



OCT 04 2011

Bill Nakata  
ASV Wines, Inc.  
1998 Road 152  
Delano, CA 93215-9437

**Re: Notice of Preliminary Decision - Authority to Construct**  
**Project Number: S-1110978**

Dear Mr. Nakata:

Enclosed for your review and comment is the District's analysis of ASV Wines, Inc.'s application for an Authority to Construct for six wine storage tanks, at 31502 Peterson Road, McFarland .

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. Please submit your written comments on this project within the 30-day public comment period which begins on the date of publication of the public notice.

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Mr. David Torii of Permit Services at 661-392-5665.

Sincerely,

David Warner  
Director of Permit Services

DW: DBT/cm

Enclosures

**Seyed Sadredin**  
Executive Director/Air Pollution Control Officer

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**Northern Region**  
4800 Enterprise Way  
Modesto, CA 95356-8718  
Tel: (209) 557-6400 FAX: (209) 557-6475

**Central Region (Main Office)**  
1990 E. Gettysburg Avenue  
Fresno, CA 93726-0244  
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**Southern Region**  
34946 Flyover Court  
Bakersfield, CA 93308-9725  
Tel: 661-392-5500 FAX: 661-392-5585



OCT 04 2011

Mike Tollstrup, Chief  
Project Assessment Branch  
Stationary Source Division  
California Air Resources Board  
PO Box 2815  
Sacramento, CA 95812-2815

**Re: Notice of Preliminary Decision - Authority to Construct  
Project Number: S-1110978**

Dear Mr. Tollstrup:

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OCT 04 2011

Gerardo C. Rios (AIR 3)  
Chief, Permits Office  
Air Division  
U.S. E.P.A. - Region IX  
75 Hawthorne Street  
San Francisco, CA 94105

**Re: Notice of Preliminary Decision - Authority to Construct  
Project Number: S-1110978**

Dear Mr. Rios:

Enclosed for your review and comment is the District's analysis of ASV Wines, Inc.'s application for an Authority to Construct for six wine storage tanks, at 31502 Peterson Road, McFarland .

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Bakersfield Californian

**NOTICE OF PRELIMINARY DECISION  
FOR THE PROPOSED ISSUANCE OF  
AN AUTHORITY TO CONSTRUCT**

NOTICE IS HEREBY GIVEN that the San Joaquin Valley Unified Air Pollution Control District solicits public comment on the proposed issuance of Authority to Construct to ASV Wines, Inc. for six wine storage tanks, at 31502 Peterson Road, McFarland .

The analysis of the regulatory basis for this proposed action, Project #S-1110978, is available for public inspection at [http://www.valleyair.org/notices/public\\_notices\\_idx.htm](http://www.valleyair.org/notices/public_notices_idx.htm) and the District office at the address below. Written comments on this project must be submitted within 30 days of the publication date of this notice to **DAVID WARNER, DIRECTOR OF PERMIT SERVICES, SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT, REGION'S ADDRESS.**

# San Joaquin Valley Air Pollution Control District Authority to Construct (ATC) Application Review Wine Storage Tanks

Facility Name: ASV Wines, Inc.  
Mailing Address: 1998 Road 152  
Delano, CA 93215-9437  
Contact Person: Bill Nakata  
Telephone: (661) 792-3159  
Fax: (661) 792-2875  
E-Mail: billnakata@asvwines.com  
Application #s: S-7048-160-0, 161-0, 162-0, 163-0, 164-0, 165-0  
Project #: 1110978  
Deemed Complete: 8/9/11

Engineer: David Torii  
Lead Engineer: Allan Phillips *ASV WARE*

SEP 28 2011

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## I. Proposal

ASV Wines, Inc. has requested Authority to Construct (ATC) permits to add six wine storage tanks to their bottling room.

## II. Applicable Rules

Rule 2201 New and Modified Stationary Source Review Rule (4/21/11)  
Rule 2520 Federally Mandated Operating Permits (6/21/01)  
Rule 4001 National Source Performance Standards (4/14/99)  
Rule 4002 National Emissions Standards for Hazardous Air Pollutants (5/20/04)  
Rule 4101 Visible Emissions (2/17/05)  
Rule 4102 Nuisance (12/17/92)  
Rule 4623 Storage of Organic Liquids (5/19/05)  
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, McFarland in Kern County. The District has verified that the facility 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 produces both red and white table wines, as well as other specialty wine products, from the fermentation of grapes. Wine containing up to 20% ethanol by volume may be stored in the tanks. After fermentation, the wine is placed in storage tanks for post fermentation treatment and storage prior to bottling. Post fermentation treatments such as racking, filtration, malolactic fermentation and bottling require the wine to be transferred from tank to tank a number of times during the storage period. During storage, the tanks are maintained as full as possible and a pressure/vacuum valve is installed to minimize the contact of the wine with air, which is detrimental to wine quality.

## **V. Equipment Description**

- 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

## **VI. Emission Control Technology Evaluation**

### New Wine Storage Tanks (-160-0 through -165-0)

VOCs (ethanol) are emitted from the storage tanks as a result of both working losses (which occur when the liquid level in the tank changes) and breathing losses (expansion and contraction effects due to temperature variations). The proposed pressure/vacuum valve limits these emissions by requiring the maximum amount of variation in tank pressure before allowing a tank to vent to the atmosphere or allowing air admission to the tank. Insulation of the tank in conjunction with the pressure vacuum valve essentially eliminates breathing losses by isolating the tank contents from diurnal variations in the tanks' environment. The proposed new tanks will be insulated by enclosing them in an insulated building. The proposed tanks satisfy BACT.

## **VII. General Calculations**

### **A. Assumptions**

- The only pollutant emitted by the new tanks is VOC in the form of ethanol.

- The maximum ethanol (EtOH) concentration of the stored wine is 20 % by volume (per applicant).
- Since the tanks are insulated, the breathing losses are considered to be negligible (per District FYI 114).
- Maximum daily throughput is 20,000 gallons per day for each tank (per applicant).
- Maximum annual throughput is 200,000 gallons per year for each tank (per applicant).
- The wine storage operation continues 365 days per year.

**B. Emission Factors**

New Wine Storage Tanks (-160-0 through -165-0)

Emission factors for working losses for the new wine storage tanks are taken from the table in FYI-114 (Appendix B) as follows:

Wine Storage Tank Daily Working Loss: 0.432 lb VOC/1,000 gal

Wine Storage Tank Annual Working Loss: 0.297 lb VOC/1,000 gal

**C. Calculations**

1. Pre-Project Potential to Emit (PE1)

Since these are new tanks, PE1 = 0 for all criteria pollutants.

2. Post Project Potential to Emit (PE2)

New Wine Storage Tanks (-160-0 through -165-0)

The PE2 for the new storage tanks is calculated below.

$$\text{Daily PE2}_{\text{working}} = \frac{0.432 \text{ lb VOC}}{1,000 \text{ gal}} \times \frac{20,000 \text{ gal}}{\text{day}} = \frac{8.6 \text{ lb VOC}}{\text{day}}$$

$$\text{Annual PE2}_{\text{working}} = \frac{0.297 \text{ lb VOC}}{1,000 \text{ gal}} \times \frac{200,000 \text{ gal}}{\text{year}} = \frac{59 \text{ lb VOC}}{\text{year}}$$

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

Facility 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)

Facility emissions are already above the Offset and Major Source Thresholds for VOC emissions; therefore, SSPE2 calculations are not necessary.

## 5. Major Source Determination

Pursuant to Section 3.23 of District Rule 2201, a major source is a stationary source with post-project emissions or a SSPE2, equal to or exceeding one or more of the threshold values. However, Section 3.23.2 states, "for the purposes of determining major source status, the SSPE2 shall not include 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 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.

summarizes the Major Source determination for this facility.

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.

## 6. Baseline Emissions (BE)

The BE calculation (in lbs/year) is performed pollutant-by-pollutant for each permit unit to determine the amount of offsets required, where necessary, when the SSPE1 is greater than the offset threshold. Pursuant to Rule 2201 Section 3.7, BE is calculated as follows.

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 Rule 2201 Section 3.22

Since these tanks are new emissions units, BE = PE1 = HAE = 0 for all pollutants.

## 7. SB288 Major Modification

SB288 Major Modification is defined in 40 CFR Part 51.165 as "*any physical change in or change in the method of operation of a major stationary source that would result in a significant net emissions increase of any pollutant subject to regulation under the Act.*"

As discussed in Section VII.C.5 above, the facility is an existing Major Source of VOC. However, the project by itself would need to be a significant increase in order to trigger a Major Modification. The emission units within this project do not have a total potential to emit, which is greater than Major Modification thresholds, as summarized in Table 1. Therefore, the project cannot be a significant increase and the project does not constitute a SB288 Major Modification.



Table 1 – SB288 Major Modification Thresholds (Existing Major Source) for ASV Wines, Inc.

| Permit Unit                  | NO <sub>x</sub> | SO <sub>x</sub> | PM <sub>10</sub> | VOC       |
|------------------------------|-----------------|-----------------|------------------|-----------|
|                              | lb/yr           | lb/yr           | lb/yr            | lb/yr     |
| Project Potential to Emit    | 0               | 0               | 0                | 354       |
| Major Modification Threshold | 50,000          | 80,000          | 30,000           | 50,000    |
| <b>Major Modification?</b>   | <b>No</b>       | <b>No</b>       | <b>No</b>        | <b>No</b> |

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.

The determination of Federal Major Modification is based on a two-step test. For the first step, only the emission *increases* are counted. Emission decreases may not cancel out the increases for this determination.

**Step 1**

For new emissions units, the increase in emissions is equal to the PE2 for each new unit included in this project.

The project's combined total emission increases are calculated in section VII.2, above, and compared to the Federal Major Modification Thresholds in the following table.

| Federal Major Modification Thresholds for Emission Increases |                                     |                    |                             |
|--|-------------------------------------|--------------------|-----------------------------|
| Pollutant  | Total Emissions Increases (lb/yr)** | Thresholds (lb/yr) | Federal Major Modification? |
| NO <sub>x</sub> *  | 0                                   | 0                  | No                          |
| VOC*   | 354                                 | 0                  | Yes                         |
| PM <sub>10</sub>   | 0                                   | 30,000             | No                          |
| PM <sub>2.5</sub>  | 0                                   | 20,000             | No                          |
| SO <sub>x</sub>  | 0                                   | 80,000             | No                          |

\*If there is any emission increases in NO<sub>x</sub> or VOC, this project is a Federal Major Modification and no further analysis is required.

9. 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 A.

**VIII. Compliance**

A. Rule 2201 New and Modified Stationary Source Review Rule

1. Best Available Control Technology (BACT)

a) BACT Applicability

BACT requirements are triggered on a pollutant-by-pollutant basis and on an emissions unit-by-emissions unit basis for the following<sup>1</sup>:

(1) New emissions units – PE > 2 lb/day

BACT is triggered by any new emissions unit with a potential to emit exceeding two pounds per day by pollutant. As seen in Section VII.C.2, the PE2 estimates exceed 2 lb/day for VOC for each of the new storage tanks, hence BACT is triggered.

(2) Relocation of emissions units – PE > 2 lb/day

The relocation from one Stationary Source to another of an existing emissions unit with a potential to emit exceeding two pounds per day is subject to BACT. As discussed in Section I above, there are no emission units proposed to be relocated from one stationary source to another. Therefore, BACT is not triggered under this section.

(3) Modification of emissions units – AIPE > 2 lb/day

BACT requirements need to be satisfied if a modification to an existing emissions unit with a valid PTO resulting in an AIPE exceeding two pounds per day occurs. As discussed in Section I above, no permit units will be modified. Therefore, BACT is not triggered under this section.

(4) Major Modification

Any new or modified emissions unit, in a stationary source project, which results in a major modification needs to satisfy BACT requirements. As discussed in Section VII.C.7 above, this project does constitute a major modification. Therefore, BACT is triggered under this section.

b) BACT Guideline

BACT Guideline 5.4.13, applies to non-concrete and non-wood wine storage tanks. [Wine Storage Tank (Non-Concrete and Non-Wood); see Appendix C].

c) 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 Top-Down BACT Analysis (see Appendix C), BACT has been satisfied with the following:

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<sup>1</sup> 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.

New Wine Storage Tanks (-160-0 through -165-0)

VOC: Tank in an enclosed, insulated, and temperature-controlled 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.

The following conditions will be placed on the ATCs to ensure compliance with the requirements of BACT:

- ❖ 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]
- ❖ The pressure/vacuum relief valve shall be installed and operated in accordance with the manufacturer's instructions. [District Rule 2201 and 4694]
- ❖ The pressure/vacuum relief valve and wine storage tank shall remain in a gas-tight condition exception 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 Rule 2201 and 4694]
- ❖ 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] N

2. Offsets

a) Offset Applicability

Pursuant to Section 4.5.3 of District Rule 2201, offset requirements shall be triggered on a pollutant-by-pollutant basis and shall be required if the SSPE2 equals to or exceeds the offset threshold levels in Table 4-1 of Rule 2201.

Table 2 compares the post-project facility-wide annual emissions in order to determine if offsets will be required for this project.

Table 2 – Offsets Applicability for ASV Wines, Inc.

| Pollutant        | SSPE2   | Offset Threshold | Offset Triggered? |
|------------------|---------|------------------|-------------------|
|                  | lb/yr   | lb/yr            |                   |
| NOx              | 0       | 20,000           | No                |
| SOx              | 0       | 54,750           | No                |
| PM <sub>10</sub> | 0       | 29,200           | No                |
| CO               | 0       | 200,000          | No                |
| VOC              | >20,000 | 20,000           | Yes               |

b) Quantity of Offsets Required

As seen in Section VII.C.5, the facility is an existing Major Source for VOCs and the SSPE2 is greater than the offset thresholds. Therefore, offset calculations will be required for this project. Per Sections 4.7.1 and 4.7.3 of Rule 2201, the quantity of offsets in pounds per year for VOC is calculated as follows:

$$\text{Offsets Required (lb/yr)} = (\Sigma[\text{PE2} - \text{BE}] + \text{ICCE}) \times \text{DOR}$$

Where,

PE2 = Post Project Potential to Emit, lb/yr (Section VII.C.2)

BE = Baseline Emissions, lb/yr (Section 0)

ICCE = Increase in Cargo Carrier Emissions, lb/yr

DOR = Distance Offset Ratio, determined pursuant to Rule 2201 Section 4.8

Since there is not an increase in the cargo carrier emissions, ICCE is equal to 0 for the following calculations.

Pursuant to Section 4.8 of District Rule 2201, the DOR shall be 1.0:1 if the emission offsets originated at the same Stationary Source as the new or modified emissions unit; 1.2:1 for Non-Major Sources if the emission offsets originated within 15 miles of the new or modified emissions unit's Stationary Source; 1.3:1 for Major Sources if the emission offsets originated within 15 miles of the new or modified emission unit's Stationary Source; or 1.5:1 if the emission offsets originated 15 miles or more from the new or modified emission unit's Stationary Source.

The facility is proposing to apply ERC certificates C-662-1 to offset the increase in VOC emission associated with the project. The above ERC certificate has the available quarterly VOC credits as follows. Therefore, the DOR will be 1.5:1 for this project.

Table 3 – Quantity of ERCs Available

| ERC Certificate | 1 <sup>st</sup> Qtr | 2 <sup>nd</sup> Qtr | 3 <sup>rd</sup> Qtr | 4 <sup>th</sup> Qtr |
|-----------------|---------------------|---------------------|---------------------|---------------------|
|                 | lb/Qtr              | lb/Qtr              | lb/Qtr              | lb/Qtr              |
| ERC C-662-1     | 0                   | 153                 | 817                 | 154                 |

New Wine Storage Tanks (-160-0 through -165-0)

$$\text{Offsets Required} = \frac{59 \text{ lb VOC}}{\text{tank-year}} \mid 6 \text{ tanks} = \frac{354 \text{ lb VOC}}{\text{year}}$$

$$\text{Offsets Required} = \frac{59 \text{ lb VOC}}{\text{tank-year}} \mid 6 \text{ tanks} \mid \frac{1.5}{1} = \frac{531 \text{ lb VOC}}{\text{year}}$$

Calculating the appropriate quarterly emissions to be offset is summarized in Table 4.

Table 4 – Offsets Required for ASV Wines, Inc.

| Pollutant | 1 <sup>st</sup> Qtr | 2 <sup>nd</sup> Qtr | 3 <sup>rd</sup> Qtr | 4 <sup>th</sup> Qtr | Total  |
|-----------|---------------------|---------------------|---------------------|---------------------|--------|
|           | lb/Qtr              | lb/Qtr              | lb/Qtr              | lb/Qtr              | lb/Qtr |
| VOC       | 133                 | 133                 | 133                 | 133                 | 531    |

Per Rule 2201 Section 4.13.8, Actual Emission Reductions (ERCs) that occurred from April through November (2<sup>nd</sup> and 3<sup>rd</sup> quarter), inclusive, may be used to offset increases in NOx or VOC during any period of the year. Since 3<sup>rd</sup> quarter VOC ERCs will be used to offset VOC emissions, the above applies to the VOC ERCs.

Table 5 – Offsets Applied to the Project

| ERC Certificate   | 1 <sup>st</sup> Qtr | 2 <sup>nd</sup> Qtr | 3 <sup>rd</sup> Qtr | 4 <sup>th</sup> Qtr |
|---|---------------------|---------------------|---------------------|---------------------|
|   | lb/Qtr              | lb/Qtr              | lb/Qtr              | lb/Qtr              |
| ERC C-662-1   | 0                   | 153                 | 817                 | 154                 |
| ERCs Applied (Table 3)                                  | 0                   | 133                 | 266                 | 133                 |
| 3 <sup>rd</sup> Qtr ERCs applied to 1 <sup>st</sup> Qtr |                     |                     | 133                 |                     |
| Remaining ERCs  | 0                   | 20                  | 551                 | 21                  |

As seen in Table 5, the facility has sufficient credits to fully offset the quarterly VOC emission increases associated with this project.

The following conditions will be placed on the ATCs to ensure compliance with the offset requirements:

- Prior to operating equipment under Authorities to Construct (ATCs) S-7048-160-0, 161-0, 162-0, 163-0, 164-0 and 165-0, the Permittee shall surrender VOC Emission Reduction Credits (ERCs) in the amount of 89 lb-VOC/quarter at the offset ratio specified in Table 4-2 or Rule 2201. Using ERC Certificate C-662-1, the offset ratio is 1.5:1 and the total amount of offsets required will be 133 lb-VOC/quarter. [District Rule 2201]
- ERC Certificate number 662-1 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which, this ATC will be re-issued, administratively, specifying the new proposal. [District Rule 2201]

3. Public Notification

a) Applicability

(1) New Major Source

Any new major source, which is a new facility that is also a Major Source, is required to be public noticed. Since this project is not a new facility, public noticing is not required under this requirement.

(2) Major Modification

As demonstrated in Section VII.C.7 above, this project constitutes a Major Modification. Therefore, public noticing for Title I Modification purposes is required.

(3) PE > 100 lb/day

Applications which include a new emissions unit with a Potential to Emit greater than 100 pounds during any one day for any pollutant will trigger public noticing requirements. As seen in Section VII.C.2, this project does not include a new emission unit which has daily emissions greater than 100 lb/day for any pollutant. Therefore, public notice requirements are not required.

(4) Offset Threshold

Public notice is required for any project that results in the increase of annual emissions from a point below to a point above an offsets threshold for any pollutant. Table 6 compares the SSPE1 and SSPE2 to the offset thresholds in order to determine if public notice is triggered under this category.

Table 6 – Public Notice Offsets Thresholds for ASV Wines, Inc.

| Pollutant        | SSPE2  | SSPE1  | Offset Threshold | Public Notice Required? |
|------------------|--------|--------|------------------|-------------------------|
|                  | lb/yr  | lb/yr  | lb/yr            |                         |
| NOx              | 0      | 0      | 20,000           | No                      |
| SOx              | 0      | 0      | 54,750           | No                      |
| PM <sub>10</sub> | 0      | 0      | 29,200           | No                      |
| CO               | 0      | 0      | 200,000          | No                      |
| VOC              | 71,020 | 70,666 | 20,000           | No                      |

As shown above, there are no thresholds surpassed with this project. Therefore public noticing requirements are not triggered.

(5) SSIPE > 20,000 lb/year

Public notice 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:

$$\text{SSIPE} = \text{SSPE2} - \text{SSPE1}$$

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 Table 7.

Table 7 – SSIPE for ASV Wines, Inc.

| Pollutant        | SSPE2  | SSPE1  | SSIPE | Offset Threshold | Public Notice Required? |
|------------------|--------|--------|-------|------------------|-------------------------|
|                  | lb/yr  | lb/yr  | lb/yr | lb/yr            |                         |
| NOx              | 0      | 0      | 0     | 20,000           | No                      |
| SOx              | 0      | 0      | 0     | 20,000           | No                      |
| PM <sub>10</sub> | 0      | 0      | 0     | 20,000           | No                      |
| CO               | 0      | 0      | 0     | 20,000           | No                      |
| VOC              | 71,020 | 70,666 | 354   | 20,000           | No                      |

As demonstrated above, the SSIPE for all pollutants were less than 20,000 lb/year. Therefore public notice requirements are not triggered.

b) Public Notice Action

As discussed above, this project will result in a Major Modification; therefore, public notice will be required for this project.

4. Daily Emission Limits (DELs)

Daily Emissions Limitations (DELs) and other enforceable conditions, as defined in Rule 2201 Section 3.15, restrict a unit's maximum daily emissions to a level at or below the emissions associated with the maximum design capacity. Per Sections 3.15.1 and 3.15.2, 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 these wine storage tanks, the emissions are limited by limits on ethanol content and temperature of the stored wine and by limiting the daily and annual number of tank filling cycles.

The following conditions will be placed on the ATCs to ensure compliance with the DEL requirements:

- ❖ Ethanol content of wine in this tank shall not exceed 20% by volume. [District Rule 2201]
- ❖ 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]
- ❖ 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]
- ❖ 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]

## 5. Compliance Assurance

### a) Source Testing

Pursuant to District Policy APR 1705, source testing is not required for any emission unit in this project to determine compliance with Rule 2201.

### b) Monitoring

No monitoring is required to demonstrate compliance with Rule 2201.

### c) Recordkeeping

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

#### New Wine Storage Tanks (-160-0 through -165-0)

- ❖ Daily records of filling and emptying operations shall be kept for this tank including the date of 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]
- ❖ Annual records of wine throughput shall be kept. [District Rule 4694]
- ❖ The wine batch identifier and volume stored in the tank shall be recorded weekly. [District Rule 4694]
- ❖ The maximum temperature of the each batch of wine placed, stored, or held in the tank shall be recorded weekly. [District Rule 4694]
- ❖ 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]

### d) Reporting

No reporting is required to demonstrate compliance with Rule 2201.

## B. Rule 2520 Federally Mandated Operating Permits

Since this facility's emissions exceed the Major Source thresholds of District Rule 2201, this facility is a Major Source. The facility is submitting a Title V Application in conjunction with this project.

## C. Rule 4001 New Source Performance Standards

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. Permit units S-7048-160-0 through -165-0 are wine storage tanks. 40 CFR 60, Subpart KB, Standards of Performance for Volatile Organic Liquid



Storage Vessels (Including Petroleum Liquid Storage Vessels) For Which Construction Commenced after July 23, 1984, applies to each storage vessel with a capacity greater than or equal to 75 cubic meters that is used to store volatile organic liquids for which construction, reconstruction, or modification is commenced after July 23, 1984. However, Section 60.110b(7) of Subpart KB states that vessels used to store beverage alcohol are exempt from the requirements of Subpart KB.

There are no other potentially applicable requirements of Rule 4001.

**D. 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 Part 63 apply to beverage alcohol storage tanks (Permit Units S-7048-160-0 through -160-5).

Permit Units S-7048-160-0 through -165-0 only emit ethanol, which is not classified as a Hazardous Air Pollutant (HAP). Since Rule 4002 is applicable to only sources of HAPs, the requirements of Rule 4002 are not applicable to these permit units.

There are no other potentially applicable requirements of Rule 4002.

**E. Rule 4101 Visible Emissions**

Section 5.0 stipulates that no person shall discharge into the atmosphere emissions of any air contaminant aggregating more than 3 minutes in any hour, which is as dark as or darker than Ringelmann 1 (or 20% opacity). Compliance with the visible emission limitations are expected provided the equipment is well maintained. Therefore, the following condition will be listed on each new ATC to ensure compliance.

- ❖ 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]

**F. 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 these operations provided the equipment is well maintained. Therefore, the following condition will be listed on each new ATC to ensure compliance.

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

**G. 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 4.1.1 provides an exemption for tanks used to store fermentation products, byproducts, or spirits. Permit Units S-7048-160-0 through -165-0 are storage tanks used to store wine. Thus, all are exempt from the provisions of Rule 4623.

#### H. 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. Since this project only proposes installation of wine storage tanks, only the storage tank provisions of this rule apply.

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

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

Section 5.2.2 requires the temperature of the stored wine be maintained at or below 75 °F as follows:

- Temperature of the stored wine shall be determined and recorded at least once per week.
- For each batch of wine, operators shall achieve the storage temperature of 75 °F or less within 60 days after completing fermentation.

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. Section 6.4.2 requires that weekly records be maintained that indicate the total gallons of wine stored in the tank and the maximum temperature of the stored wine.

The following conditions, previously mentioned, will be placed on each ATC to ensure compliance with the requirements of Section 5.2.1, 5.2.2, and 6.4:

- ❖ 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]
- ❖ The pressure/vacuum relief valve shall be installed and operated in accordance with the manufacturer's instructions. [District Rules 2201 and 4694]
  - ❖ 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]
  - ❖ The temperature of each batch of wine placed, stored, or held in the tank shall not exceed 75 °F after 60 days following completion of fermentation. [District Rules 4694]
  - ❖ 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]
  - ❖ The wine batch identifier and volume stored in the tank shall be recorded weekly. [District Rule 4694]
  - ❖ Annual records of wine throughput shall be kept. [District Rule 4694]
  - ❖ 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]
- I. California Health and 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 hazardous air pollutants (HAP) 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.

J. California Environmental Quality Act (CEQA)

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

- Inform governmental decision-makers and the public about the potential, significant environmental effects of proposed activities;
- Identify the ways that environmental damage can be avoided or significantly reduced;

- Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible; 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. (Per District Policy, project specific greenhouse gas emissions less than or equal to 230 metric tons-CO<sub>2</sub>e/year are considered to be zero for District permitting purposes and are exempt from further environmental review.)

#### **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 § 15031 (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. Issue Authorities to Construct S-7048-160-0 through -165-0 subject to the permit conditions on the attached Authority to Constructs in Appendix D.

#### **X. Billing Information**

Table 8 – Annual Permit Fees Summary for ASV Wines, Inc.

| Permit Unit  | Fee Schedule | Fee Description | Annual Fee |
|--------------|--------------|-----------------|------------|
| S-7048-160-0 | 3020-05-B    | 9,385 gallons   | \$93.00    |
| S-7048-161-0 | 3020-05-B    | 9,385 gallons   | \$93.00    |
| S-7048-162-0 | 3020-05-B    | 9,385 gallons   | \$93.00    |
| S-7048-163-0 | 3020-05-B    | 9,385 gallons   | \$93.00    |
| S-7048-164-0 | 3020-05-B    | 9,385 gallons   | \$93.00    |
| S-7048-165-0 | 3020-05-B    | 9,385 gallons   | \$93.00    |

**APPENDIX A**  
**Quarterly Net Emissions Change**

## 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 – BE, where:

QNEC = Quarterly Net Emissions Change for each emissions unit, lb/Qtr

PE2 = Post Project Potential to Emit for each emissions unit, lb/Qtr

BE = Baseline Emissions (per Rule 2201) for each emissions unit, lb/Qtr

The only pollutant emitted by emissions units S-7048-160-0 through -165-0 is VOC. In addition, these six units have identical emissions. The QNEC calculations will only be performed for one of the units and only for VOC emissions.

Using the values in Sections VII.C.2 and 0 in the evaluation above, quarterly PE2 and quarterly BE can be calculated for the wine storage tanks as follows:

$PE2_{quarterly} = PE2_{annual} / 4 \text{ quarters/yr} = 15 \text{ lb VOC/qtr}$  for each permit unit

$BE_{quarterly} = BE_{annual} / 4 \text{ quarters/yr} = 0$

|                         |                  |
|-------------------------|------------------|
| Permit #: S-7048-160-0  | Last Updated     |
| Facility: ASV WINES INC | 08/30/2011 TORID |

Equipment Pre-Baselined: NO

|  | <u>NOX</u> | <u>SOX</u> | <u>PM10</u> | <u>CO</u> | <u>VOC</u> |
|--|------------|------------|-------------|-----------|------------|
| Potential to Emit (lb/Yr):                           | 0.0        | 0.0        | 0.0         | 0.0       | 59.0       |
| Daily Emis. Limit (lb/Day)                           | 0.0        | 0.0        | 0.0         | 0.0       | 8.6        |
| Quarterly Net Emissions Change (lb/Qtr)              |            |            |             |           |            |
| Q1:  |            |            |             |           | 15.0       |
| Q2:  |            |            |             |           | 15.0       |
| Q3:  |            |            |             |           | 15.0       |
| Q4:  |            |            |             |           | 15.0       |
| Check if offsets are triggered but exemption applies | N          | N          | N           | N         | N          |
| Offset Ratio   |            |            |             |           |            |
| Quarterly Offset Amounts (lb/Qtr)                    |            |            |             |           |            |
| Q1:  |            |            |             |           |            |
| Q2:  |            |            |             |           |            |
| Q3:  |            |            |             |           |            |
| Q4:  |            |            |             |           |            |



|                         |                  |
|-------------------------|------------------|
| Permit #: S-7048-161-0  | Last Updated     |
| Facility: ASV WINES INC | 08/30/2011 TORID |

Equipment Pre-Baselined: NO

|  | <u>NOX</u> | <u>SOX</u> | <u>PM10</u> | <u>CO</u> | <u>VOC</u> |
|--|------------|------------|-------------|-----------|------------|
| Potential to Emit (lb/Yr):                           | 0.0        | 0.0        | 0.0         | 0.0       | 59.0       |
| Daily Emis. Limit (lb/Day)                           | 0.0        | 0.0        | 0.0         | 0.0       | 8.6        |
| Quarterly Net Emissions Change (lb/Qtr)              |            |            |             |           |            |
| Q1:  |            |            | 0.0         |           | 15.0       |
| Q2:  |            |            |             |           | 15.0       |
| Q3:  |            |            |             |           | 15.0       |
| Q4:  |            |            |             |           | 15.0       |
| Check if offsets are triggered but exemption applies | N          | N          | N           | N         | N          |
| Offset Ratio   |            |            |             |           |            |
| Quarterly Offset Amounts (lb/Qtr)                    |            |            |             |           |            |
| Q1:  |            |            |             |           |            |
| Q2:  |            |            |             |           |            |
| Q3:  |            |            |             |           |            |
| Q4:  |            |            |             |           |            |

|                         |                  |
|-------------------------|------------------|
| Permit #: S-7048-162-0  | Last Updated     |
| Facility: ASV WINES INC | 08/30/2011 TORID |

Equipment Pre-Baselined: NO

|  | <u>NOX</u> | <u>SOX</u> | <u>PM10</u> | <u>CO</u> | <u>VOC</u> |
|--|------------|------------|-------------|-----------|------------|
| Potential to Emit (lb/Yr):                           | 0.0        | 0.0        | 0.0         | 0.0       | 59.0       |
| Daily Emis. Limit (lb/Day)                           | 0.0        | 0.0        | 0.0         | 0.0       | 8.6        |
| Quarterly Net Emissions Change (lb/Qtr)              |            |            |             |           |            |
| Q1:  |            |            |             |           | 15.0       |
| Q2:  |            |            |             |           | 15.0       |
| Q3:  |            |            |             |           | 15.0       |
| Q4:  |            |            |             |           | 15.0       |
| Check if offsets are triggered but exemption applies | N          | N          | N           | N         | N          |
| Offset Ratio   |            |            |             |           |            |
| Quarterly Offset Amounts (lb/Qtr)                    |            |            |             |           |            |
| Q1:  |            |            |             |           |            |
| Q2:  |            |            |             |           |            |
| Q3:  |            |            |             |           |            |
| Q4:  |            |            |             |           |            |

|                         |                  |
|-------------------------|------------------|
| Permit #: S-7048-163-0  | Last Updated     |
| Facility: ASV WINES INC | 08/30/2011 TORID |

Equipment Pre-Baselined: NO

|  | <u>NOX</u> | <u>SOX</u> | <u>PM10</u> | <u>CO</u> | <u>VOC</u> |
|--|------------|------------|-------------|-----------|------------|
| Potential to Emit (lb/Yr):                           | 0.0        | 0.0        | 0.0         | 0.0       | 59.0       |
| Daily Emis. Limit (lb/Day)                           | 0.0        | 0.0        | 0.0         | 0.0       | 8.6        |
| Quarterly Net Emissions Change (lb/Qtr)              |            |            |             |           |            |
| Q1:  |            |            |             |           | 15.0       |
| Q2:  |            |            |             |           | 15.0       |
| Q3:  |            |            |             |           | 15.0       |
| Q4:  |            |            |             |           | 15.0       |
| Check if offsets are triggered but exemption applies | N          | N          | N           | N         | N          |
| Offset Ratio   |            |            |             |           |            |
| Quarterly Offset Amounts (lb/Qtr)                    |            |            |             |           |            |
| Q1:  |            |            |             |           |            |
| Q2:  |            |            |             |           |            |
| Q3:  |            |            |             |           |            |
| Q4:  |            |            |             |           |            |

|                         |                  |
|-------------------------|------------------|
| Permit #: S-7048-164-0  | Last Updated     |
| Facility: ASV WINES INC | 08/30/2011 TORID |

Equipment Pre-Baselined: NO

|  | <u>NOX</u> | <u>SOX</u> | <u>PM10</u> | <u>CO</u> | <u>VOC</u> |
|--|------------|------------|-------------|-----------|------------|
| Potential to Emit (lb/Yr):                           | 0.0        | 0.0        | 0.0         | 0.0       | 59.0       |
| Daily Emis. Limit (lb/Day)                           | 0.0        | 0.0        | 0.0         | 0.0       | 8.6        |
| Quarterly Net Emissions Change (lb/Qtr)              |            |            |             |           |            |
| Q1:  |            |            |             |           | 15.0       |
| Q2:  |            |            |             |           | 15.0       |
| Q3:  |            |            |             |           | 15.0       |
| Q4:  |            |            |             |           | 15.0       |
| Check if offsets are triggered but exemption applies | N          | N          | N           | N         | N          |
| Offset Ratio   |            |            |             |           |            |
| Quarterly Offset Amounts (lb/Qtr)                    |            |            |             |           |            |
| Q1:  |            |            |             |           |            |
| Q2:  |            |            |             |           |            |
| Q3:  |            |            |             |           |            |
| Q4:  |            |            |             |           |            |

|                         |                  |
|-------------------------|------------------|
| Permit #: S-7048-165-0  | Last Updated     |
| Facility: ASV WINES INC | 08/30/2011 TORID |

Equipment Pre-Baselined: NO

|  | <u>NOX</u> | <u>SOX</u> | <u>PM10</u> | <u>CO</u> | <u>VOC</u> |
|--|------------|------------|-------------|-----------|------------|
| Potential to Emit (lb/Yr):                           | 0.0        | 0.0        | 0.0         | 0.0       | 59.0       |
| Daily Emis. Limit (lb/Day)                           | 0.0        | 0.0        | 0.0         | 0.0       | 8.6        |
| Quarterly Net Emissions Change (lb/Qtr)              |            |            |             |           |            |
| Q1:  |            |            |             |           | 15.0       |
| Q2:  |            |            |             |           | 15.0       |
| Q3:  |            |            |             |           | 15.0       |
| Q4:  |            |            |             |           | 15.0       |
| Check if offsets are triggered but exemption applies | N          | N          | N           | N         | N          |
| Offset Ratio   |            |            |             |           |            |
| Quarterly Offset Amounts (lb/Qtr)                    |            |            |             |           |            |
| Q1:  |            |            |             |           |            |
| Q2:  |            |            |             |           |            |
| Q3:  |            |            |             |           |            |
| Q4:  |            |            |             |           |            |

**APPENDIX B**  
**FYI-114**

## Wine and Brandy Storage Tank Emission Factors

### Breathing Loss Emission Factors

lb per day (or Year) per 1000 gallons nominal tank capacity

| Nominal Tank Volume (gallons) | 8 vol% Ethanol |        | 10 vol% Ethanol |        | 12 vol% Ethanol |        | 14 vol% Ethanol |        | 16 vol% Ethanol |        | 18 vol% Ethanol |        | 20 vol% Ethanol |        | 100 vol% Ethanol |        |
|-------------------------------|----------------|--------|-----------------|--------|-----------------|--------|-----------------|--------|-----------------|--------|-----------------|--------|-----------------|--------|------------------|--------|
|                               | Daily          | Annual | Daily           | Annual | Daily           | Annual | Daily           | Annual | Daily           | Annual | Daily           | Annual | Daily           | Annual | Daily            | Annual |
| 250                           | 0.00186        | 0.347  | 0.00240         | 0.450  | 0.00296         | 0.557  | 0.00358         | 0.664  | 0.00421         | 0.787  | 0.00490         | 0.909  | 0.00561         | 1.04   | 0.02650          | 4.53   |
| 400                           | 0.00186        | 0.347  | 0.00240         | 0.450  | 0.00296         | 0.556  | 0.00357         | 0.663  | 0.00421         | 0.786  | 0.00489         | 0.908  | 0.00561         | 1.04   | 0.02640          | 4.53   |
| 1,000                         | 0.00185        | 0.346  | 0.00239         | 0.448  | 0.00295         | 0.554  | 0.00356         | 0.661  | 0.00419         | 0.783  | 0.00487         | 0.905  | 0.00558         | 1.04   | 0.02630          | 4.53   |
| 5,000                         | 0.00181        | 0.340  | 0.00233         | 0.436  | 0.00288         | 0.539  | 0.00346         | 0.647  | 0.00408         | 0.762  | 0.00473         | 0.882  | 0.00541         | 1.01   | 0.02530          | 4.53   |
| 15,000                        | 0.00178        | 0.335  | 0.00229         | 0.431  | 0.00283         | 0.532  | 0.00340         | 0.638  | 0.00401         | 0.751  | 0.00464         | 0.869  | 0.00531         | 0.993  | 0.02460          | 4.43   |
| 25,000                        | 0.00178        | 0.335  | 0.00229         | 0.431  | 0.00282         | 0.531  | 0.00339         | 0.638  | 0.00399         | 0.750  | 0.00463         | 0.867  | 0.00529         | 0.991  | 0.02440          | 4.40   |
| 35,000                        | 0.00176        | 0.332  | 0.00226         | 0.426  | 0.00279         | 0.526  | 0.00335         | 0.631  | 0.00395         | 0.742  | 0.00457         | 0.858  | 0.00523         | 0.980  | 0.02380          | 4.34   |
| 45,000                        | 0.00175        | 0.331  | 0.00225         | 0.425  | 0.00278         | 0.524  | 0.00334         | 0.629  | 0.00393         | 0.739  | 0.00455         | 0.855  | 0.00471         | 0.976  | 0.02290          | 4.31   |
| 105,000                       | 0.00172        | 0.326  | 0.00221         | 0.419  | 0.00272         | 0.516  | 0.00327         | 0.618  | 0.00384         | 0.726  | 0.00444         | 0.839  | 0.00507         | 0.957  | 0.02210          | 4.18   |
| 205,000                       | 0.00169        | 0.321  | 0.00216         | 0.412  | 0.00267         | 0.507  | 0.00320         | 0.607  | 0.00375         | 0.712  | 0.00434         | 0.822  | 0.00495         | 0.938  | 0.02150          | 4.05   |
| 305,000                       | 0.00166        | 0.317  | 0.00213         | 0.406  | 0.00262         | 0.500  | 0.00314         | 0.599  | 0.00369         | 0.702  | 0.00426         | 0.810  | 0.00486         | 0.923  | 0.02110          | 3.96   |
| 405,000                       | 0.00165        | 0.315  | 0.00211         | 0.403  | 0.00259         | 0.495  | 0.00311         | 0.593  | 0.00364         | 0.695  | 0.00420         | 0.801  | 0.00479         | 0.913  | 0.02080          | 3.90   |
| 505,000                       | 0.00163        | 0.313  | 0.00209         | 0.400  | 0.00257         | 0.492  | 0.00308         | 0.588  | 0.00361         | 0.689  | 0.00416         | 0.795  | 0.00474         | 0.905  | 0.02040          | 3.85   |
| 605,000                       | 0.00162        | 0.310  | 0.00207         | 0.397  | 0.00254         | 0.488  | 0.00304         | 0.583  | 0.00357         | 0.683  | 0.00365         | 0.787  | 0.00468         | 0.896  | 0.02000          | 3.79   |

### Working Loss Emission Factors

lb per day (or year) per 1000 gallons tank throughput

|        |       |       |       |       |       |       |       |       |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|
| Daily  | 0.158 | 0.200 | 0.244 | 0.289 | 0.335 | 0.383 | 0.432 | 1.630 |
| Annual | 0.109 | 0.138 | 0.170 | 0.198 | 0.230 | 0.263 | 0.297 | 1.130 |

**APPENDIX C**  
**BACT**



San Joaquin Valley  
Unified Air Pollution Control District

**Best Available Control Technology (BACT) Guideline 5.4.13\***

Last Update 10/6/2009

**Wine Storage Tank**

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

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

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in 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 VOCs from Wine Storage Operations

### **Step 1 - Identify All Possible Control Technologies**

The SJVUAPCD BACT Clearinghouse guideline 5.4.13, 3rd quarter 2009, identifies achieved in practice and technologically feasible 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.
- 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**

- 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)

### **Step 4 - Cost Effectiveness Analysis**

The cost-effectiveness analysis will be performed based on the following items:

- Since the most cost effective approach will be achieved by installing a common control device for multiple tanks, the analysis will be based on this approach.
- The cost-effectiveness analysis will be based on a hypothetical "industry-typical" storage tank operation consisting of a battery of twelve storage tanks each with a capacity of 200,000 gallons. Total annual throughput for the hypothetical tank battery is 39.6 million gallons per year. Based on economies of scale, it is obvious that any control found to not be cost-effective at this level of throughput would be even less cost-effective at lower capacities.

### Industry Standard

During the development of District Rule 4694, it was determined that use of pressure/vacuum valves and some level of refrigeration on wine storage tanks is a standard operation for large wineries in the San Joaquin Valley. Additionally, all storage tanks are insulated. This was directly confirmed with four large wineries: Mission Bell (Madera), Gallo-Livingston, Bronco, and Robert Mondavi. Based on this, the wine storage tank VOC control requirements of District Rule 4694 and tank insulation are also determined to be "industry standard". The emission factor for

"industry standard" operation is determined based on Table 1 of the District's FYI-114, Estimating Emissions from Wine Storage Tanks for an insulated storage tank.

EF (industry standard) = 0.297 lb-VOC/1000 gal of wine throughput (20% alcohol vol.)

Uncontrolled emissions for Twelve-Tank Battery  
=  $(39.6 \times 10^6 \text{ gal/year}) \times (0.297 \text{ lb-VOC/1000 gal})$   
= 11,761 lb/year

#### Capture of VOCs with Thermal or Catalytic Oxidation/ Carbon Adsorption/Absorption or Condensation

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

#### Emission Reductions

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

= 11,761 lb-VOC/year  $\times$  0.98  
= 11,526 lb-VOC/year  
= 5.76 tons-VOC/year

#### Capital Investment for Installation of a VOC Collection System

##### *Design and Estimate Basis:*

- The basis and approach for the capital cost estimate for ductwork and support steel is summarized in the following table.
- The collection system consists of stainless steel plate ductwork (stainless steel is required due to cleanliness and sterilization requirements for wine quality considerations and due to the food grade product status) with isolation valving, connecting twelve 200,000 gallon 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 not be included in the cost estimate.

- A minimum duct size is established at 6 inches diameter at each tank to ensure minimal backpressure of the tank during filling operations and to provide adequate strength for spanning between supports. The main header is 12" diameter to handle the potential for simultaneously venting all tanks based on a potential fill rate of 1000 gpm for each tank (typical) and a duct velocity of 2000 feet per minute.
- The ductwork is designed with features to facilitate clean-in-place (CIP) operation to allow for periodic sterilization procedures as required for food grade products. The CIP system includes strategically placed spray nozzles on the ductwork for injecting sterilizing solutions into the system. Cost impacts to install CIP systems to clean the ducting are not included in the cost estimate.
- The ductwork is supported on a structural steel piperack mounted on drilled concrete piers, running through the new tank battery. Ducting elevations are established to allow continuous free draining to the separator located at the control device.
- Unit Installed Costs for Ductwork: A direct cost estimate for 12" diameter stainless steel ductwork, installed in a San Joaquin Valley winery, was taken from a study prepared by Eichleay Engineering for the Wine Institute in conjunction with development of District Rule 4694.<sup>1</sup> The estimate is based on 2nd quarter 2005 dollars, and includes fittings, miscellaneous duct supports and other materials plus field labor costs required to install the ductwork, but does not include other associated indirect costs such as construction management, engineering, owner's cost, contingency, etc. BACT Attachment 1 presents the development of unit installed costs for stainless steel ducting based on the costs derived from the Eichleay estimate.
- A linear foot of ducting required was extracted from the Eichleay Estimate for a similar system at Gallo-Livingston (See BACT Attachment 1 in project C1090293).
- Costs for structural steel supports and foundations were extracted from the Eichleay Estimate for a similar system at Gallo-Livingston (See BACT Attachment 1 in project C1090293).
- Sales tax of 8% was applied to all materials.
- Indirect costs include Engineering, Construction Expense and Contractor's Fee and Contingency. Factors for these costs are taken from Peters & Timmerhaus<sup>2</sup>.
- Capital costs taken from the Eichleay estimate are 2005 dollars. These are escalated to 2011 based on 3% overall escalation per year.

*Capital Investment for VOC Collection System:*

The following table itemizes the costs associated with VOC collection system.

---

<sup>1</sup> Eichleay Engineers of California, Fermenter VOC Emissions Control Cost Estimate (Revision 1), Eichleay Project Numbers 30892 and 30913, June 30, 2005

<sup>2</sup> Peters & Timmerhaus, Plant Design and Economics for Chemical Engineers, 2<sup>nd</sup> Edition, McGraw-Hill, 1968, p.140.



The total capital investment is annualized over 10 years assuming 10% interest. The following formula is used to determine the annualized cost:

$$ATCI = (P) \left[ \frac{(i)(1+i)^n}{(1+i)^n - 1} \right]$$

Where:

ATCI: Annualized total capital investment

P: Present value

I: Interest rate (District policy is to use 10%)

n: 10 years

$$ATCI = (\$988,603) \left[ \frac{(0.1)(1+0.1)^{10}}{(1+0.1)^{10} - 1} \right] = \frac{\$160,891}{\text{yr}}$$

$$\begin{aligned} \text{Cost of Reduction (\$/ton)} &= \$160,891/\text{yr} \div 5.76 \text{ tons-VOC/yr} \\ &= \$27,932/\text{ton-VOC} \end{aligned}$$

The cost of VOC reductions considering the capture system alone is more than the threshold limit of \$17,500/ton; therefore, none of the technically feasible option would be cost-effective.

#### **Step 5 - Select BACT**

The facility's proposed option of using insulated tank, pressure/vacuum valve set within 10% of the maximum allowable working pressure of the tank, "gas tight" tank operation and maintaining a continuous storage temperature of 75°F (or less) within 60 days of completion of fermentation would be the BACT for wine storage tanks.

## **BACT Attachment A**

### **Development of Direct Costs for Installation of a VOC Collection System on a Battery of Wine Storage Tanks**

## **Background**

During the development of District Rule 4694 (Wine Fermentation and Storage Tanks), The Wine Institute commissioned a study by Eichleay Engineers of California to develop costs for installation of VOC controls on all wine fermentation tanks at the Gallo winery located at Livingston, CA. The SJVAPCD participated in development of the study and in the review of the final draft. The District reviewed this estimate (Eichleay study) in conjunction with the development of District Rule 4694 (see Appendix C, Final Draft Staff Report - Rule 4694, December 15, 2005). The District's review indicated that, although the District took issue with various scope elements of the overall estimate, the estimating methodology employed appears to be fundamentally sound and follows accepted practice in the engineering and construction industry, accurately estimating the material quantities required for the stated scope and applying reasonable unit rates and costs for materials and labor for development of direct costs.

The Eichleay study developed detailed direct cost estimates for four separate tank batteries at Gallo-Livingston; VOC-1, '-2, '-3 and '-4 (see plot diagram in Attachment A). The direct cost estimate scope for each battery included a stainless steel ducting manifold system connected to a VOC control device and structural steel ducting supports with associated foundations. VOC-2 is a tank battery consisting of twelve (12) 200,000 gallon capacity tanks, identical to the hypothetical "industry-typical" tank battery installation which forms the basis for the cost effectiveness calculations for this BACT determination. The estimates of ducting, steel supports and foundations prepared in the Eichleay study for VOC-2 can be used as a basis to establish costs for the cost effectiveness evaluation required by this BACT determination.

## **Approach and Estimate Basis**

### **Ducting**

Attachment B is the detailed direct cost estimate from the Eichleay study for ducting for VOC-2 (annotated to indicate the required subtotals). Since VOC-2 at Gallo-Livingston consists of twelve fermentation tanks rather than storage tanks, the diameter of the estimated ductwork is larger than required for storage-only tanks due to the much larger vent rate from fermentation. However, since the tank sizes and layout considerations would not be affected by tank utilization, the Eichleay estimate of total linear footage and duct fittings ductwork can be utilized directly. The estimate details in Attachment B are utilized in the following manner to develop ducting costs for the "industry typical" tank battery:

- Linear feet of ductwork required is taken directly from the Eichleay estimate for VOC-2 (Attachment B). Linear feet required for individual branch connections to each tank is given by the footage of 12" diameter ducting while the linear footage for the main header is represented by the balance of the ductwork for VOC-2. Based on this approach, 75 linear feet of ducting is required for branch connections to the tanks while 870 feet of ducting is required for the main headers and the ducting run to the control device. Since the "industry-typical" ducting for storage tanks has been determined to be 6" diameter for branch connections and 12" diameter for the main header, the following material requirements are established for the "industry-typical" storage tank battery:



6" diameter ducting: 75 linear feet  
12" diameter ducting: 870 linear feet

- Unit direct cost (\$ per foot) of 12" diameter ducting can be determined by adding the labor and material costs required and dividing by the total linear footage of the particular diameter of ducting included in the estimate. For the 75 linear feet of 12" diameter ducting included in the Eichleay estimate for VOC-2, total labor and material costs were estimated at \$5,137 and \$5,650 respectively. Dividing each figure by 75 yields the unit labor and material costs for 12" diameter ducting:

Unit labor cost for 12" ducting: \$68.49/ft  
Unit material cost for 12" ducting: \$75.33/ft

- The Eichleay estimate did not include estimates of direct cost for 6" diameter duct. Therefore, it is necessary to develop a cost by appropriate factoring of the 12" diameter cost. To adjust the direct cost to a 6" system, cost equations for stainless steel plate ductwork are taken from the EPA Air Pollution Control Manual, Section 2, Chapter 1, Table 1.9, which indicates a cost equation for stainless steel plate duct as follows:

$$\text{Duct Cost} = 6.29 \times (\text{Duct Diameter}_{\text{inches}})^{1.23}$$

Using this equation form, it is apparent the the relative cost of 6" duct versus 12" duct can be calculated as follows:

$$6" \text{ Duct Cost} = 12" \text{ Duct Cost} \times (6/12)^{1.23}$$

Since the EPA cost manual develops total direct cost based on applying additional factors to the duct cost, the use of the above factor for adjustment of the total direct cost is consistent with EPA cost estimation methods.

Therefore,

$$\text{Unit Labor Cost for 6" Duct} = \$68.49 \times (6/12)^{1.23} = \$29.20/\text{linear foot}$$

$$\text{Unit Material Cost for 6" Duct} = \$75.33 \times (6/12)^{1.23} = \$32.11/\text{linear foot}$$

### Structural Steel

- Structural steel cost can be assumed to be the same for the "industry-typical" system as for VOC-2 since the heights and sizes of structure will be the same. Attachment C is the Eichleay estimate of structural steel required for VOC-2, annotated to show required subtotal. Based on this approach, structural steel cost for the industry-typical" case is as follows:

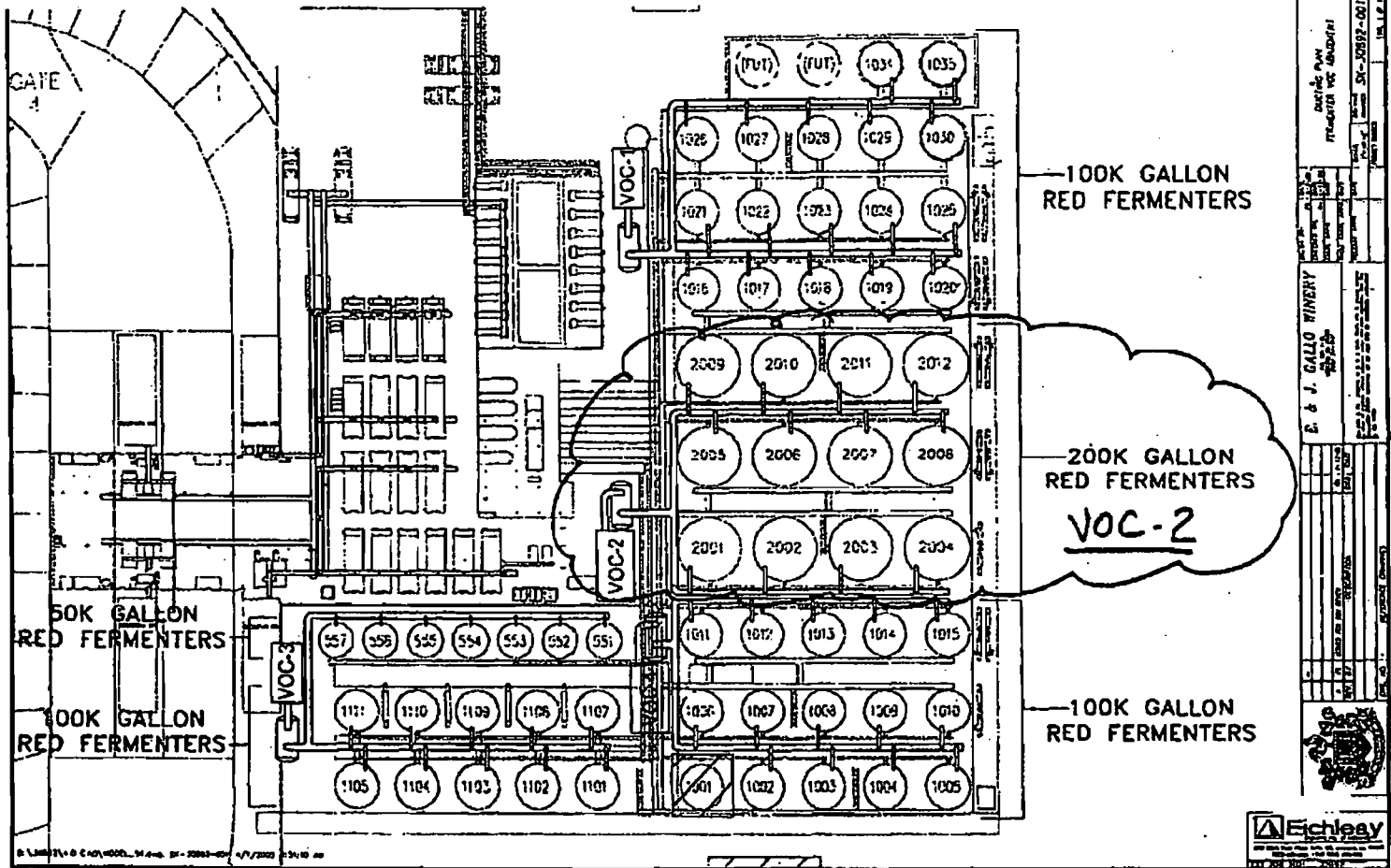
Purchased Structural Steel: \$287,630  
Labor for Erection of Structural Steel: \$45,273

## **Foundations**

- **Cost for foundations for the structural steel towers can be assumed to be the same for the "industry-typical" system as for VOC-2 since the heights and sizes of structure are assumed to be the same. Attachment D is the Eichleay estimate of the foundations required for VOC-2, annotated to show required subtotal. Pricing is based on a subcontract price including labor and materials. Based on this approach, 32 drilled concrete piers are required at a subcontract cost of \$1,000 each.**

**Attachment B**

**Plot Plan for Gallo-Livingston (Eichleay Study)**



**Attachment C**  
**Ducting Costs for VOC-2 (Eichleay Study)**

Client Name: Wine Institute  
 Job Number: 30913  
 Job Title: Fermenter VOC Emissions - Livingston West Side Fermenters



Eichlly  
 Engineers Inc. of CA

PROCESSED BY: [Signature]

Estimated By: P.H.M.  
 Checked By: R.M.  
 Rev. 2 Date: 6/24/05

| CODE  | ITEM DESCRIPTION        | QUANT | UNIT | MHR/UNIT | TOTAL MHRS | UNIT COSTS |          |         | TOTAL COSTS |        |      | TOTAL |         |
|-------|-------------------------|-------|------|----------|------------|------------|----------|---------|-------------|--------|------|-------|---------|
|       |                         |       |      |          |            | \$/Hr      | MATL     | SUBCON. | TOTAL       | LABOR  | MATL |       | SUBCON. |
| 1     | Bolt up                 | 100   | ea   | 6.5      | 650        | 65.00      |          |         | 422.50      | 42,250 |      |       | 42,250  |
| 1     | Handle                  | 98    | ea   | 7.2      | 691.2      | 65.00      |          |         | 468.00      | 64,828 |      |       | 44,928  |
| 1     | Install                 | 20    | lot  | 3        | 60         | 65.00      |          |         | 195.00      | 3,900  |      |       | 3,900   |
| VOC-2 |                         |       |      |          |            |            |          |         |             |        |      |       |         |
| 2     | 12" Duct                | 75    | ft   |          |            |            | 62.00    |         | 62.00       |        |      |       | 4,650   |
| 2     | 12" Duct misc. fittings | 1     | lot  |          |            |            | 1,000.00 |         | 1,000.00    |        |      |       | 1,000   |
| 2     | Bolt up                 | 21    | ea   | 1.5      | 31.5       | 65.00      |          |         | 97.50       | 2,048  |      |       | 2,048   |
| 2     | Handle                  | 19    | ea   | 2.08     | 39.52      | 65.00      |          |         | 135.20      | 2,569  |      |       | 2,569   |
| 2     | Install                 | 4     | lot  | 2        | 8          | 65.00      |          |         | 30.00       | 520    |      |       | 520     |
| 2     | 18" Duct                | 65    | ft   |          |            |            | 88.00    |         | 88.00       |        |      |       | 5,990   |
| 2     | 18" Duct misc. fittings | 1     | lot  |          |            |            | 2,000.00 |         | 2,000.00    |        |      |       | 2,000   |
| 2     | Bolt up                 | 18    | ea   | 3        | 57         | 65.00      |          |         | 195.00      | 3,705  |      |       | 3,705   |
| 2     | Handle                  | 17    | ea   | 3.52     | 59.84      | 65.00      |          |         | 228.80      | 3,890  |      |       | 3,890   |
| 2     | Install                 | 3     | lot  | 2        | 6          | 65.00      |          |         | 130.00      | 390    |      |       | 390     |
| 2     | 22" Duct                | 30    | ft   |          |            |            | 99.00    |         | 99.00       |        |      |       | 4,950   |
| 2     | 22" Duct misc. fittings | 1     | lot  |          |            |            | 2,000.00 |         | 2,000.00    |        |      |       | 2,000   |
| 2     | Bolt up                 | 15    | ea   | 4        | 60         | 65.00      |          |         | 260.00      | 3,900  |      |       | 3,900   |
| 2     | Handle                  | 13    | ea   | 4.6      | 59.8       | 65.00      |          |         | 299.00      | 3,887  |      |       | 3,887   |
| 2     | Install                 | 3     | lot  | 3        | 9          | 65.00      |          |         | 195.00      | 585    |      |       | 585     |
| 2     | 24" Duct                | 35    | ft   |          |            |            | 108.00   |         | 108.00      |        |      |       | 3,710   |
| 2     | 24" Duct misc. fittings | 1     | lot  |          |            |            | 3,000.00 |         | 3,000.00    |        |      |       | 3,000   |
| 2     | Bolt up                 | 11    | ea   | 4        | 44         | 65.00      |          |         | 260.00      | 2,880  |      |       | 2,880   |
| 2     | Handle                  | 9     | ea   | 4.6      | 41.4       | 65.00      |          |         | 299.00      | 2,691  |      |       | 2,691   |
| 2     | Install                 | 2     | lot  | 3        | 6          | 65.00      |          |         | 195.00      | 390    |      |       | 390     |
| 2     | 28" Duct                | 15    | ft   |          |            |            | 119.00   |         | 119.00      |        |      |       | 1,785   |
| 2     | 28" Duct misc. fittings | 1     | lot  |          |            |            | 2,000.00 |         | 2,000.00    |        |      |       | 2,000   |
| 2     | Bolt up                 | 5     | ea   | 5.5      | 27.5       | 65.00      |          |         | 357.50      | 1,788  |      |       | 1,788   |
| 2     | Handle                  | 4     | ea   | 5.32     | 21.28      | 65.00      |          |         | 345.80      | 1,383  |      |       | 1,383   |

*Total Ducting > 12" dia = 870'*

*Cost for 15' of 12" duct 5,650*

*Cost for 15' of labor & matl 5,137*

**Attachment D**  
**Structural Steel Costs for VOC-2 (Eichleay Study)**



**Eichle**  
Engineers Inc. of CA

Client Name: Wine Institute

Job Number: 30913

Job Title: Fermenter VOC Emissions - Livingston West Side Fermenters

~~RESTRICTED INFORMATION~~

Estimated By: P.H.M.

Checked By: R.A.

Rev. 2 Date: 6/24/05

| CODE | ITEM DESCRIPTION        | QUANT | UNIT | MHR/UNIT | TOTAL MHR | UNIT COSTS |           |         | TOTAL COSTS |        |         | TOTAL   |
|------|-------------------------|-------|------|----------|-----------|------------|-----------|---------|-------------|--------|---------|---------|
|      |                         |       |      |          |           | \$ / Hr    | MATL      | SUBCON. | TOTAL       | LABOR  | MATL    |         |
| 2    | Install                 | 1     | lot  | 3        | 3         | 65.00      |           |         | 185.00      | 195    |         | 195     |
| 2    | 30" Duct                | 25    | ft   |          |           |            | 128.00    |         | 128.00      |        | 3,200   | 3,200   |
| 2    | 30" Duct misc. fittings | 1     | lot  |          |           |            | 2,000.00  |         | 2,000.00    |        | 2,000   | 2,000   |
| 2    | Bolt up                 | 6     | ea   | 5.5      | 44        | 65.00      |           |         | 357.90      | 2,860  |         | 2,860   |
| 2    | Handle                  | 6     | ea   | 5.32     | 31.92     | 65.00      |           |         | 345.80      | 2,075  |         | 2,075   |
| 2    | Install                 | 1     | lot  | 3        | 3         | 65.00      |           |         | 185.00      | 185    |         | 185     |
| 2    | 32" Duct                | 265   | ft   |          |           |            | 177.00    |         | 177.00      |        | 46,905  | 46,905  |
| 2    | 32" Duct misc. fittings | 1     | lot  |          |           |            | 4,500.00  |         | 4,500.00    |        | 4,500   | 4,500   |
| 2    | Bolt up                 | 68    | ea   | 8        | 408       | 65.00      |           |         | 390.00      | 26,520 |         | 26,520  |
| 2    | Handle                  | 66    | ea   | 6        | 396       | 65.00      |           |         | 390.00      | 25,740 |         | 25,740  |
| 2    | Install                 | 13    | lot  | 3        | 39        | 65.00      |           |         | 185.00      | 2,535  |         | 2,535   |
| 2    | 42" Duct                | 415   | ft   |          |           |            | 242.00    |         | 242.00      |        | 100,430 | 100,430 |
| 2    | 42" Duct misc. fittings | 1     | lot  |          |           |            | 25,000.00 |         | 25,000.00   |        | 25,000  | 25,000  |
| 2    | Bolt up                 | 115   | ea   | 8.5      | 747.5     | 65.00      |           |         | 422.50      | 48,588 |         | 48,588  |
| 2    | Handle                  | 104   | ea   | 7.12     | 740.48    | 65.00      |           |         | 462.80      | 48,131 |         | 48,131  |
| 2    | Install                 | 21    | lot  | 4        | 84        | 65.00      |           |         | 260.00      | 5,460  |         | 5,460   |
|      | VOC-3                   |       |      |          |           |            |           |         |             |        |         |         |
| 3    | 6" Duct                 | 25    | ft   |          |           |            | 38.00     |         | 38.00       |        | 950     | 950     |
| 3    | 6" Duct misc. fittings  | 1     | lot  |          |           |            | 500.00    |         | 500.00      |        | 500     | 500     |
| 3    | Bolt up                 | 7     | ea   | 1        | 7         | 65.00      |           |         | 65.00       | 455    |         | 455     |
| 3    | Handle                  | 8     | ea   | 1.4      | 8.4       | 65.00      |           |         | 81.00       | 548    |         | 548     |
| 3    | Install                 | 1     | lot  | 1.5      | 1.5       | 65.00      |           |         | 87.50       | 98     |         | 98      |
| 3    | 10" Duct                | 35    | ft   |          |           |            | 34.00     |         | 34.00       |        | 1,690   | 1,690   |
| 3    | 10" Duct misc. fittings | 1     | lot  |          |           |            | 1,000.00  |         | 1,000.00    |        | 1,000   | 1,000   |
| 3    | Bolt up                 | 11    | ea   | 1.5      | 16.5      | 65.00      |           |         | 97.50       | 1,073  |         | 1,073   |
| 3    | Handle                  | 9     | ea   | 1.72     | 15.48     | 65.00      |           |         | 111.82      | 1,006  |         | 1,006   |
| 3    | Install                 | 2     | lot  | 2        | 4         | 65.00      |           |         | 130.00      | 260    |         | 260     |
| 3    | 12" Duct                | 70    | ft   |          |           |            | 62.00     |         | 62.00       |        | 4,340   | 4,340   |



**Attachment E**

**Foundation Costs for VOC-2 (Eichleay Study)**



**Eichler**  
Engineers Inc. of CA

Client Name: Wine Institute  
Job Number: 30913  
Job Title: Fermenter VOC Emissions - Livingston West Side Fermenters

**ESTIMATE**

Estimated By: P.M.M.  
Checked By: R.H.  
Rev. 2 Date: 6/24/05

O:\30913\5.0 Design Documents\Estimates\Rev. 2\Living

| CODE | ITEM DESCRIPTION   | QUANT | UNIT | MHR/UNIT | TOTAL MHRS | UNIT COSTS |      |          | TOTAL COSTS |      |         | TOTAL          |                |
|------|--|-------|------|----------|------------|------------|------|----------|-------------|------|---------|----------------|----------------|
|      |  |       |      |          |            | \$/hr      | MATL | SUBCON.  | LABOR       | MATL | SUBCON. |                |                |
|      | 030 - Concrete   |       |      |          |            |            |      |          |             |      |         |                |                |
|      | VOC-1 Duct sections                                      |       |      |          |            |            |      |          |             |      |         |                |                |
|      | 1 Install drilled piers (20) rack #1                     | 20    | ea   |          |            |            |      | 1,000.00 | 1,000.00    |      |         | 20,000         | 20,000         |
|      | 1 Install drilled piers (20) rack #2                     | 20    | ea   |          |            |            |      | 1,000.00 | 1,000.00    |      |         | 20,000         | 20,000         |
|      | 1 Install drilled piers (42) for main rack inside plant  | 42    | ea   |          |            |            |      | 1,500.00 | 1,500.00    |      |         | 63,000         | 63,000         |
|      | 1 Install drilled piers (46) for main rack outside plant | 46    | ea   |          |            |            |      | 700.00   | 700.00      |      |         | 32,200         | 32,200         |
|      | 1 Install drilled piers (32) for main rack by VOC's      | 32    | ea   |          |            |            |      | 700.00   | 700.00      |      |         | 22,400         | 22,400         |
|      | 1 Install foundation for VOC-1 & tank                    | 110   | cy   |          |            |            |      | 450.00   | 450.00      |      |         | 49,500         | 49,500         |
|      | VOC-2 Duct sections                                      |       |      |          |            |            |      |          |             |      |         |                |                |
|      | 2 Install drilled piers (16) rack #3                     | 16    | ea   |          |            |            |      | 1,000.00 | 1,000.00    |      |         | 16,000         | 16,000         |
|      | 2 Install drilled piers (16) rack #4                     | 16    | ea   |          |            |            |      | 1,000.00 | 1,000.00    |      |         | 16,000         | 16,000         |
|      | 2 Install foundation for VOC-1 & tank                    | 110   | cy   |          |            |            |      | 450.00   | 450.00      |      |         | 49,500         | 49,500         |
|      | VOC-3 Duct sections                                      |       |      |          |            |            |      |          |             |      |         |                |                |
|      | 3 Install drilled piers (16) rack #6                     | 16    | ea   |          |            |            |      | 1,000.00 | 1,000.00    |      |         | 16,000         | 16,000         |
|      | 3 Install drilled piers (20) rack #7                     | 20    | ea   |          |            |            |      | 1,000.00 | 1,000.00    |      |         | 20,000         | 20,000         |
|      | 3 Install foundation for VOC-1 & tank                    | 110   | cy   |          |            |            |      | 450.00   | 450.00      |      |         | 49,500         | 49,500         |
|      | VOC-4 Duct sections                                      |       |      |          |            |            |      |          |             |      |         |                |                |
|      | 4 Install drilled piers (0) rack #4                      |       | ea   |          |            |            |      | 1,000.00 | 1,000.00    |      |         |                |                |
|      | 4 Install drilled piers (20) rack #5                     | 20    | ea   |          |            |            |      | 1,000.00 | 1,000.00    |      |         | 20,000         | 20,000         |
|      | 4 Install foundation for VOC-1 & tank                    | 110   | cy   |          |            |            |      | 450.00   | 450.00      |      |         | 49,500         | 49,500         |
|      | Allowance for building pad                               | 3     | cy   |          |            |            |      |          |             |      |         | 1,350          | 1,350          |
|      | <b>TOTAL - Concrete</b>                                  |       |      |          |            |            |      |          |             |      |         | <b>444,950</b> | <b>444,950</b> |

*drilled piers*

**APPENDIX I**  
**Draft ATCs**

San Joaquin Valley  
Air Pollution Control District

**AUTHORITY TO CONSTRUCT**

PERMIT NO: S-7048-160-0

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

LOCATION: 31502 PETERSON ROAD  
MCFARLAND, CA 93250

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

ISSUANCE DATE: DRAFT  
**DRAFT**

**CONDITIONS**

1. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. {15} 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]

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

**DAVID WARNER**, Director of Permit Services

S-7048-160-0 : Sep 28 2011 8:41AM - TORID : Joint Inspection NOT Required

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]
14. Prior to operating equipment under Authorities to Construct (ATCs) S-7048-160-0, 161-0, 162-0, 163-0, 164-0 and 165-0, the Permittee shall surrender VOC Emission Reduction Credits (ERCs) in the amount of 89 lb-VOC/quarter at the offset ratio specified in Table 4-2 or Rule 2201. Using ERC Certificate C-662-1, the offset ratio is 1.5:1 and the total amount of offsets required will be 133 lb-VOC/quarter. [District Rule 2201]
15. ERC Certificate number 662-1 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which, this ATC will be re-issued, administratively, specifying the new proposal. [District Rule 2201]

DRAFT

San Joaquin Valley  
Air Pollution Control District

**AUTHORITY TO CONSTRUCT**

ISSUANCE DATE: DRAFT  
**DRAFT**

PERMIT NO: S-7048-161-0

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

LOCATION: 31502 PETERSON ROAD  
MCFARLAND, CA 93250

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

**CONDITIONS**

1. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. {15} 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]

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

**DAVID WARNER**, Director of Permit Services

S-7048-161-0 : Sep 28 2011 8:41AM - TORID : Joint Inspection NOT Required

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]
14. Prior to operating equipment under Authorities to Construct (ATCs) S-7048-160-0, 161-0, 162-0, 163-0, 164-0 and 165-0, the Permittee shall surrender VOC Emission Reduction Credits (ERCs) in the amount of 89 lb-VOC/quarter at the offset ratio specified in Table 4-2 or Rule 2201. Using ERC Certificate C-662-1, the offset ratio is 1.5:1 and the total amount of offsets required will be 133 lb-VOC/quarter. [District Rule 2201]
15. ERC Certificate number 662-1 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which, this ATC will be re-issued, administratively, specifying the new proposal. [District Rule 2201]

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San Joaquin Valley  
Air Pollution Control District

**AUTHORITY TO CONSTRUCT**

ISSUANCE DATE: DRAFT

PERMIT NO: S-7048-162-0

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

LOCATION: 31502 PETERSON ROAD  
MCFARLAND, CA 93250

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

**CONDITIONS**

1. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. {15} 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]

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

DAVID WARNER, Director of Permit Services

S-7048-162-0 : Sep 28 2011 8:41AM - TORID : Joint Inspection NOT Required



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]
14. Prior to operating equipment under Authorities to Construct (ATCs) S-7048-160-0, 161-0, 162-0, 163-0, 164-0 and 165-0, the Permittee shall surrender VOC Emission Reduction Credits (ERCs) in the amount of 89 lb-VOC/quarter at the offset ratio specified in Table 4-2 or Rule 2201. Using ERC Certificate C-662-1, the offset ratio is 1.5:1 and the total amount of offsets required will be 133 lb-VOC/quarter. [District Rule 2201]
15. ERC Certificate number 662-1 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which, this ATC will be re-issued, administratively, specifying the new proposal. [District Rule 2201]

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San Joaquin Valley  
Air Pollution Control District

**AUTHORITY TO CONSTRUCT**

ISSUANCE DATE: DRAFT  
**DRAFT**

PERMIT NO: S-7048-163-0

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

LOCATION: 31502 PETERSON ROAD  
MCFARLAND, CA 93250

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

**CONDITIONS**

1. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. {15} 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]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (861) 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

**DAVID WARNER**, Director of Permit Services

S-7048-163-0 : Sep 29 2011 @ 4:14AM - TORID : Joint Inspection NOT Required

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]
14. Prior to operating equipment under Authorities to Construct (ATCs) S-7048-160-0, 161-0, 162-0, 163-0, 164-0 and 165-0, the Permittee shall surrender VOC Emission Reduction Credits (ERCs) in the amount of 89 lb-VOC/quarter at the offset ratio specified in Table 4-2 or Rule 2201. Using ERC Certificate C-662-1, the offset ratio is 1.5:1 and the total amount of offsets required will be 133 lb-VOC/quarter. [District Rule 2201]
15. ERC Certificate number 662-1 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which, this ATC will be re-issued, administratively, specifying the new proposal. [District Rule 2201]

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San Joaquin Valley  
Air Pollution Control District

**AUTHORITY TO CONSTRUCT**

ISSUANCE DATE: DRAFT

PERMIT NO: S-7048-164-0

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

LOCATION: 31502 PETERSON ROAD  
MCFARLAND, CA 93250

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

**CONDITIONS**

1. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. {15} 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]

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

DAVID WARNER, Director of Permit Services

S-7048-164-0 : Sep 28 2011 8:41AM - TORID : Joint Inspection NOT Required

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]
14. Prior to operating equipment under Authorities to Construct (ATCs) S-7048-160-0, 161-0, 162-0, 163-0, 164-0 and 165-0, the Permittee shall surrender VOC Emission Reduction Credits (ERCs) in the amount of 89 lb-VOC/quarter at the offset ratio specified in Table 4-2 or Rule 2201. Using ERC Certificate C-662-1, the offset ratio is 1.5:1 and the total amount of offsets required will be 133 lb-VOC/quarter. [District Rule 2201]
15. ERC Certificate number 662-1 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which, this ATC will be re-issued, administratively, specifying the new proposal. [District Rule 2201]

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San Joaquin Valley  
Air Pollution Control District

**AUTHORITY TO CONSTRUCT**

ISSUANCE DATE: DRAFT  
**DRAFT**

PERMIT NO: S-7048-165-0

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

LOCATION: 31502 PETERSON ROAD  
MCFARLAND, CA 93250

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

**CONDITIONS**

1. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. {15} 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]

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

**DAVID WARNER**, Director of Permit Services

S-7048-165-0 : Sep 28 2011 8:41AM - TORID : Joint Inspection NOT Required

Southern Regional Office • 34946 Flyover Court • Bakersfield, CA 93308 • (661) 392-5500 • Fax (661) 392-5585

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]
14. Prior to operating equipment under Authorities to Construct (ATCs) S-7048-160-0, 161-0, 162-0, 163-0, 164-0 and 165-0, the Permittee shall surrender VOC Emission Reduction Credits (ERCs) in the amount of 89 lb-VOC/quarter at the offset ratio specified in Table 4-2 or Rule 2201. Using ERC Certificate C-662-1, the offset ratio is 1.5:1 and the total amount of offsets required will be 133 lb-VOC/quarter. [District Rule 2201]
15. ERC Certificate number 662-1 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which, this ATC will be re-issued, administratively, specifying the new proposal. [District Rule 2201]

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