]
- The maximum wine storage throughput in this tank shall not exceed 20,000 gallons per day. [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]

- 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]

In addition, the following conditions will be included to limit annual emissions:

- The combined maximum wine storage throughput in tanks S-7048-158 through -165, calculated on a twelve month rolling basis, shall not exceed 4,200,000 gallons per year. [District Rule 2201]
- If the throughput calculated for any rolling 12-month period exceeds the annual throughput limitation of this permit in a crush season, in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limit for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput are below the annual throughput limitation. [District Rule 2201]

E. Compliance Assurance

1. Source Testing

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

2. Monitoring

No monitoring is required to demonstrate compliance with Rule 2201.

3. Recordkeeping

Recordkeeping is required to demonstrate compliance with the offsets, public notification and daily emission limit requirements of Rule 2201. The following conditions will be placed on the permits:

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

- Records of the 12-month rolling storage throughput limit shall be maintained and updated monthly. [District Rule 2201]
- Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 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 2201 and 4694]

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 Section VIII-Rule 2201-C.1.a, this source is undergoing a Federal Major Modification. The facility's compliance certification is included in C.

H. Alternative Siting Analysis

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

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

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

Rule 2410 Prevention of Significant Deterioration

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

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

Rule 2520 Federally Mandated Operating Permits

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

Section 3.20.5 states that a minor permit modification is a permit modification that does not meet the definition of modification as given in Section 111 or Section 112 of the Federal Clean Air Act. Since this project is a Title I modification (i.e. Federal Major Modification), the proposed project is considered to be a modification under the Federal Clean Air Act. As a result, the proposed project constitutes a Significant Modification to the Title V Permit pursuant to Section 3.29.

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

Rule 4001 New Source Performance Standards (NSPS)

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

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

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

Rule 4102 Nuisance

Rule 4102 states that no air contaminant shall be released into the atmosphere which causes a public nuisance. Public nuisance conditions are not expected as a result of the proposed

operations provided the equipment is well maintained. Therefore, the following condition will be listed on each permit to ensure compliance:

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

California Health & Safety Code 41700 (Health Risk Assessment)

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

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

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. 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.

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 ≥ 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 ≥ 5,000 gallons in capacity and used for storage to ensure compliance with the requirements of Section 5.2.2:

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

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

The District is the Lead Agency for this project because there is no other agency with broader statutory authority over this project. The District performed an Engineering Evaluation (this document) for the proposed project and determined that the activity will occur at an existing facility and the project involves negligible expansion of the existing use. Furthermore, the District determined that the activity will not have a significant effect on the environment. The District finds that the activity is categorically exempt from the provisions of CEQA pursuant to CEQA Guideline § 15301 (Existing Facilities), and finds that the project is exempt per the general rule that CEQA applies only to projects which have the potential for causing a significant effect on the environment (CEQA Guidelines §15061(b)(3)).

IX. Recommendation

Compliance with all applicable rules and regulations is expected. Pending a successful NSR Public Noticing period, issue Authorities to Construct S-7048-158-3 through -165-2 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
S-7048-158-3 through -165-2	3020-05-B	9,385 gallons	$98.00

XI. Appendices

A: Tanks 4.0 Calculations
B: BACT Guidelines and Top Down BACT Analysis
C: Compliance Certification
D: QNEC Calculations
E: Current PTOs
F: Draft ATCs

Appendix A

Tanks 4.0 Calculations

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

Identification		
User Identification:	S-7048-158 Daily	
City:		
State:		
Company:		
Type of Tank:	Vertical Fixed Roof Tank	
Description:		
Tank Dimensions		
Shell Height (ft):		17.30
Diameter (ft):		10.00
Liquid Height (ft) :		17.30
Avg. Liquid Height (ft):		17.30
Volume (gallons):		10,164.11
Turnovers:		61.00
Net Throughput(gal/yr):		620,000.00
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)		1.00
Slope (ft/ft) (Cone Roof)		0.20
Breather Vent Settings		
Vacuum Settings (psig):		0.00
Pressure Settings (psig)		0.00

Meterological Data used in Emissions Calculations: Bakersfield, California (Avg Atmospheric Pressure = 14.47 psia)

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

S-7048-158 Daily - Vertical Fixed Roof Tank

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F) Avg.	Min.	Max.	Liquid Bulk Temp (deg F)	Vapor Pressure (psia) Avg.	Min.	Max.	Vapor Mol. Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Wine 20.0 % Vol Alcohol	Jul	83.10	83.10	83.10	83.10	0.8660	0.8660	0.8660	28.8820			20.00	Option 1: VP70 = .55047 VP80 = .77304

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

S-7048-158 Daily - Vertical Fixed Roof Tank

Month	January	February	March	April	May	June	July	August	September	October	November	December
Standing Losses (lb):							0.0000					
Vapor Space Volume (cu ft):							26.1799					
Vapor Density (lb/cu ft):							0.0043					
Vapor Space Expansion Factor:							0.0000					
Vented Vapor Saturation Factor:							0.9849					
Tank Vapor Space Volume:												
Vapor Space Volume (cu ft):							26.1799					
Tank Diameter (ft):							10.0000					
Vapor Space Outage (ft):							0.3333					
Tank Shell Height (ft):							17.3000					
Average Liquid Height (ft):							17.3000					
Roof Outage (ft):							0.3333					
Roof Outage (Cone Roof):												
Roof Outage (ft):							0.3333					
Roof Height (ft):							1.0000					
Roof Slope (ft/ft):							0.2000					
Shell Radius (ft):							5.0000					
Vapor Density:												
Vapor Density (lb/cu ft):							0.0043					
Vapor Molecular Weight (lb/lb-mole):							28.8820					
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):							0.8660					
Daily Avg. Liquid Surface Temp. (deg. R):							542.7700					
Daily Average Ambient Temp. (deg. F):							84.0500					
Ideal Gas Constant R (psia cuft / (lb-mol-deg R)):							10.731					
Liquid Bulk Temperature (deg. R):							542.7700					
Tank Paint Solar Absorptance (Shell):							0.1700					
Tank Paint Solar Absorptance (Roof):							0.1700					
Daily Total Solar Insulation Factor (Btu/sqft day):							2,528.6419					
Vapor Space Expansion Factor:												
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):							0.0000					
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):							0.8660					
Vapor Pressure at Daily Minimum Liquid Surface Temperature (psia):							0.8660					
Vapor Pressure at Daily Maximum Liquid Surface Temperature (psia):							0.8660					
Daily Avg. Liquid Surface Temp. (deg R):							542.7700					
Daily Min. Liquid Surface Temp. (deg R):							542.7700					
Daily Max. Liquid Surface Temp. (deg R):							542.7700					
Daily Ambient Temp. Range (deg. R):							28.9000					
Vented Vapor Saturation Factor:												
Vented Vapor Saturation Factor:							0.9849					
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):							0.8660					
Vapor Space Outage (ft):							0.3333					
Working Losses (lb):							243.1339					
Vapor Molecular Weight (lb/lb-mole):							28.8820					
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):							0.8660					
Net Throughput (gal/mo.):							620,000.0000					
Annual Turnovers:							60.9990					
Turnover Factor:							0.6585					
Maximum Liquid Volume (gal):							10,164.1059					
Maximum Liquid Height (ft):							17.3000					
Tank Diameter (ft):							10.0000					
Working Loss Product Factor:							1.0000					
Total Losses (lb):							243.1339					

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

Emissions Report for: July

S-7048-158 Daily - Vertical Fixed Roof Tank

	Losses(lbs)		
Components	Working Loss	Breathing Loss	Total Emissions
Wine 20.0 % Vol Alcohol	243.13	0.00	243.13

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

Identification		
User Identification:	S-7048-158 Annual PE1	
City:		
State:		
Company:		
Type of Tank:	Vertical Fixed Roof Tank	
Description:		
Tank Dimensions		
Shell Height (ft):		17.30
Diameter (ft):		10.00
Liquid Height (ft) :		17.30
Avg. Liquid Height (ft):		17.30
Volume (gallons):		10,164.11
Turnovers:		19.68
Net Throughput(gal/yr):		200,000.00
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)		1.00
Slope (ft/ft) (Cone Roof)		0.20
Breather Vent Settings		
Vacuum Settings (psig):		0.00
Pressure Settings (psig)		0.00

Meterological Data used in Emissions Calculations: Bakersfield, California (Avg Atmospheric Pressure = 14.47 psia)

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

S-7048-158 Annual PE1 - Vertical Fixed Roof Tank

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F) Avg.	Min.	Max.	Liquid Bulk Temp (deg F)	Vapor Pressure (psia) Avg	Min.	Max.	Vapor Mol. Weight.	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Wine 20.0 % Vol Alcohol	Jan	64.40	64.40	64.40	64.40	0.4587	0.4587	0.4587	28.8820			20.00	Option 1: VP60 = .38652 VP70 = .55047
Wine 20.0 % Vol Alcohol	Feb	64.40	64.40	64.40	64.40	0.4587	0.4587	0.4587	28.8820			20.00	Option 1: VP60 = .38652 VP70 = .55047
Wine 20.0 % Vol Alcohol	Mar	64.40	64.40	64.40	64.40	0.4587	0.4587	0.4587	28.8820			20.00	Option 1: VP60 = .38652 VP70 = .55047
Wine 20.0 % Vol Alcohol	Apr	64.40	64.40	64.40	64.40	0.4587	0.4587	0.4587	28.8820			20.00	Option 1: VP60 = .38652 VP70 = .55047
Wine 20.0 % Vol Alcohol	May	64.40	64.40	64.40	64.40	0.4587	0.4587	0.4587	28.8820			20.00	Option 1: VP60 = .38652 VP70 = .55047
Wine 20.0 % Vol Alcohol	Jun	64.40	64.40	64.40	64.40	0.4587	0.4587	0.4587	28.8820			20.00	Option 1: VP60 = .38652 VP70 = .55047
Wine 20.0 % Vol Alcohol	Jul	64.40	64.40	64.40	64.40	0.4587	0.4587	0.4587	28.8820			20.00	Option 1: VP60 = .38652 VP70 = .55047
Wine 20.0 % Vol Alcohol	Aug	64.40	64.40	64.40	64.40	0.4587	0.4587	0.4587	28.8820			20.00	Option 1: VP60 = .38652 VP70 = .55047
Wine 20.0 % Vol Alcohol	Sep	64.40	64.40	64.40	64.40	0.4587	0.4587	0.4587	28.8820			20.00	Option 1: VP60 = .38652 VP70 = .55047
Wine 20.0 % Vol Alcohol	Oct	64.40	64.40	64.40	64.40	0.4587	0.4587	0.4587	28.8820			20.00	Option 1: VP60 = .38652 VP70 = .55047
Wine 20.0 % Vol Alcohol	Nov	64.40	64.40	64.40	64.40	0.4587	0.4587	0.4587	28.8820			20.00	Option 1: VP60 = .38652 VP70 = .55047
Wine 20.0 % Vol Alcohol	Dec	64.40	64.40	64.40	64.40	0.4587	0.4587	0.4587	28.8820			20.00	Option 1: VP60 = .38652 VP70 = .55047

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

S-7048-158 Annual PE1 - 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)	26.1799	26.1799	26.1799	26.1799	26.1799	26.1799	26.1799	26.1799	26.1799	26.1799	26.1799	26.1799
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	0.9920	0.9920	0.9920	0.9920	0.9920	0.9920	0.9920	0.9920	0.9920	0.9920	0.9920	0.9920
Tank Vapor Space Volume												
Vapor Space Volume (cu ft)	26.1799	26.1799	26.1799	26.1799	26.1799	26.1799	26.1799	26.1799	26.1799	26.1799	26.1799	26.1799
Tank Diameter (ft)	10.0000	10.0000	10.0000	10.0000	10.0000	10.0000	10.0000	10.0000	10.0000	10.0000	10.0000	10.0000
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)	17.3000	17.3000	17.3000	17.3000	17.3000	17.3000	17.3000	17.3000	17.3000	17.3000	17.3000	17.3000
Average Liquid Height (ft)	17.3000	17.3000	17.3000	17.3000	17.3000	17.3000	17.3000	17.3000	17.3000	17.3000	17.3000	17.3000
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)	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000
Shell Radius (ft)	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000
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)	28.8820	28.8820	28.8820	28.8820	28.8820	28.8820	28.8820	28.8820	28.8820	28.8820	28.8820	28.8820
Vapor Pressure at Daily Average Liquid Surface Temperature (psia)	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587
Daily Avg. Liquid Surface Temp. (deg. R)	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700
Daily Average Ambient Temp. (deg. F)	47.7500	53.2500	57.3500	63.0000	70.9500	78.2000	84.0500	82.5500	76.8000	67.7500	55.7500	47.4000
Ideal Gas Constant R (psia cuft / (lb-mol-deg R))	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731
Liquid Bulk Temperature (deg. R)	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700
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)	727.5001	1,058.7300	1,476.2573	1,952.7969	2,340.8181	2,554.9753	2,528.6419	2,288.7858	1,882.6802	1,401.0643	908.0267	666.5843
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)	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587
Vapor Pressure at Daily Minimum Liquid Surface Temperature (psia)	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587
Vapor Pressure at Daily Maximum Liquid Surface Temperature (psia)	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587
Daily Avg. Liquid Surface Temp. (deg R)	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700
Daily Min. Liquid Surface Temp. (deg R)	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700
Daily Max. Liquid Surface Temp. (deg R)	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700
Daily Ambient Temp. Range (deg. R)	18.3000	21.3000	23.1000	25.8000	27.3000	28.4000	28.9000	28.1000	26.6000	25.9000	22.1000	18.2000
Vented Vapor Saturation Factor												
Vented Vapor Saturation Factor	0.9920	0.9920	0.9920	0.9920	0.9920	0.9920	0.9920	0.9920	0.9920	0.9920	0.9920	0.9920
Vapor Pressure at Daily Average Liquid Surface Temperature (psia)	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587
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)	5.2567	5.2567	5.2567	5.2567	5.2567	5.2567	5.2567	5.2567	5.2567	5.2567	5.2567	5.2567
Vapor Molecular Weight (lb/lb-mole)	28.8820	28.8820	28.8820	28.8820	28.8820	28.8820	28.8820	28.8820	28.8820	28.8820	28.8820	28.8820
Vapor Pressure at Daily Average Liquid Surface Temperature (psia)	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587
Net Throughput (gal/mo.)	16,666.6667	16,666.6667	16,666.6667	16,666.6667	16,666.6667	16,666.6667	16,666.6667	16,666.6667	16,666.6667	16,666.6667	16,666.6667	16,666.6667
Annual Turnovers	19.6771	19.6771	19.6771	19.6771	19.6771	19.6771	19.6771	19.6771	19.6771	19.6771	19.6771	19.6771
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)	10,164.1059	10,164.1059	10,164.1059	10,164.1059	10,164.1059	10,164.1059	10,164.1059	10,164.1059	10,164.1059	10,164.1059	10,164.1059	10,164.1059
Maximum Liquid Height (ft)	17.3000	17.3000	17.3000	17.3000	17.3000	17.3000	17.3000	17.3000	17.3000	17.3000	17.3000	17.3000
Tank Diameter (ft)	10.0000	10.0000	10.0000	10.0000	10.0000	10.0000	10.0000	10.0000	10.0000	10.0000	10.0000	10.0000
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)	5.2567	5.2567	5.2567	5.2567	5.2567	5.2567	5.2567	5.2567	5.2567	5.2567	5.2567	5.2567

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

S-7048-158 Annual PE1 - Vertical Fixed Roof Tank

	Losses(lbs)		
Components	Working Loss	Breathing Loss	Total Emissions
Wine 20.0 % Vol Alcohol	63.08	0.00	63.08

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

Identification		
User Identification:	S-7048-158 Annual	
City:		
State:		
Company:		
Type of Tank:	Vertical Fixed Roof Tank	
Description:		
Tank Dimensions		
Shell Height (ft):		17.30
Diameter (ft):		10.00
Liquid Height (ft) :		17.30
Avg. Liquid Height (ft):		17.30
Volume (gallons):		10,164.11
Turnovers:		51.65
Net Throughput(gal/yr):		525,000.00
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)		1.00
Slope (ft/ft) (Cone Roof)		0.20
Breather Vent Settings		
Vacuum Settings (psig):		0.00
Pressure Settings (psig)		0.00

Meterological Data used in Emissions Calculations: Bakersfield, California (Avg Atmospheric Pressure = 14.47 psia)

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

S-7048-158 Annual - Vertical Fixed Roof Tank

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F) Avg.	Min.	Max.	Liquid Bulk Temp (deg F)	Vapor Pressure (psia) Avg.	Min.	Max.	Vapor Mol. Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Wine 20.0 % Vol Alcohol	Jan	64.40	64.40	64.40	64.40	0.4587	0.4587	0.4587	28.8820			20.00	Option 1: VP60 = .38652 VP70 = .55047
Wine 20.0 % Vol Alcohol	Feb	64.40	64.40	64.40	64.40	0.4587	0.4587	0.4587	28.8820			20.00	Option 1: VP60 = .38652 VP70 = .55047
Wine 20.0 % Vol Alcohol	Mar	64.40	64.40	64.40	64.40	0.4587	0.4587	0.4587	28.8820			20.00	Option 1: VP60 = .38652 VP70 = .55047
Wine 20.0 % Vol Alcohol	Apr	64.40	64.40	64.40	64.40	0.4587	0.4587	0.4587	28.8820			20.00	Option 1: VP60 = .38652 VP70 = .55047
Wine 20.0 % Vol Alcohol	May	64.40	64.40	64.40	64.40	0.4587	0.4587	0.4587	28.8820			20.00	Option 1: VP60 = .38652 VP70 = .55047
Wine 20.0 % Vol Alcohol	Jun	64.40	64.40	64.40	64.40	0.4587	0.4587	0.4587	28.8820			20.00	Option 1: VP60 = .38652 VP70 = .55047
Wine 20.0 % Vol Alcohol	Jul	64.40	64.40	64.40	64.40	0.4587	0.4587	0.4587	28.8820			20.00	Option 1: VP60 = .38652 VP70 = .55047
Wine 20.0 % Vol Alcohol	Aug	64.40	64.40	64.40	64.40	0.4587	0.4587	0.4587	28.8820			20.00	Option 1: VP60 = .38652 VP70 = .55047
Wine 20.0 % Vol Alcohol	Sep	64.40	64.40	64.40	64.40	0.4587	0.4587	0.4587	28.8820			20.00	Option 1: VP60 = .38652 VP70 = .55047
Wine 20.0 % Vol Alcohol	Oct	64.40	64.40	64.40	64.40	0.4587	0.4587	0.4587	28.8820			20.00	Option 1: VP60 = .38652 VP70 = .55047
Wine 20.0 % Vol Alcohol	Nov	64.40	64.40	64.40	64.40	0.4587	0.4587	0.4587	28.8820			20.00	Option 1: VP60 = .38652 VP70 = .55047
Wine 20.0 % Vol Alcohol	Dec	64.40	64.40	64.40	64.40	0.4587	0.4587	0.4587	28.8820			20.00	Option 1: VP60 = .38652 VP70 = .55047

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

S-7048-158 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):	26.1799	26.1799	26.1799	26.1799	26.1799	26.1799	26.1799	26.1799	26.1799	26.1799	26.1799	26.1799
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:	0.9920	0.9920	0.9920	0.9920	0.9920	0.9920	0.9920	0.9920	0.9920	0.9920	0.9920	0.9920
Tank Vapor Space Volume												
Vapor Space Volume (cu ft):	26.1799	26.1799	26.1799	26.1799	26.1799	26.1799	26.1799	26.1799	26.1799	26.1799	26.1799	26.1799
Tank Diameter (ft):	10.0000	10.0000	10.0000	10.0000	10.0000	10.0000	10.0000	10.0000	10.0000	10.0000	10.0000	10.0000
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):	17.3000	17.3000	17.3000	17.3000	17.3000	17.3000	17.3000	17.3000	17.3000	17.3000	17.3000	17.3000
Average Liquid Height (ft):	17.3000	17.3000	17.3000	17.3000	17.3000	17.3000	17.3000	17.3000	17.3000	17.3000	17.3000	17.3000
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):	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000
Shell Radius (ft):	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000
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):	28.8820	28.8820	28.8820	28.8820	28.8820	28.8820	28.8820	28.8820	28.8820	28.8820	28.8820	28.8820
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587
Daily Avg. Liquid Surface Temp. (deg. R):	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700
Daily Average Ambient Temp. (deg. F):	47.7500	53.2500	57.3500	63.0000	70.9500	78.2000	84.0500	82.5500	76.8000	67.7500	55.7500	47.4000
Ideal Gas Constant R (psia cuft / (lb-mol-deg R))	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731
Liquid Bulk Temperature (deg. R)	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700
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)	727.5001	1,058.7300	1,476.2573	1,952.7969	2,340.8181	2,554.9753	2,528.6419	2,288.7858	1,882.6802	1,401.0643	908.0267	668.5843
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):	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587
Vapor Pressure at Daily Minimum Liquid Surface Temperature (psia):	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587
Vapor Pressure at Daily Maximum Liquid Surface Temperature (psia):	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587
Daily Avg. Liquid Surface Temp. (deg R):	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700
Daily Min. Liquid Surface Temp. (deg R):	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700
Daily Max. Liquid Surface Temp. (deg R):	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700	524.0700
Daily Ambient Temp. Range (deg. R):	18.3000	21.3000	23.1000	25.8000	27.3000	28.4000	28.9000	28.1000	26.6000	25.9000	22.1000	18.2000
Vented Vapor Saturation Factor												
Vented Vapor Saturation Factor:	0.9920	0.9920	0.9920	0.9920	0.9920	0.9920	0.9920	0.9920	0.9920	0.9920	0.9920	0.9920
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587
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):	10.3143	10.3143	10.3143	10.3143	10.3143	10.3143	10.3143	10.3143	10.3143	10.3143	10.3143	10.3143
Vapor Molecular Weight (lb/lb-mole)	28.8820	28.8820	28.8820	28.8820	28.8820	28.8820	28.8820	28.8820	28.8820	28.8820	28.8820	28.8820
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587	0.4587
Net Throughput (gal/mo.):	43,750.0000	43,750.0000	43,750.0000	43,750.0000	43,750.0000	43,750.0000	43,750.0000	43,750.0000	43,750.0000	43,750.0000	43,750.0000	43,750.0000
Annual Turnovers:	51.6524	51.6524	51.6524	51.6524	51.6524	51.6524	51.6524	51.6524	51.6524	51.6524	51.6524	51.6524
Turnover Factor:	0.7475	0.7475	0.7475	0.7475	0.7475	0.7475	0.7475	0.7475	0.7475	0.7475	0.7475	0.7475
Maximum Liquid Volume (gal):	10,164.1059	10,164.1059	10,164.1059	10,164.1059	10,164.1059	10,164.1059	10,164.1059	10,164.1059	10,164.1059	10,164.1059	10,164.1059	10,164.1059
Maximum Liquid Height (ft):	17.3000	17.3000	17.3000	17.3000	17.3000	17.3000	17.3000	17.3000	17.3000	17.3000	17.3000	17.3000
Tank Diameter (ft):	10.0000	10.0000	10.0000	10.0000	10.0000	10.0000	10.0000	10.0000	10.0000	10.0000	10.0000	10.0000
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):	10.3143	10.3143	10.3143	10.3143	10.3143	10.3143	10.3143	10.3143	10.3143	10.3143	10.3143	10.3143

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

S-7048-158 Annual - Vertical Fixed Roof Tank

	Losses(lbs)		
Components	Working Loss	Breathing Loss	Total Emissions
Wine 20.0 % Vol Alcohol	123.77	0.00	123.77

Appendix B

BACT Guidelines 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 ot 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 s a state implementation plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

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

Top Down BACT Analysis for Wine Storage VOC Emissions

Step 1 - Identify All Possible Control Technologies

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

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

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

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

Step 2 - Eliminate Technologically Infeasible Options

None of the above listed technologies are technologically infeasible.

Step 3 - Rank Remaining Control Technologies by Control Effectiveness

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

Step 4 - Cost Effectiveness Analysis

A cost-effective analysis is performed for control technologies which is 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 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 place 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 spirit if a few hundred gallons of medium grade distilled spirit 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.

Capital Cost Ductwork

Connection from tank to main duct = [8 tanks x (50 feet from tank to main duct)] x $61.00/foot
= $24,400

Main duct = [(10 feet diameter x 7 tanks) + (10 feet diameter ÷ 2 x 1 tank)] x $61.00/foot
= $4,575

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

Unit installed cost for 6 inch butterfly valve = $2,125/valve x 8 valves
= $17,000

Unit installed cost one foot removable spool = $500/tank x 8 tanks
= $4,000
Knockout drum = $46,300
Duct support allowance = $5,000/tank x 8 tanks = $40,000

Total = $24,400 + 4,575 + 3,050 + 17,000 + 4,000 + 46,300 + 40,000 = $139,325

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	$139,325
Adjusting factor from 2005 dollars to 2015 dollars (2.75% inflation/year)	1.38
Inflation adjusted duct cost	$192,269
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	$192,269
Instrumentation 10%	$19,227
Sales Tax 3.3125%[5]	$6,369
Freight 5%	$9,613
Purchased equipment cost	**$227,478**
Foundations & supports 8%	$18,198
Handling & erection 14%	$31,847
Electrical 4%	$9,099
Piping 2%	$4,550
Painting 1%	$2,275
Insulation 1%	$2,275
Direct installation costs	**$68,244**
Total Direct Costs	**$295,722**
Indirect Costs (IC)	
Engineering 10%	$22,748
Construction and field expenses 5%	$11,374
Contractor fees 10%	$22,748
Start-up 2%	$4,550
Performance test 1%	$2,275
Contingencies 3%	$6,824
Total Indirect Costs	**$70,519**
Total Capital Investment (TCI) (DC + IC)	**$366,241**

[5] 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 3.3125% (7.500% - 4.1875%). http://www.boe.ca.gov/sutax/manufacturing_exemptions.htm#Purchasers

Annualized Capital Investment = Initial Capital Investment x Amortization Factor

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

Therefore,
Annualized Capital Investment for Ductwork = $366,241 x 0.163 = $59,697

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[6]	$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 3.3125%	$ 663
Freight 5%	$1,000
Purchased equipment cost	**$23,663**
Foundations & supports 8%	$1,893
Handling & erection 14%	$3,313
Electrical 4%	$ 947
Piping 2%	$ 473
Painting 1%	$ 237
Insulation 1%	$ 237
Direct installation costs	**$7,100**
Total Direct Costs	**$30,763**
Indirect Costs (IC)	
Engineering 10%	$2,366
Construction and field expenses 5%	$1,183
Contractor fees 10%	$2,366
Start-up 2%	$ 473
Performance test 1%	$ 237
Contingencies 3%	$ 710
Total Indirect Costs	**$7,335**
Total Capital Investment (TCI) (DC + IC)	**$38,098**

[6] 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, only 8 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 = $38,098 x 0.163 = $6,210

Option 1 - Capture of VOCs & thermal/catalytic oxidation or equivalent (overall capture & control efficiency of 98%)

The total capital investment cost and installation costs including freight for a Regenerative Thermal Oxidizer (RTO) used in this evaluation are based on the cost information provided by Adwest Technologies, Inc on September 24, 2014 for an RTO handling 537 scfm, which was the smallest system they could provide. The potential flow rate from the tanks proposed in this project is calculated as follows:

For the storage operation, the maximum vent rate from a tank is equal to the maximum liquid fill rate. The facility currently has one pump capable of 100 gal/min (13.4 cfm). Since pumps are not permitted equipment, a worst case scenario will be assumed that the facility will purchase a pump for each tank as a result of this project; therefore, the total simultaneous rate from all eight tanks = 106 cfm.

The 106 cfm flow rate is equivalent to approximately 19.7% of 537 scfm.

Generally, when estimating costs from a known value, the rule of six-tenths is used to account for economy of scale. However, since the control device required for this project is smaller than the control device in the base project, the cost for the control device in this project will be scaled linearly. Scaling linearly results in lower capital cost and lower cost effectiveness. Therefore, the capital and installation costs provided in the cost estimate will be adjusted by a factor of 0.2 for purposes of this analysis.

Thermal or Catalytic Oxidation	
Cost Description	Cost ($)
Size adjusted Regenerative Thermal Oxidizer cost [145,500 x (0.2)]	$29,100
The following cost data is taken from EPA Control Cost Manual, Sixth Edition (EPA/452/B-02-001).	
Direct Costs (DC)	
Base Equipment Costs (Regenerative Thermal Oxidizer System) See Above	$29,100
Freight and Startup [22,900 x (0.2)]	$4,580
Sales Tax 3.3125%	$ 964
Purchased equipment cost	**$34,644**
Foundations & supports 8%	$2,772
Handling & erection 14%	$4,850
Electrical 4%	$1,386
Piping 2%	$ 693
Painting 1%	$ 346
Insulation 1%	$ 346

Direct installation costs	**$10,393**
Total Direct Costs	**$45,037**
Indirect Costs (IC)	
Engineering 10%	$3,464
Construction and field expenses 5%	$1,732
Contractor fees 10%	$3,464
Start-up (included above)	-
Performance test 1%	$ 346
Contingencies 3%	$1,039
Total Indirect Costs	**$10,045**
Total Capital Investment (TCI) (DC + IC)	**$55,082**

Annualized Capital Investment = Initial Capital Investment x Amortization Factor

Annualized Capital Investment for thermal oxidizer = $55,082 x 0.163 x 2 = $8,978

Operation and Maintenance Costs

The Direct annual costs include labor (operating, supervisory, and maintenance), maintenance materials, electricity, and fuel.

Heat of Combustion for waste gas stream -dh(c):

heat of combustion -dHc = 20,276 Btu/lb
Daily VOC emissions rate = 40.0 lb/day
Blower flow rate = 106 scfm
= 152,640 ft^3/day

-dh(c) = 13.7 lb/day x 20,276 Btu/lb / 152,640 ft^3/day
= 1.8 Btu/ft^3

Assuming the waste gas is principally air, with a molecular weight of 28.97 and a corresponding density of 0.0739 lb/scf, the heat of combustion per pound of incoming waste gas is:

-dh(c) = 1.8 Btu/ft^3 / 0.0739 lb/ft^3
= 24.4 Btu/lb

Fuel Flow Requirement

$$Q(fuel) = \frac{Pw*Qw*\{Cp*[1.1Tf-Tw-0.1Tr]-[-dh(c)]\}}{P(ef) * [-dh(m) - 1.1\ Cp * (Tf - Tr)]}$$

Where Pw = 0.0739 lb/ft^3
Cp = 0.255 Btu/lb-°F
Qw = 106 scfm

-dh(m) = 21,502 Btu/lb for methane
Tr = 77°F assume ambient conditions
P(ef) = 0.0408 lb/ft^3 m, methane at 77°F, 1 atm
Tf = 1600°F
Tw = 1150°F
-dh(c) = 24.4 Btu/lb

$$Q = \frac{0.0739*106*\{0.255*[1.1*1,600-1,150-0.1*77]-24.4\}}{0.0408*[21,502 - 1.1*0.255*(1,600 - 77)]}$$

= 1,012 ÷ 859.8 = 1.18 ft^3/min

Fuel Costs

The cost for natural gas shall be based upon the average price of natural gas sold to "Commercial Consumers" in California for the years 2011, 2012, 2013 and 2014.[7]

2014 = $9.05/thousand ft^3 total monthly average
2013 = $7.81/thousand ft^3 total monthly average
2012 = $7.05/thousand ft^3 total monthly average
2011 = $8.29/thousand ft^3 total monthly average
Average for three years = $8.05/thousand ft^3 total monthly average

Fuel Cost = 1.18 cfm x 60 min/day x 365 day/year x $8.05 /1000 ft^3
= $208/year

Electricity Requirement

$$Power_{fan} = \frac{1.17*10^{-4}\ Qw*\ \Delta P}{\epsilon}$$

Where
ΔP = Pressure drop Across system = 10 in. H_2O
ϵ = Efficiency for fan and motor = 0.6
Qw = 106 scfm

$$Power_{fan} = \frac{1.17*10^{-4}*106\ cfm*1.5*\ 10\ in.\ H_2O}{0.60*0.90}$$

= 0.34 kW

Electricity Costs

Average cost of electricity to commercial users in California [8]:

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7 Energy Information Administration/Natural Gas; Average Price of Natural Gas Sold to Commercial Consumers by State, 2011 – 2015: http://www.eia.gov/dnav/ng/ng_pri_sum_dcu_SCA_a.htm

8 Energy Information Administration/Electric Power; Average Retail Price of Electricity to Ultimate Customers by End-Use Sector, by State, 2011 – 2012: http://www.eia.gov/electricity/data/browser/#/topic/7?agg=0,1&geo=g&endsec=vg&linechart=ELEC.PRICE.US-ALL.A~ELEC.PRICE.US-RES.A~ELEC.PRICE.US-COM.A~ELEC.PRICE.US-IND.A&columnchart=ELEC.PRICE.US-

2014 = $0.1567
2013 = $0.1420
2012 = $0.1341
2011 = $0.1305
AVG = $0.1409

Electricity Cost = 0.34 kW x 1 hour/day x 365 days/year x $0.1409/kWh = $17/year

Total Operating and Maintenance Costs

Annual Costs (Based on: EPA Air Pollution Control Cost Manual, Sixth Edition (January 2002), Section 3.2: VOC Destruction Controls, Chapter 2: Incinerators (September 2000), Table 2.10 - Annual Costs for Thermal and Catalytic Incinerators Example Problem. United States Environmental Protection Agency Office of Air Quality Planning and Standards. Research Triangle Park, North Carolina 27711. EPA/452/B-02-001)[9]

Annual Costs			
Direct Annual Cost (DC)			
Operating Labor			
Operator	0.5 hr/shift	$18.5/hr x 0.5 hr/shift x 1.5 shift/day x 365 day/yr	$5,064
Supervisor	15% of operator		$760
Maintenance			
Labor	0.5 h/shift	$18.50/hr x 0.5 hr/shift x 1.5 shift/day x 365 days/year	$5,064
Maintenance	100% of labor		$5,064
Utility			
Natural Gas			$208
Electricity			$17
Total DC			**$16,177**
Indirect Annual Cost (IC)			
Overhead	60% of Labor Cost	0.6 x ($5,064 + $760 + $5,064)	$6,533
Administrative	2% TCI		$1,102
Property Taxes	1% TCI		$551
Insurance	1% TCI		$551
Total IC			**$8,737**
Annual Cost (DC + IC)			**$24,914**

ALL.A~ELEC.PRICE.US-RES.A~ELEC.PRICE.US-COM.A~ELEC.PRICE.US-IND.A&map=ELEC.PRICE.US-COM.A&freq=A&start=2001&end=2014&ctype=map&ltype=pin&rtype=s&pin=&rse=0&maptype=0

[9] http://epa.gov/ttn/catc/dir1/cs3-2ch2.pdf

Total Annual Cost = (Ductwork + CIP Systems) + RTO + Annual Costs
= $(59,697 + 6,210) + $8,978 + $24,914
= $99,808

Annual Emission Reduction = Uncontrolled Emissions x 0.98
= 616 lb-VOC/year x 0.98 x ton/2,000 lb
= 0.30 tons-VOC/year

Cost Effectiveness = $99,808/year ÷ 0.30 tons-VOC/year
= $332,693/ton-VOC

The cost of VOC reductions for this control system is more than the threshold limit of $17,500/ton. Therefore, the capture and oxidation control system is not cost-effective for this installation.

Option 2 - Capture of VOCs and carbon adsorption or equivalent (overall capture & control efficiency of 95%)

Delivery and installation of a 1,000 cfm blower package for carbon adsorption is $80-85,000 and delivery and installation of a 50cfm blower package for carbon adsorption is $20-25,000 per David Drewelow of Drewelow Remediation Equipment. Assuming $80,000 and $20,000 respectively for the above-mentioned systems, interpolating for a 106 cfm system, yields $23,537.

The carbon bed operated with steam to regenerate the bed produces a water alcohol mixture. The waste stream or disposal costs have not been analyzed in this project.

Carbon Capital Cost

Annual Emission Reduction = Storage Emissions x 0.86
= 616 lb-VOC/year x 0.86
= 530 lb-VOC/year

Assume a working bed capacity of 20% for carbon (weight of vapor per weight of carbon)

Carbon required = 530 lbs-VOC/year x 1/0.20
= 2,650 lb carbon

David Drewelow also provided a cost of $1.25/lb of carbon which does not include any delivery or servicing fees. Therefore, carbon capital cost = $1.25/lb x 2,650 lb carbon = $3,313

Carbon Adsorption	
Cost Description	Cost ($)
Carbon Adsorption cost	$23,537
Water alcohol tank cost (taken from Project N-1143697)	$5,000
Carbon Adsorption + water alcohol tank cost	$28,537
Carbon Capital Cost (see above)	$3,313
The following cost data is taken from EPA Control Cost Manual, Sixth Edition (EPA/452/B-02-001).	
Direct Costs (DC)	
Base Equipment Costs (Carbon Adsorption System + Carbon) See Above	$31,850
Instrumentation 10%	$3,185
Sales Tax 3.3125%	$ 836
Freight 5%	$1,593
Purchased equipment cost	**$37,464**
Foundations & supports 8%	$2,997
Handling & erection 14%	$5,245
Electrical 4%	$1,499
Piping 2%	$ 749
Painting 1%	$ 375
Insulation 1%	$ 375
Direct installation costs	**$11,240**
Total Direct Costs	**$48,704**
Indirect Costs (IC)	
Engineering 10%	$3,746
Construction and field expenses 5%	$1,873
Contractor fees 10%	$3,746
Start-up 2%	$ 749
Performance test 1%	$ 375
Contingencies 3%	$1,124
Total Indirect Costs	**$11,613**
Total Capital Investment (TCI) (DC + IC)	**$60,317**

Annualized Capital Investment = Initial Capital Investment x Amortization Factor

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

Therefore,

Annualized Capital Investment = $60,317 x 0.163 = $9,832

Total Annual Cost = (Ductwork + CIP System) + Carbon Adsorption System
= $(59,697 + 6,210) + $9,832
= $75,739

Annual Emission Reduction = Uncontrolled Emissions x 0.86
= 616 lb-VOC/year x 0.86 x ton/2,000 lb
= 0.26 tons-VOC/year

Cost Effectiveness = $23,923/year ÷ 0.26 tons-VOC/year
= $291,304/ton-VOC

The cost of VOC reductions for this control system is more than the threshold limit of $17,500/ton. Therefore, the capture and carbon adsorption control system is not cost-effective for this installation.

Option 3 - Capture of VOCs and absorption or equivalent (overall capture & control efficiency of 90%)

The total capital investment costs and operating costs for an absorption system used in this evaluation are based on the information given in District project N-1133659. The scrubber under project N-1133659 was evaluated for the control of 84,864 pounds of VOC emissions. The potential VOC emissions from this project are 616 pounds, equivalent to approximately 0.7% of the emissions evaluated for control under project N-1133659.

Generally, when estimating costs from a known value, the rule of six-tenths is used to account for economy of scale. However, since the control device required for this project is smaller than the control device in the base project, the cost for the control device in this project will be scaled linearly. Scaling linearly results in lower capital cost and lower cost effectiveness. Therefore, the capital and installation costs provided in the cost estimate will be adjusted by a factor of 0.007 for purposes of this analysis.

Capital Cost for each Water Scrubber unit is as follows: Reactor and Portable Pumping Skids are $60,000 and $7,500 respectively. The total capital cost for all units is $1,215,000 controlling 84,864 lbs-VOC. Therefore, the total capital cost for an equivalent system for this project is estimated to be $8,819.

Scrubber	
Cost Description	Cost ($)
Refrigerated Scrubber System	$8,819
The following cost data is taken from EPA Control Cost Manual, Sixth Edition (EPA/452/B-02-001).	
Direct Costs (DC)	
Base Equipment Costs (Scrubber System) See Above	$8,819
Instrumentation ($2,000 per unit, assume 1 unit)	$2,000
Sales Tax 3.3125%	$ 292
Freight (included)	-
Purchased equipment cost	**$11,111**
Foundations & supports (not required)	-
Handling & erection 2%	$ 222
Electrical 1%	$ 111
Piping 1%	$ 111
Painting (not required)	-
Insulation (not required)	-
PLC & Programming	$0[11]
Recovered Ethanol Storage Tank (installed)	$5,000
Direct installation costs	**$5,444**
Total Direct Costs (TDC)	**$16,555**
Indirect Costs (IC)	
Engineering (5% of TDC)	$ 828
Construction and field expenses (2% of TDC)	$ 331
Permits (Building Department) (Allowance)	$10,000
Contractor fees (2% of TDC)	$ 331
Start-up (1% of TDC)	$ 166
Source Testing (1 unit x $15,000/unit)	$15,000
Owner's Cost (Allowance)	$5,556[12]
Total Indirect Costs	**$32,212**
Subtotal Capital Investment (SCI)	**$48,767**
Project Contingency (20% of SCI)	$9,753
Total Capital Investment (TCI) (DC + IC)	**$58,520**

[11] The facility has not requested PLC and Programming.
[12] From project N-1133659 for 18 units, Owner's Cost = $100,000 (or $5,556/unit)

Annualized Capital Investment = Initial Capital Investment x Amortization Factor

Annualized Capital Investment = $58,520 x 0.163 = $9,539.

Wastewater Disposal Costs

The water scrubber will generate ethanol-laden wastewater containing 0.28 tons (554 lbs) of ethanol annually (616 lb/year (uncontrolled emissions) x 0.90 ÷ 2000). Assuming a 10% solution, approximately 837 gallons of waste water (554 lb-ethanol x 1 gal/6.62 lb ÷ 0.10) will be generated annually. Based on information from NohBell Corporation, an allowance of $0.08 per gallon is applied for disposal costs.

Annual disposal costs = 837 gallons x $0.08/gallon = $67

Annual Costs

Annual Costs			
Direct Annual Cost (DC)			
Operating Labor			
Operator	0.5 hr/shift	$18.50/hr x 0.5 hr/shift x 1.5 shift/day x 365 days/year	$5,064
Supervisor	15% of operator		$760
Maintenance			
Labor	1% of TCI		$585
Wastewater Disposal			
	10% Solution = 837 gal	$0.08/gal	$67
Utility			
Electricity	1 unit x 2.5 hp x 0.746 kW/hp x 8,760 hr/yr = 681 kWh/yr	$0.1409/kWh	$96
Total DC			**$6,572**
Indirect Annual Cost (IC)			
Overhead	60% of Labor Cost	0.6 x ($5,064 + $760 + $585)	$6,409
Administrative	2% TCI		$1,170
Property Taxes	1% TCI		$585
Insurance	1% TCI		$585
Annual Source Test	One representative test/year @		$15,000
Total IC			**$23,749**
Annual Cost (DC + IC)			**$30,321**

Total Annual Cost = (Ductwork + CIP Systems) + Absorption System + Operating Costs
= $(59,697 + 6,210) + $9,539 + $30,321
= $105,767

Annual Emission Reduction = Uncontrolled Emissions x 0.90
= 616 lb-VOC/year x 0.90 x ton/2,000 lb
= 0.25 tons-VOC/year

Cost Effectiveness = $105,767/year ÷ 0.25 tons-VOC/year
= $423,068/ton-VOC

The cost of VOC reductions of this control system is more than the threshold limit of $17,500/ton. Therefore, the absorption control system is not cost-effective for this installation.

Option 4 – Capture of VOCs and condensation or equivalent (overall capture & control efficiency of 70%)

The total capital investment costs and operating costs for condensation system used in this evaluation are based on the information given in District project N-1133659. Similar assumption in option 3 discussed above applies; the capital cost given in project N-1133659 will be adjusted by a factor of 0.7% for purposes of this analysis. In addition, no value will be given for the ethanol that is recovered from the condensation system since the recovered ethanol has not been conclusively demonstrated to have a value in practice and could actually result in additional costs for disposal.

Generally, when estimating costs from a known value, the rule of six-tenths is used to account for economy of scale. However, since the control device required for this project is smaller than the control device in the base project, the cost for the control device in this project will be scaled linearly. Scaling linearly results in lower capital cost and lower cost effectiveness. Therefore, the capital and installation costs provided in the cost estimate will be adjusted by a factor of 0.007 for purposes of this analysis.

The total capital cost provided in project N-1133659 is $1,901,272 for 4 units controlling 84,864 lbs-VOC. Therefore, the total capital cost for an equivalent system for this project is estimated to be $13,309.

Condensation	
Cost Description	Cost ($)
Cost of Refrigerated Condenser system (1 PAS Unit)	$13,309
The following cost data is taken from EPA Control Cost Manual, Sixth Edition (EPA/452/B-02-001).	
Direct Costs (DC)	
Base Equipment Costs (Condenser) See Above	$7,605
Instrumentation (included)	-
Sales Tax (included)	-
Freight (included)	-
Purchased equipment cost	**$7,605**
Labor (estimated from project N-1133659)	$326
Installation Expense (estimated from project N-1133659)	$237
Subcontracts (estimated from project N-1133659)	$72
PLC/Programming	$0[13]
Direct installation costs	**$635**
Total Direct Costs (TDC)	**$8,240**
Indirect Costs (IC)	
Engineering (5% of TDC)	$412
Permits (Building Department) (Allowance)	$2,500[14]
Initial Source Testing ($15,000/unit)	$15,000
Owner's Cost (Allowance)	$5,556
Total Indirect Cost	**$23,468**
Subtotal Capital Investment (SCI)	**$31,708**
Project Contingency (20% of SCI)	$6,342
Total Capital Investment (TCI) (DC + IC + Contingency)	**$63,416**

Annualized Capital Investment = Initial Capital Investment x Amortization Factor

Annualized Capital Investment = $63,416 x 0.163 = $10,337.

[13] The facility has not requested PLC and Programming.
[14] From project N-1133659 for 4 units, Permits = $10,000 (or $2,500/unit)

Annual Costs

Annual Costs			
Direct Annual Cost (DC)			
Operating Labor			
Operator	0.5 hr/shift	$18.50/hr x 0.5 hr/shift x 1.5 shift/day x 365 days/year	$5,064
Supervisor	15% of operator		$760
Maintenance			
Labor	1% of TCI		$634
Chiller (Glycol)			
	616 lb/year (uncontrolled storage emissions) x 0.90 ÷ 2000	$270/ton EtOH	$75
Utility			
			$0
Total DC			**$6,533**
Indirect Annual Cost (IC)			
Overhead	60% of Labor Cost	0.6 x ($5,064 + $760 + $634)	$3,875
Administrative	2% TCI		$1,268
Property Taxes	1% TCI		$634
Insurance	1% TCI		$634
Annual Source Test	One representative test/year @		$15,000
Total IC			**$21,411**
Annual Cost (DC + IC)			**$27,944**

Total Annual Cost = (Ductwork + CIP Systems) + Condensation System + Operating Costs
= $(59,697 + 6,210) + $10,337 + $27,944
= $104,188

Annual Emission Reduction = Uncontrolled Emissions x 0.70
= 616 lb-VOC/year x 0.70 x ton/2,000 lb
= 0.22 tons-VOC/year

Cost Effectiveness = $104,188/year ÷ 0.22 tons-VOC/year
= $473,582/ton-VOC

The cost of VOC reductions of this control system is more than the threshold limit of $17,500/ton. Therefore, the condensation control system is not cost-effective for this installation.

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 (or within an enclosed building), pressure/vacuum valve set within 10% of the maximum allowable working pressure of the tank, "gas tight" tank operation and achieve and maintain a continuous storage temperature not exceeding 75°F within 60 days of completion of fermentation. These BACT requirements will be placed on the ATC as enforceable conditions.

Appendix C

Compliance Certification

San Joaquin Valley
Unified Air Pollution Control District

HEALTHY AIR LIVING

TITLE V MODIFICATION - COMPLIANCE CERTIFICATION FORM

I. TYPE OF PERMIT ACTION (Check appropriate box)

[ ] SIGNIFICANT PERMIT MODIFICATION
[X] MINOR PERMIT MODIFICATION
[ ] ADMINISTRATIVE AMENDMENT

COMPANY NAME: ASV Wines Inc.	FACILITY ID: S - 7048
1. Type of Organization: [ ] Corporation [X] Sole Ownership [ ] Government [ ] Partnership [ ] Utility	
2. Owner's Name: Mark Zaninovich	
3. Agent to the Owner: Bill Nakata	

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

(WM) Based on information and belief formed after reasonable inquiry, the equipment identified in this application will continue to comply with the applicable federal requirement(s).

(WM) Based on information and belief formed after reasonable inquiry, the equipment identified in this application will comply with applicable federal requirement(s) that will become effective during the permit term, on a timely basis.

(WM) Corrected information will be provided to the District when I become aware that incorrect or incomplete information has been submitted.

(WM) 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:

Wm Nakata
Signature of Responsible Official

June 22, 2015
Date

William J. Nakata
Name of Responsible Official (please print)

Vice President - General 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.

Using the values in Sections VII.C.2 and VII.C.6 in the evaluation above, quarterly PE2 and quarterly PE1 can be calculated as follows:

$PE2_{quarterly}$ = $PE2_{annual}$ ÷ 4 quarters/year
= 83 lb/year ÷ 4 qtr/year
= 20.75 lb-VOC/qtr

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

Quarterly NEC [QNEC] for S-7048-158 through -162			
	PE2 (lb/qtr)	PE1 (lb/qtr)	QNEC (lb/qtr)
VOC	19.25	9.75	9.5

Appendix E

Current PTOs

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-7048-158-1 **EXPIRATION DATE:** 03/31/2017

EQUIPMENT DESCRIPTION:
9,385 GALLON STEEL WINE STORAGE TANK #2001 WITH PRESSURE/VACUUM VALVE, INSTALLED IN AN ENCLOSED BUILDING

PERMIT UNIT REQUIREMENTS

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] Federally Enforceable Through Title V Permit
2. 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
3. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. 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] Federally Enforceable Through Title V Permit
4. 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] Federally Enforceable Through Title V Permit
5. 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 2201 and 4694] Federally Enforceable Through Title V Permit
6. Ethanol content of wine in this tank shall not exceed 20 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Annual tank throughput, calculated on a twelve month rolling basis, shall not exceed 200,000 gallons per year. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Daily tank throughput shall not exceed 20,000 gallons in any one day period. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The permittee shall maintain the following records: the volume and the ethanol concentration of each wine movement into the tank and the calculated 12 month rolling annual tank throughput (gallons of wine transferred per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-7048-159-1 **EXPIRATION DATE:** 03/31/2017

EQUIPMENT DESCRIPTION:
9,385 GALLON STEEL WINE STORAGE TANK #2002 WITH PRESSURE/VACUUM VALVE, INSTALLED IN AN ENCLOSED BUILDING

PERMIT UNIT REQUIREMENTS

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] Federally Enforceable Through Title V Permit
2. 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
3. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. 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] Federally Enforceable Through Title V Permit
4. 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] Federally Enforceable Through Title V Permit
5. 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 2201 and 4694] Federally Enforceable Through Title V Permit
6. Ethanol content of wine in this tank shall not exceed 20 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Annual tank throughput, calculated on a twelve month rolling basis, shall not exceed 200,000 gallons per year. [District Rule 2201] Federally Enforceable Through Title V Permit
8. Daily tank throughput shall not exceed 20,000 gallons in any one day period. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The permittee shall maintain the following records: the volume and the ethanol concentration of each wine movement into the tank and the calculated 12 month rolling annual tank throughput (gallons of wine transferred per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-7048-160-0 **EXPIRATION DATE:** 03/31/2017

EQUIPMENT DESCRIPTION:
9,385 GALLON STEEL WINE STORAGE TANK #2003 WITH PRESSURE/VACUUM VALVE, INSTALLED IN AN ENCLOSED BUILDING

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
3. Ethanol content of wine in this tank shall not exceed 20 percent by volume. [District Rule 2201]
4. Tank throughput shall not exceed either of the following limits: 20,000 gallons in any one day or 200,000 gallons per year. [District Rule 2201]
5. The wine storage tank shall be equipped and operated with a pressure-vacuum relief valve, set to operate within 10% of the maximum allowable working pressure of the tank and permanently labeled with the operating pressure settings. [District Rules 2201 and 4694]
6. The pressure-vacuum relief valve shall be installed and operated in accordance with the manufacturer's instructions. [District Rules 2201 and 4694]
7. The pressure-vacuum relief valve and wine 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]
8. The temperature of each batch of wine placed, stored, or held in the tank shall not exceed 75 degrees F after 60 days following completion of fermentation. [District Rules 2201 and 4694]
9. The maximum temperature of the each batch of wine placed, stored, or held in the tank shall be recorded weekly. [District Rule 4694]
10. Daily records of filling and emptying operations shall be kept for this tank including the date of the operation, a unique identifier for each batch, the volume percent ethanol in the batch and the volume of wine transferred. [District Rules 2201 and 4694]
11. The wine batch identifier and volume stored in the tank shall be recorded weekly. [District Rule 4694]
12. Annual records of wine throughput shall be kept. [District Rule 4694]
13. 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 2201 and 4694]

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-7048-161-0 **EXPIRATION DATE:** 03/31/2017

EQUIPMENT DESCRIPTION:
9,385 GALLON STEEL WINE STORAGE TANK #2004 WITH PRESSURE/VACUUM VALVE, INSTALLED IN AN ENCLOSED BUILDING

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
3. Ethanol content of wine in this tank shall not exceed 20 percent by volume. [District Rule 2201]
4. Tank throughput shall not exceed either of the following limits: 20,000 gallons in any one day or 200,000 gallons per year. [District Rule 2201]
5. The wine storage tank shall be equipped and operated with a pressure-vacuum relief valve, set to operate within 10% of the maximum allowable working pressure of the tank and permanently labeled with the operating pressure settings. [District Rules 2201 and 4694]
6. The pressure-vacuum relief valve shall be installed and operated in accordance with the manufacturer's instructions. [District Rules 2201 and 4694]
7. The pressure-vacuum relief valve and wine 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]
8. The temperature of each batch of wine placed, stored, or held in the tank shall not exceed 75 degrees F after 60 days following completion of fermentation. [District Rules 2201 and 4694]
9. The maximum temperature of the each batch of wine placed, stored, or held in the tank shall be recorded weekly. [District Rule 4694]
10. Daily records of filling and emptying operations shall be kept for this tank including the date of the operation, a unique identifier for each batch, the volume percent ethanol in the batch and the volume of wine transferred. [District Rules 2201 and 4694]
11. The wine batch identifier and volume stored in the tank shall be recorded weekly. [District Rule 4694]
12. Annual records of wine throughput shall be kept. [District Rule 4694]
13. 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 2201 and 4694]

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-7048-162-0 **EXPIRATION DATE:** 03/31/2017

EQUIPMENT DESCRIPTION:
9,385 GALLON STEEL WINE STORAGE TANK #2005 WITH PRESSURE/VACUUM VALVE, INSTALLED IN AN ENCLOSED BUILDING

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
3. Ethanol content of wine in this tank shall not exceed 20 percent by volume. [District Rule 2201]
4. Tank throughput shall not exceed either of the following limits: 20,000 gallons in any one day or 200,000 gallons per year. [District Rule 2201]
5. The wine storage tank shall be equipped and operated with a pressure-vacuum relief valve, set to operate within 10% of the maximum allowable working pressure of the tank and permanently labeled with the operating pressure settings. [District Rules 2201 and 4694]
6. The pressure-vacuum relief valve shall be installed and operated in accordance with the manufacturer's instructions. [District Rules 2201 and 4694]
7. The pressure-vacuum relief valve and wine 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]
8. The temperature of each batch of wine placed, stored, or held in the tank shall not exceed 75 degrees F after 60 days following completion of fermentation. [District Rules 2201 and 4694]
9. The maximum temperature of the each batch of wine placed, stored, or held in the tank shall be recorded weekly. [District Rule 4694]
10. Daily records of filling and emptying operations shall be kept for this tank including the date of the operation, a unique identifier for each batch, the volume percent ethanol in the batch and the volume of wine transferred. [District Rules 2201 and 4694]
11. The wine batch identifier and volume stored in the tank shall be recorded weekly. [District Rule 4694]
12. Annual records of wine throughput shall be kept. [District Rule 4694]
13. 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 2201 and 4694]

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-7048-163-0 **EXPIRATION DATE:** 03/31/2017

EQUIPMENT DESCRIPTION:
9,385 GALLON STEEL WINE STORAGE TANK #2006 WITH PRESSURE/VACUUM VALVE, INSTALLED IN AN ENCLOSED BUILDING

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
3. Ethanol content of wine in this tank shall not exceed 20 percent by volume. [District Rule 2201]
4. Tank throughput shall not exceed either of the following limits: 20,000 gallons in any one day or 200,000 gallons per year. [District Rule 2201]
5. The wine storage tank shall be equipped and operated with a pressure-vacuum relief valve, set to operate within 10% of the maximum allowable working pressure of the tank and permanently labeled with the operating pressure settings. [District Rules 2201 and 4694]
6. The pressure-vacuum relief valve shall be installed and operated in accordance with the manufacturer's instructions. [District Rules 2201 and 4694]
7. The pressure-vacuum relief valve and wine 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]
8. The temperature of each batch of wine placed, stored, or held in the tank shall not exceed 75 degrees F after 60 days following completion of fermentation. [District Rules 2201 and 4694]
9. The maximum temperature of the each batch of wine placed, stored, or held in the tank shall be recorded weekly. [District Rule 4694]
10. Daily records of filling and emptying operations shall be kept for this tank including the date of the operation, a unique identifier for each batch, the volume percent ethanol in the batch and the volume of wine transferred. [District Rules 2201 and 4694]
11. The wine batch identifier and volume stored in the tank shall be recorded weekly. [District Rule 4694]
12. Annual records of wine throughput shall be kept. [District Rule 4694]
13. 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 2201 and 4694]

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-7048-164-0 **EXPIRATION DATE:** 03/31/2017

EQUIPMENT DESCRIPTION:
9,385 GALLON STEEL WINE STORAGE TANK #2007 WITH PRESSURE/VACUUM VALVE, INSTALLED IN AN ENCLOSED BUILDING

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
3. Ethanol content of wine in this tank shall not exceed 20 percent by volume. [District Rule 2201]
4. Tank throughput shall not exceed either of the following limits: 20,000 gallons in any one day or 200,000 gallons per year. [District Rule 2201]
5. The wine storage tank shall be equipped and operated with a pressure-vacuum relief valve, set to operate within 10% of the maximum allowable working pressure of the tank and permanently labeled with the operating pressure settings. [District Rules 2201 and 4694]
6. The pressure-vacuum relief valve shall be installed and operated in accordance with the manufacturer's instructions. [District Rules 2201 and 4694]
7. The pressure-vacuum relief valve and wine 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]
8. The temperature of each batch of wine placed, stored, or held in the tank shall not exceed 75 degrees F after 60 days following completion of fermentation. [District Rules 2201 and 4694]
9. The maximum temperature of the each batch of wine placed, stored, or held in the tank shall be recorded weekly. [District Rule 4694]
10. Daily records of filling and emptying operations shall be kept for this tank including the date of the operation, a unique identifier for each batch, the volume percent ethanol in the batch and the volume of wine transferred. [District Rules 2201 and 4694]
11. The wine batch identifier and volume stored in the tank shall be recorded weekly. [District Rule 4694]
12. Annual records of wine throughput shall be kept. [District Rule 4694]
13. 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 2201 and 4694]

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-7048-165-0 **EXPIRATION DATE:** 03/31/2017

EQUIPMENT DESCRIPTION:
9,385 GALLON STEEL WINE STORAGE TANK #2008 WITH PRESSURE/VACUUM VALVE, INSTALLED IN AN ENCLOSED BUILDING

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
3. Ethanol content of wine in this tank shall not exceed 20 percent by volume. [District Rule 2201]
4. Tank throughput shall not exceed either of the following limits: 20,000 gallons in any one day or 200,000 gallons per year. [District Rule 2201]
5. The wine storage tank shall be equipped and operated with a pressure-vacuum relief valve, set to operate within 10% of the maximum allowable working pressure of the tank and permanently labeled with the operating pressure settings. [District Rules 2201 and 4694]
6. The pressure-vacuum relief valve shall be installed and operated in accordance with the manufacturer's instructions. [District Rules 2201 and 4694]
7. The pressure-vacuum relief valve and wine 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]
8. The temperature of each batch of wine placed, stored, or held in the tank shall not exceed 75 degrees F after 60 days following completion of fermentation. [District Rules 2201 and 4694]
9. The maximum temperature of the each batch of wine placed, stored, or held in the tank shall be recorded weekly. [District Rule 4694]
10. Daily records of filling and emptying operations shall be kept for this tank including the date of the operation, a unique identifier for each batch, the volume percent ethanol in the batch and the volume of wine transferred. [District Rules 2201 and 4694]
11. The wine batch identifier and volume stored in the tank shall be recorded weekly. [District Rule 4694]
12. Annual records of wine throughput shall be kept. [District Rule 4694]
13. 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 2201 and 4694]

Appendix F

Draft ATCs

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: S-7048-158-3 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: ASV WINES INC
MAILING ADDRESS: 1998 ROAD 152
DELANO, CA 93215-9437

LOCATION: 31502 PETERSON RD
MCFARLAND, CA 93250

EQUIPMENT DESCRIPTION:
MODIFICATION OF 9,385 GALLON STEEL WINE STORAGE TANK #2001 WITH PRESSURE/VACUUM VALVE, INSTALLED IN AN ENCLOSED BUILDING: INCREASE ANNUAL THROUGHPUT AND ESTABLISH A SPECIFIC LIMITING CONDITION TO LIMIT COMBINED ANNUAL VOC EMISSIONS FROM UNITS S-7048-158 THROUGH -165

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 - 53 lb, 2nd quarter - 53 lb, 3rd quarter - 53 lb, and fourth quarter - 54 lb. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 04/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers C-1120-1 and/or N-892-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 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 Marjollet, Director of Permit Services
S-7048-158-3 Dec 4 2015 9:28AM – 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. 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] Federally Enforceable Through Title V Permit
8. Ethanol content of wine in this tank shall not exceed 20 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Annual throughput of wine stored in tanks listed in permits S-7048-158 through -165, calculated on a twelve month rolling basis, shall not exceed 4,200,000 gallons per year. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Daily tank throughput shall not exceed 20,000 gallons in any one day period. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
12. Records of the 12-month rolling storage throughput limit shall be maintained and updated monthly. [District Rule 2201] Federally Enforceable Through Title V Permit
13. If the throughput calculated for any rolling 12-month period exceeds the annual throughput limitation of this permit in a crush season, in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limit for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput are below the annual throughput limitation. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
15. 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] Federally Enforceable Through Title V Permit
16. 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 2201 and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: S-7048-159-3 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: ASV WINES INC
MAILING ADDRESS: 1998 ROAD 152
DELANO, CA 93215-9437

LOCATION: 31502 PETERSON RD
MCFARLAND, CA 93250

EQUIPMENT DESCRIPTION:
MODIFICATION OF 9,385 GALLON STEEL WINE STORAGE TANK #2002 WITH PRESSURE/VACUUM VALVE, INSTALLED IN AN ENCLOSED BUILDING: INCREASE ANNUAL THROUGHPUT AND ESTABLISH A SPECIFIC LIMITING CONDITION TO LIMIT COMBINED ANNUAL VOC EMISSIONS FROM UNITS S-7048-158 THROUGH -165

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 - 53 lb, 2nd quarter - 53 lb, 3rd quarter - 53 lb, and fourth quarter - 54 lb. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 04/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers C-1120-1 and/or N-892-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 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 Marjollet, Director of Permit Services
S-7048-159-3 Dec 4 2015 9:28AM -- 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. 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] Federally Enforceable Through Title V Permit
8. Ethanol content of wine in this tank shall not exceed 20 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Annual throughput of wine stored in tanks listed in permits S-7048-158 through -165, calculated on a twelve month rolling basis, shall not exceed 4,200,000 gallons per year. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Daily tank throughput shall not exceed 20,000 gallons in any one day period. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
12. Records of the 12-month rolling storage throughput limit shall be maintained and updated monthly. [District Rule 2201] Federally Enforceable Through Title V Permit
13. If the throughput calculated for any rolling 12-month period exceeds the annual throughput limitation of this permit in a crush season, in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limit for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput are below the annual throughput limitation. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
15. 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] Federally Enforceable Through Title V Permit
16. 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 2201 and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: S-7048-160-2 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: ASV WINES INC
MAILING ADDRESS: 1998 ROAD 152
DELANO, CA 93215-9437

LOCATION: 31502 PETERSON RD
MCFARLAND, CA 93250

EQUIPMENT DESCRIPTION:
MODIFICATION OF 9,385 GALLON STEEL WINE STORAGE TANK #2003 WITH PRESSURE/VACUUM VALVE, INSTALLED IN AN ENCLOSED BUILDING: INCREASE ANNUAL THROUGHPUT AND ESTABLISH A SPECIFIC LIMITING CONDITION TO LIMIT COMBINED ANNUAL VOC EMISSIONS FROM UNITS S-7048-158 THROUGH -165

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 - 53 lb, 2nd quarter - 53 lb, 3rd quarter - 53 lb, and fourth quarter - 54 lb. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 04/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers C-1120-1 and/or N-892-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 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 Marjollet, Director of Permit Services
S-7048-160-2 Dec 4 2015 9:28AM -- 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. 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] Federally Enforceable Through Title V Permit
8. Ethanol content of wine in this tank shall not exceed 20 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Annual throughput of wine stored in tanks listed in permits S-7048-158 through -165, calculated on a twelve month rolling basis, shall not exceed 4,200,000 gallons per year. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Daily tank throughput shall not exceed 20,000 gallons in any one day period. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
12. Records of the 12-month rolling storage throughput limit shall be maintained and updated monthly. [District Rule 2201] Federally Enforceable Through Title V Permit
13. If the throughput calculated for any rolling 12-month period exceeds the annual throughput limitation of this permit in a crush season, in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limit for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput are below the annual throughput limitation. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
15. 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] Federally Enforceable Through Title V Permit
16. 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 2201 and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: S-7048-161-2 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: ASV WINES INC
MAILING ADDRESS: 1998 ROAD 152
DELANO, CA 93215-9437

LOCATION: 31502 PETERSON RD
MCFARLAND, CA 93250

EQUIPMENT DESCRIPTION:
MODIFICATION OF 9,385 GALLON STEEL WINE STORAGE TANK #2004 WITH PRESSURE/VACUUM VALVE, INSTALLED IN AN ENCLOSED BUILDING: INCREASE ANNUAL THROUGHPUT AND ESTABLISH A SPECIFIC LIMITING CONDITION TO LIMIT COMBINED ANNUAL VOC EMISSIONS FROM UNITS S-7048-158 THROUGH -165

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 - 53 lb, 2nd quarter - 53 lb, 3rd quarter - 53 lb, and fourth quarter - 54 lb. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 04/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers C-1120-1 and/or N-892-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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Seyed Sadredin, Executive Director / APCO

DRAFT

Arnaud Marjollet, Director of Permit Services
S-7048-161-2 Dec 4 2015 9:28AM – 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. 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] Federally Enforceable Through Title V Permit
8. Ethanol content of wine in this tank shall not exceed 20 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Annual throughput of wine stored in tanks listed in permits S-7048-158 through -165, calculated on a twelve month rolling basis, shall not exceed 4,200,000 gallons per year. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Daily tank throughput shall not exceed 20,000 gallons in any one day period. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
12. Records of the 12-month rolling storage throughput limit shall be maintained and updated monthly. [District Rule 2201] Federally Enforceable Through Title V Permit
13. If the throughput calculated for any rolling 12-month period exceeds the annual throughput limitation of this permit in a crush season, in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limit for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput are below the annual throughput limitation. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
15. 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] Federally Enforceable Through Title V Permit
16. 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 2201 and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: S-7048-162-2 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: ASV WINES INC
MAILING ADDRESS: 1998 ROAD 152
DELANO, CA 93215-9437

LOCATION: 31502 PETERSON RD
MCFARLAND, CA 93250

EQUIPMENT DESCRIPTION:
MODIFICATION OF 9,385 GALLON STEEL WINE STORAGE TANK #2005 WITH PRESSURE/VACUUM VALVE, INSTALLED IN AN ENCLOSED BUILDING: INCREASE ANNUAL THROUGHPUT AND ESTABLISH A SPECIFIC LIMITING CONDITION TO LIMIT COMBINED ANNUAL VOC EMISSIONS FROM UNITS S-7048-158 THROUGH -165

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 - 53 lb, 2nd quarter - 53 lb, 3rd quarter - 53 lb, and fourth quarter - 54 lb. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 04/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers C-1120-1 and/or N-892-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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Seyed Sadredin, Executive Director / APCO

DRAFT

Arnaud Marjollet, Director of Permit Services
S-7048-162-2 Dec 4 2015 9:28AM – 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. 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] Federally Enforceable Through Title V Permit
8. Ethanol content of wine in this tank shall not exceed 20 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Annual throughput of wine stored in tanks listed in permits S-7048-158 through -165, calculated on a twelve month rolling basis, shall not exceed 4,200,000 gallons per year. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Daily tank throughput shall not exceed 20,000 gallons in any one day period. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
12. Records of the 12-month rolling storage throughput limit shall be maintained and updated monthly. [District Rule 2201] Federally Enforceable Through Title V Permit
13. If the throughput calculated for any rolling 12-month period exceeds the annual throughput limitation of this permit in a crush season, in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limit for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput are below the annual throughput limitation. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
15. 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] Federally Enforceable Through Title V Permit
16. 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 2201 and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: S-7048-163-2

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: ASV WINES INC
MAILING ADDRESS: 1998 ROAD 152
DELANO, CA 93215-9437

LOCATION: 31502 PETERSON RD
MCFARLAND, CA 93250

EQUIPMENT DESCRIPTION:
MODIFICATION OF 9,385 GALLON STEEL WINE STORAGE TANK #2006 WITH PRESSURE/VACUUM VALVE, INSTALLED IN AN ENCLOSED BUILDING: INCREASE ANNUAL THROUGHPUT AND ESTABLISH A SPECIFIC LIMITING CONDITION TO LIMIT COMBINED ANNUAL VOC EMISSIONS FROM UNITS S-7048-158 THROUGH -165

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 - 53 lb, 2nd quarter - 53 lb, 3rd quarter - 53 lb, and fourth quarter - 54 lb. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 04/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers C-1120-1 and/or N-892-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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Seyed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services
S-7048-163-2 : Dec 4 2015 9:28AM -- 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. 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] Federally Enforceable Through Title V Permit
8. Ethanol content of wine in this tank shall not exceed 20 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Annual throughput of wine stored in tanks listed in permits S-7048-158 through -165, calculated on a twelve month rolling basis, shall not exceed 4,200,000 gallons per year. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Daily tank throughput shall not exceed 20,000 gallons in any one day period. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
12. Records of the 12-month rolling storage throughput limit shall be maintained and updated monthly. [District Rule 2201] Federally Enforceable Through Title V Permit
13. If the throughput calculated for any rolling 12-month period exceeds the annual throughput limitation of this permit in a crush season, in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limit for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput are below the annual throughput limitation. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
15. 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] Federally Enforceable Through Title V Permit
16. 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 2201 and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: S-7048-164-2 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: ASV WINES INC
MAILING ADDRESS: 1998 ROAD 152
DELANO, CA 93215-9437

LOCATION: 31502 PETERSON RD
MCFARLAND, CA 93250

EQUIPMENT DESCRIPTION:
MODIFICATION OF 9,385 GALLON STEEL WINE STORAGE TANK #2007 WITH PRESSURE/VACUUM VALVE, INSTALLED IN AN ENCLOSED BUILDING: INCREASE ANNUAL THROUGHPUT AND ESTABLISH A SPECIFIC LIMITING CONDITION TO LIMIT COMBINED ANNUAL VOC EMISSIONS FROM UNITS S-7048-158 THROUGH -165

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 - 53 lb, 2nd quarter - 53 lb, 3rd quarter - 53 lb, and fourth quarter - 54 lb. Offsets shall be provided at the applicable offset ratio specified in Table 4-2 of Rule 2201 (as amended 04/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers C-1120-1 and/or N-892-1 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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Seyed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services
S-7048-164-2 Dec 4 2015 9:28AM – 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. 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] Federally Enforceable Through Title V Permit
8. Ethanol content of wine in this tank shall not exceed 20 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Annual throughput of wine stored in tanks listed in permits S-7048-158 through -165, calculated on a twelve month rolling basis, shall not exceed 4,200,000 gallons per year. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Daily tank throughput shall not exceed 20,000 gallons in any one day period. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
12. Records of the 12-month rolling storage throughput limit shall be maintained and updated monthly. [District Rule 2201] Federally Enforceable Through Title V Permit
13. If the throughput calculated for any rolling 12-month period exceeds the annual throughput limitation of this permit in a crush season, in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limit for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput are below the annual throughput limitation. [District Rule 2201] Federally Enforceable Through Title V Permit
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15. 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] Federally Enforceable Through Title V Permit
16. 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 2201 and 4694] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: S-7048-165-2 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: ASV WINES INC
MAILING ADDRESS: 1998 ROAD 152
DELANO, CA 93215-9437

LOCATION: 31502 PETERSON RD
MCFARLAND, CA 93250

EQUIPMENT DESCRIPTION:
MODIFICATION OF 9,385 GALLON STEEL WINE STORAGE TANK #2008 WITH PRESSURE/VACUUM VALVE, INSTALLED IN AN ENCLOSED BUILDING: INCREASE ANNUAL THROUGHPUT AND ESTABLISH A SPECIFIC LIMITING CONDITION TO LIMIT COMBINED ANNUAL VOC EMISSIONS FROM UNITS S-7048-158 THROUGH -165

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
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Seyed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services
S-7048-165-2 Dec 4 2015 9:28AM -- 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
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