



APR 03 2017

Ms. Andrea Staggs
CBUS OPS INC. (dba Woodbridge Winery)
PO Box 1260
Woodbridge, CA 95258

**Re: Notice of Preliminary Decision – ATC / Certificate of Conformity
District Facility # N-2321
Project # N-1170376**

Dear Ms. Staggs:

Enclosed for your review is the District's analysis of an application for Authorities to Construct for the facility identified above. You requested that Certificates of Conformity with the procedural requirements of 40 CFR Part 70 be issued with this project. This project is for the installation of twenty-four 108,000 gallon (each) wine storage tanks.

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

If you have any questions, please contact Mr. Nick Peirce, Permit Services Manager, at (209) 557-6400.

Thank you for your cooperation in this matter.

Sincerely,



Arnaud Marjollet
Director of Permit Services

Enclosures

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

Seyed Sadredin

Executive Director/Air Pollution Control Officer

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San Joaquin Valley Air Pollution Control District
Authority to Construct Application Review
Install 24 new wine storage tanks

Facility Name: CBUS Ops Inc. (DBA Woodbridge Winery)	Revised Date: March 27, 2017
Mailing Address: P.O. Box 1260 Woodbridge, CA 95258	Engineer: Wai-Man So Lead Engineer: Nick Peirce
Contact Person: Andrea Staggs Telephone: (209) 365 – 8188 Fax: (209) 200 – 5419 E-Mail: Andrea.staggs@cbrands.com	
Application #(s): N-2321-860-0 thru -883-0 Project #: N1170376 Deemed Complete: February 24, 2017	

I. Proposal

CBUS Ops Inc. (DBA Woodbridge Winery) hereinafter referred to as CBUS is requesting Authorities to Construct (ATC) to install twenty-four insulated 108,000 gallon (each) stainless steel wine tanks. ATCs N-2321-836-0 through -859-0 were originally issued for these twenty-four tanks to be used for fermentation and storage of red and white wine. CBUS is now proposing to use these tanks only for wine storage, so new ATCs will be issued for these twenty-four tanks, see draft ATCs in **Appendix A** of this document.

CBUS has a facility-wide specific limiting condition (SLC) of 1,167,178 pounds of VOC per year for wine fermentation and storage operations. The applicant is not proposing any changes to this limit with the addition of these twenty-four wine storage tanks.

CBUS possesses a Title V permit. The proposed project is a Significant Modification to the Title V permit, as this project triggers a Federal Major Modification under Rule 2201. The applicant has requested to issue the ATCs with a Certificate of Conformity (COC), which is EPA's 45-day review of the project prior to the issuance of the final ATCs. This project will be published in the local newspaper, Record, for public review and comment. The public comment period will last 30-days from the date of publication.

II. Applicable Rules

Rule 2201	New and Modified Stationary Source Review Rule (2/18/16)
Rule 2410	Prevention of Significant Deterioration (6/16/11)
Rule 2520	Federally Mandated Operating Permits (6/21/01)
Rule 4001	New Source Performance Standards (4/14/99)
Rule 4002	National Emissions Standards for Hazardous Air Pollutants (5/20/04)

Rule 4102 Nuisance (12/17/92)
Rule 4623 Storage of Organic Liquids (5/19/05)
Rule 4694 Wine Fermentation and Storage Tanks (12/15/05)
Rule 4695 Brandy Aging and Wine Aging Operations (9/17/09)
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 5950 East Woodbridge Road in Acampo, California. The equipment is not located within 1,000 feet of the outer boundary of a K-12 school. Therefore, the public notification requirement of California Health and Safety Code 42301.6 is not applicable to this project.

IV. Process Description

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

After transfer of the must (for red or white wine) to the fermentation tank, the must is inoculated with yeast which initiates the fermentation reactions. During fermentation, the yeast metabolizes the sugar in the grape juice, converting it to ethanol and carbon dioxide (CO₂) while releasing heat. Temperature is typically controlled by refrigeration, and is maintained at 45–65 °F for white wine fermentation and 70–95 °F for red wine fermentation. The sugar content of the fermentation mass is measured in °Brix (weight %) and is typically 22–26° for unfermented grape juice, dropping to 4° or less at the end of fermentation. Finished ethanol concentration is no more than 20 percent by volume. Batch fermentation requires 5 days per batch for red wine and 1-2 weeks per batch for white wine. VOCs are emitted during the fermentation process along with the CO₂. The VOCs consist primarily of ethanol along with small quantities of other fermentation byproducts.

Following the completion of fermentation, white wine is transferred directly to storage tanks. Red wine is first directed to the presses for separation of solids and then routed to the storage tanks. All tanks in the winery typically operate as two separate emissions units: (1) a fermentation operation during which the tank is vented directly to the atmosphere to release

the evolved CO₂ byproduct from the fermentation reaction; and (2) a storage operation during which the tank is closed to minimize contact with air and refrigerated to preserve the wine. Post-fermentation operations such as cold stabilization, racking, and filtration are conducted in the tanks, resulting in a number of inter-tank transfers during the period between the end of fermentation and bottling or bulk shipment. Storage operations are conducted year-round. VOC emissions occur primarily as a result of the inter-tank transfers which are necessitated by the post fermentation operations. The new tanks addressed under this project will be used strictly for wine storage operations.

V. Equipment Listing

Permit Unit	Equipment Description
N-2321-860-0	108,000 GALLON NOMINAL STAINLESS STEEL ENCLOSED TOP WINE STORAGE TANK (TANK #1675) WITH PRESSURE/VACUUM VALVE AND INSULATION
N-2321-861-0	108,000 GALLON NOMINAL STAINLESS STEEL ENCLOSED TOP WINE STORAGE TANK (TANK #1676) WITH PRESSURE/VACUUM VALVE AND INSULATION
N-2321-862-0	108,000 GALLON NOMINAL STAINLESS STEEL ENCLOSED TOP WINE STORAGE TANK (TANK #1677) WITH PRESSURE/VACUUM VALVE AND INSULATION
N-2321-863-0	108,000 GALLON NOMINAL STAINLESS STEEL ENCLOSED TOP WINE STORAGE TANK (TANK #1678) WITH PRESSURE/VACUUM VALVE AND INSULATION
N-2321-864-0	108,000 GALLON NOMINAL STAINLESS STEEL ENCLOSED TOP WINE STORAGE TANK (TANK #1679) WITH PRESSURE/VACUUM VALVE AND INSULATION
N-2321-865-0	108,000 GALLON NOMINAL STAINLESS STEEL ENCLOSED TOP WINE STORAGE TANK (TANK #1680) WITH PRESSURE/VACUUM VALVE AND INSULATION
N-2321-866-0	108,000 GALLON NOMINAL STAINLESS STEEL ENCLOSED TOP WINE STORAGE TANK (TANK #1681) WITH PRESSURE/VACUUM VALVE AND INSULATION
N-2321-867-0	108,000 GALLON NOMINAL STAINLESS STEEL ENCLOSED TOP WINE STORAGE TANK (TANK #1682) WITH PRESSURE/VACUUM VALVE AND INSULATION
N-2321-868-0	108,000 GALLON NOMINAL STAINLESS STEEL ENCLOSED TOP WINE STORAGE TANK (TANK #1683) WITH PRESSURE/VACUUM VALVE AND INSULATION
N-2321-869-0	108,000 GALLON NOMINAL STAINLESS STEEL ENCLOSED TOP WINE STORAGE TANK (TANK #1684) WITH PRESSURE/VACUUM VALVE AND INSULATION
N-2321-870-0	108,000 GALLON NOMINAL STAINLESS STEEL ENCLOSED TOP WINE STORAGE TANK (TANK #1685) WITH PRESSURE/VACUUM VALVE AND INSULATION
N-2321-871-0	108,000 GALLON NOMINAL STAINLESS STEEL ENCLOSED TOP WINE STORAGE TANK (TANK #1686) WITH PRESSURE/VACUUM VALVE AND INSULATION

N-2321-872-0	108,000 GALLON NOMINAL STAINLESS STEEL ENCLOSED TOP WINE STORAGE TANK (TANK #1687) WITH PRESSURE/VACUUM VALVE AND INSULATION
N-2321-873-0	108,000 GALLON NOMINAL STAINLESS STEEL ENCLOSED TOP WINE STORAGE TANK (TANK #1688) WITH PRESSURE/VACUUM VALVE AND INSULATION
N-2321-874-0	108,000 GALLON NOMINAL STAINLESS STEEL ENCLOSED TOP WINE STORAGE TANK (TANK #1689) WITH PRESSURE/VACUUM VALVE AND INSULATION
N-2321-875-0	108,000 GALLON NOMINAL STAINLESS STEEL ENCLOSED TOP WINE STORAGE TANK (TANK #1690) WITH PRESSURE/VACUUM VALVE AND INSULATION
N-2321-876-0	108,000 GALLON NOMINAL STAINLESS STEEL ENCLOSED TOP WINE STORAGE TANK (TANK #1691) WITH PRESSURE/VACUUM VALVE AND INSULATION
N-2321-877-0	108,000 GALLON NOMINAL STAINLESS STEEL ENCLOSED TOP WINE STORAGE TANK (TANK #1692) WITH PRESSURE/VACUUM VALVE AND INSULATION
N-2321-878-0	108,000 GALLON NOMINAL STAINLESS STEEL ENCLOSED TOP WINE STORAGE TANK (TANK #1693) WITH PRESSURE/VACUUM VALVE AND INSULATION
N-2321-879-0	108,000 GALLON NOMINAL STAINLESS STEEL ENCLOSED TOP WINE STORAGE TANK (TANK #1694) WITH PRESSURE/VACUUM VALVE AND INSULATION
N-2321-880-0	108,000 GALLON NOMINAL STAINLESS STEEL ENCLOSED TOP WINE STORAGE TANK (TANK #1695) WITH PRESSURE/VACUUM VALVE AND INSULATION
N-2321-881-0	108,000 GALLON NOMINAL STAINLESS STEEL ENCLOSED TOP WINE STORAGE TANK (TANK #1696) WITH PRESSURE/VACUUM VALVE AND INSULATION
N-2321-882-0	108,000 GALLON NOMINAL STAINLESS STEEL ENCLOSED TOP WINE STORAGE TANK (TANK #1697) WITH PRESSURE/VACUUM VALVE AND INSULATION
N-2321-883-0	108,000 GALLON NOMINAL STAINLESS STEEL ENCLOSED TOP WINE STORAGE TANK (TANK #1698) WITH PRESSURE/VACUUM VALVE AND INSULATION

In addition, per District practice, for new winery tank installations, the nominal tank size and dimensions are included on the ATC provided by the applicant. Upon completion of construction, CBUS will perform an actual tank capacity measurement on each tank which will establish the as built gauge rating of each tank. The equipment description of the Permit to Operate will then be administratively updated with the gauge rating of each tank. The following condition (typical condition shown for these identical tanks) will be included on each ATC to assure continued compliance:

- The nominal tank dimensions are 21.25 feet in diameter and 41 feet in height with a proposed volume of 108,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201]

VI. Emission Control Technology Evaluation

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

VII. General Calculations

A. Assumptions

- VOC is the only pollutant emitted associate with this project.
- Typically, for enclosed tanks with refrigeration and/or insulation (or equivalent) and P/V valves, breathing losses from storage of wine are assumed to be negligible.
- The wine processed in the proposed tanks contains a maximum of 17% alcohol by volume.
- A daily storage tank throughput will not exceed 4 times the maximum nominal tank capacity for each tank, equivalent to 432,000 gallons per day (per applicant).
- An annual storage tank throughput will not exceed 50 times the maximum nominal tank capacity for each tank, equivalent to 5,400,000 gallons per year (per applicant).
- Other assumptions will be stated as they are made.

B. Emission Factors

The VOC emission from each tank is calculated using EPA's Tanks 4.0.9d program. Therefore, a separate emission factor is not necessary.

C. Calculations

1. Pre-Project Potential to Emit (PE1)

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

2. Post Project Potential to Emit (PE2)

Per applicant request, EPA's Tanks 4.0.9d program is used to determine vapor emissions (ethanol and water mixture) using a custom chemical database for the wine with the maximum average annual ethanol concentration and the maximum ethanol concentration, each of 17.0% volume. See chemical database information and the Tanks 4.0.9d program reports in **Appendix B** of this document.

As listed in the chemical database, the average molecular weight (AMW) of the vapor from this mixture is 27.81 lb/mole for 17.0% ethanol. VOCs (ethanol) emissions are determined as follows:

$$AMW = y_a \times MW_a + (1 - y_a) \times MW_w,$$

Where,

AMW = Average Molecular Weight, (lb/mole)

Y_a = Molar fraction of ethanol,

MW_a = Molecular weight of ethanol, 46.02 (lb/mole)

MW_w = Molecular weight of water, 18.02 (lb/mole)

Solving for the molar fraction of ethanol,

$$y_a = [AMW - MW_w] \div [MW_a - MW_w]$$

With the maximum ethanol concentration of 17.0 % by volume, the molar fraction of ethanol in the mixture is calculated to:

$$\begin{aligned} y_a &= [AMW - MW_w] \div [MW_a - MW_w] \\ &= [27.81 - 18.02] \div [46.02 - 18.02] \\ &= 0.3496 \end{aligned}$$

N-2321-860-0 through -883-0: (24 New Wine Storage Tanks)

These are identical tanks. Therefore, only single calculation will be performed.

Daily Emissions:

To estimate the worst-case daily emissions, the "Net Throughput" entry on the Tanks model is set equal to 3,348,000 gallons (108,000 gallons per turnover x 31 days during the month of July) for the model run. Note that July is considered to be the hottest month in San Joaquin Valley. Per applicant, there is a maximum of four turnovers per day for each tank. Therefore, the maximum daily emission is equal to the emission from each turnover multiply by four turnovers per day.

Per Tanks 4.0.9d's reports, the monthly emission (July) from each tank is:

$$\text{Monthly PE (ethanol and water emissions)} = 1,511.28 \text{ lb/month/turnover}$$

The daily emission is calculated by dividing the month of July emissions by the number of days in the month, of 31 days.

$$\begin{aligned} \text{PE (ethanol and water emissions)} &= 1,511.28 \text{ lb/month/turnover} \div 31 \text{ day/month} \\ &= 48.75 \text{ lb/day/turnover} \end{aligned}$$

As calculated above, the molar fraction of ethanol in this mixture with maximum ethanol concentration of 17.0 % volume is equal to, $y_a = 0.3496$.

$$\begin{aligned} \text{PE (ethanol)} &= \{[\text{Daily PE (ethanol and water)}/AMW] \times y_a \times MW_a\} \\ &= \{[48.75/27.81] \times 0.3496 \times 46.02\} \\ &= 28.20 \text{ lb-ethanol/day/turnover (lb-VOC/day/turnover)} \end{aligned}$$

With maximum of 4 turnovers per day, the worst-case daily emission is calculated:

$$\begin{aligned}\text{Maximum Daily PE (ethanol)} &= 28.20 \text{ lb-ethanol/day/turnover} \times 4 \text{ turnovers} \\ &= 112.8 \text{ lb-ethanol/day (lb-VOC/day)}\end{aligned}$$

Annual Emissions:

Per Tanks 4.0.9d's report, the annual emission from each tank is:

$$\text{Annual PE (ethanol and water emissions)} = 1,076.59 \text{ lb/year}$$

$$\begin{aligned}\text{Annual PE (ethanol)} &= \{[\text{Annual PE (ethanol and water)}/\text{AMW}] \times y_a \times \text{MW}_a\} \\ &= \{[1,076.59/27.81] \times 0.3496 \times 46.02\} \\ &= 623 \text{ lb-ethanol/year (lb-VOC/year)}\end{aligned}$$

PE2				
Permit Number	Daily Throughput (gal/day)	Annual Throughput (gal/year)	Daily PE (lb-VOC/day)	Annual PE (lb-VOC/year)
N-2321-860-0	432,000 (gal/day) for each tank (108,000 gal/turnover x 4 turnover/day)	5,400,000 (gal/year) for each tank (108,000 gal/turnover x 50 turnover/year)	112.8	623
N-2321-861-0			112.8	623
N-2321-862-0			112.8	623
N-2321-863-0			112.8	623
N-2321-864-0			112.8	623
N-2321-865-0			112.8	623
N-2321-866-0			112.8	623
N-2321-867-0			112.8	623
N-2321-868-0			112.8	623
N-2321-869-0			112.8	623
N-2321-870-0			112.8	623
N-2321-871-0			112.8	623
N-2321-872-0			112.8	623
N-2321-873-0			112.8	623
N-2321-874-0			112.8	623
N-2321-875-0			112.8	623
N-2321-876-0			112.8	623
N-2321-877-0			112.8	623
N-2321-878-0			112.8	623
N-2321-879-0			112.8	623
N-2321-880-0			112.8	623
N-2321-881-0			112.8	623
N-2321-882-0			112.8	623
N-2321-883-0			112.8	623
Total				14,952

This facility has an existing specific limiting condition (SLC) that limits VOC emissions from all wine fermentation and wine storage operations to 1,167,178 pounds of VOC per year. The applicant is not proposing any changes to this SLC limit with the installation of these additional 24 wine storage tanks.

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

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

This project involves only VOC emissions, and the current VOC emissions from this facility are already above the Offset and Major Source Thresholds for VOC emissions. Therefore, SSPE1 calculations are not necessary.

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

Pursuant to District Rule 2201, the SSPE2 is the PE from all units with valid ATCs or PTOs at the Stationary Source and the quantity of ERCs which have been banked since September 19, 1991 for AER that have occurred at the source, and which have not been used on-site.

This project involves only VOC emissions, and the VOC emissions of this facility are already above the Offset and Major Source Thresholds for VOC emissions. Therefore, SSPE2 calculations are not necessary.

5. Major Source Determination

Rule 2201 Major Source Determination:

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

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

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

Rule 2410 Major Source Determination:

The facility or the equipment evaluated under this project is not listed as one of the categories specified in 40 CFR 52.21 (b)(1)(iii). Therefore the PSD Major Source threshold is 250 tpy for any regulated NSR pollutant.

As discussed above, this facility has an existing specific limiting condition (SLC) that limits VOC emissions from all wine fermentation and wine storage operations to 1,167,178 pounds of VOC per year, equivalent to 583.6 tons of VOC per year.

PSD Major Source Determination (tons/year)	
	VOC
Estimated Facility PE before Project Increase	583.6
PSD Major Source Thresholds	250
PSD Major Source ? (Y/N)	Yes

As shown above, the facility is an existing PSD major source for VOC.

6. Baseline Emissions (BE)

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

Pursuant to District Rule 2201, BE = PE1 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 District Rule 2201.

N-2321-860-0 through -883-0: (24 New Wine Storage Tanks)

These new emission units are being added to the facility's existing SLC of 1,167,178 pounds of VOC per year for wine fermentation and storage operations, and the facility is not proposing any change to the existing SLC limit as a result of this project. Pursuant to District Policy APR 1420, *NSR Calculations for Units with Specific Limiting Conditions* (3/12/07), the Baseline Emissions (BE) for units included in an SLC shall be the maximum combined emissions allowed for those units under the SLC.

Additionally, District Policy APR 1420 states that if the SLC is for a pollutant exceeding the Major Source threshold and any single unit under the SLC is not a Highly-Utilized, Fully-Offset, or Clean Emissions Units, then the sum of the actual emissions from all units in SLC will be used to determine the pre-project BE for the units in the SLC.

As established in District Project N-1142591 and the subsequent projects for all newly installed wine tanks, all of the wine tanks at this facility satisfy the requirements of achieved-in-practice Best Available Control Technology (BACT) for wine fermentation and storage as accepted by the District during the five years immediately prior to the submission of the complete application for the project, and are thus Clean Emission Units; therefore, the pre-project BE emissions for the units in the SLC are equal to the pre-project for the units in the SLC ($BE_{SLC} = PE1_{SLC}$).

Therefore, BE for VOC from units $BE_{SLC} = PE1_{SLC} = 1,167,178$ lb-VOC/year

7. SB 288 Major Modification

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

This project for the addition of twenty-four new wine storage tanks (ATCs N-2321-860-0 thru N-2321-883-0) is Phase 3 of a large project. Project N-1133440 for the installation of seven wine storage tanks (permit units N-2321-801 thru N-2321-807) was Phase 1 and Project N-1140986 for installation of two 652,000 gallon wine storage tanks (permit units N-2321-834 and N-2321-835) was Phase 2 of the overall project. Therefore, the potential to emit from all three Phases 1, 2, and 3 will be considered together for purposes of determining if the current project will constitute an SB 288 Major Modification.

Tanks operating at a winery are not completely independent emissions units since various processes at the facility may serve as a bottleneck to limit overall production. Therefore, the potential annual emissions must be established with consideration of all the other associated tanks in the facility. The total potential to emit from all of the proposed new tanks ($PE2_{New}$) is therefore determined as the difference between the post project and the pre project potential emissions from the wine production operation based on the collective physical capacity of the wine tanks at the facility.

The NEI is the total of emission increases for every permit unit addressed in the projects and is calculated as follows:

$$NEI = PE2 - BAE$$

Where: $PE2$ = the sum of all the $PE2$ s for each permit unit in the projects
 BAE = for units that are fully offset, the BAE = the $PE1$ for every unit,
otherwise, the BAE is the actual annual emissions averaged over
the baseline period for every unit.

Since all three Phases 1, 2, and 3 of the project involve only new emissions units, and no change to the existing emission units. The BAE for these units are each equal to zero.

Based on the collective physical capacity of the wine tanks in this facility, PE2_{NewTanks} for Phases 1, 2, and 3 of the project is calculated to be 138,396 pounds VOC per year. See winery potential emissions increase calculations in **Appendix C** of this document.

$$NEI = \sum(PE2)_{New} = 138,396 \text{ lb-VOC/yr}$$

SB 288 Major Modification Calculation and Determination					
Pollutant	PE2 (lb/yr)	BAE (lb/yr)	NEI (lb/yr)	Threshold (lb/yr)	SB 288 Major Modification?
VOC	138,396	0	138,396	50,000	Yes

As demonstrated above, this project does constitute an SB 288 Major Modification.

8. Federal Major Modification

District Rule 2201 states that a Federal Major Modification is the same as a "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.

N-2321-860-0 through -883-0: (24 New Wine Storage Tanks)

These are new emissions units, and as shown in previous section of this document, the PE2 for these new emissions units is greater than the Federal Major Modification Threshold of 0 lb-VOC/year. Therefore, this project does constitute a Federal Major Modification.

Federal Offset quantities are calculated.

Federal Offset Quantities:

The Federal offset quantity is only calculated only for the pollutants for which the project is a Federal Major Modification. The Federal offset quantity is the sum of the annual emission changes for all new and modified emission units in a project calculated as the potential to emit after the modification (PE2) minus the actual emissions (AE) during the baseline period for each emission unit times the applicable federal offset ratio.

VOC		Federal Offset Ratio	1.5
Permit No.	Actual Emissions (lb/year)	Potential Emissions (lb/year)	Emissions Change (lb/yr)
N-2321-860-0	0	623	623
N-2321-861-0	0	623	623
N-2321-862-0	0	623	623
N-2321-863-0	0	623	623
N-2321-864-0	0	623	623
N-2321-865-0	0	623	623
N-2321-866-0	0	623	623
N-2321-867-0	0	623	623
N-2321-868-0	0	623	623
N-2321-869-0	0	623	623
N-2321-870-0	0	623	623
N-2321-871-0	0	623	623
N-2321-872-0	0	623	623
N-2321-873-0	0	623	623
N-2321-874-0	0	623	623
N-2321-875-0	0	623	623
N-2321-876-0	0	623	623
N-2321-877-0	0	623	623
N-2321-878-0	0	623	623
N-2321-879-0	0	623	623
N-2321-880-0	0	623	623
N-2321-881-0	0	623	623
N-2321-882-0	0	623	623
N-2321-883-0	0	623	623
Net Emission Change (lb/year):			14,952
Federal Offset Quantity: (NEC * 1.5)			22,428

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

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

I. Project Location Relative to Class 1 Area

As demonstrated in the "PSD Major Source Determination" Section above, the facility was determined to be a existing PSD Major Source. Because the project is not located within 10 km (6.2 miles) of a Class 1 area – modeling of the emission increase is not required to determine if the project is subject to the requirements of Rule 2410.

II. Project Emission Increase – Significance Determination

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

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

PSD Significant Emission Increase Determination: Potential to Emit (tons/year)					
	NO ₂	SO ₂	CO	PM	PM ₁₀
Total PE from New and Modified Units	0	0	0	0	0
PSD Significant Emission Increase Thresholds	40	40	100	25	15
PSD Significant Emission Increase?	No	No	No	No	No

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

10. Quarterly Net Emissions Change (QNEC)

The QNEC is calculated solely to establish emissions that are used to complete the District's PAS emissions profile screen. Because the proposed wine fermentation and storage tanks will be subject to the existing SLC that limits VOC emissions from all wine fermentation and wine storage operations at the facility, there will be no overall increase in potential to emit at the facility. Therefore, the QNEC is equal to 0 for each quarter for each permit unit.

VIII. Compliance Determination

Rule 2201 New and Modified Stationary Source Review Rule

A. Best Available Control Technology (BACT)

1. BACT Applicability

BACT requirements are triggered on a pollutant-by-pollutant basis and on an emissions unit-by-emissions unit basis. Unless specifically exempted by Rule 2201, BACT shall be required for the following actions*:

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

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

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

As seen in Section VII.C.2 above, the applicant is proposing to install twenty-four new wine storage tanks. BACT is triggered for VOC since the PE from each tank is greater than 2.0 lb/day.

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

As discussed in Section I above, there are no emissions units being relocated from one stationary source to another; therefore BACT is not triggered.

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

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

d. SB 288/Federal Major Modification

As discussed in Sections VII.C.7 and VII.C.8 above, this project does constitute an SB 288 and Federal Major Modification for VOC emissions. Therefore BACT is triggered for VOC for all emissions units in the project for which there is an emission increase.

2. BACT Guideline

BACT Guideline 5.4.13, applies to the wine storage tanks (see **Appendix D**)

3. Top-Down BACT Analysis

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

Pursuant to the attached Top-Down BACT Analysis (see **Appendix E**), BACT has been satisfied with the following:

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

B. Offsets

1. Offset Applicability

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.

As discussed above, this facility is an existing major source for VOC, and the pre-project and post project potential emissions are each greater than the offset thresholds for VOC. Therefore offset calculations will be required for this project.

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

Offsets Required (lb/year) = $(\Sigma[PE2 - BE] + ICCE) \times DOR$, for all new or modified emissions units in the project,

Where,

PE2 = Post Project Potential to Emit, (lb/year)

BE = Baseline Emissions, (lb/year)

ICCE = Increase in Cargo Carrier Emissions, (lb/year)

DOR = Distance Offset Ratio, determined pursuant to Section 4.8

BE = PE1 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,
 $BE = HAE$

There are no increases in Cargo Carrier emissions as result of this project. This proposed project constitutes a Federal Major Modification, which requires DOR of 1.5 pursuant to section 4.8.1 of this Rule. Thus,

$$\text{Offset Required} = \Sigma [(PE2 - BE) + 0] \times 1.5$$

The facility has an existing SLC of 1,167,178 pounds of VOC per year for wine fermentation and storage operations, and the applicant is not proposing any change to this limit as a result of this project.

Pursuant to District Policy APR 1420, *NSR Calculations for Units with Specific Limiting Conditions* (3/12/07), the quantity of ERCs for units included in an SLC shall be determined by comparing the post-project PE for the SLC to the pre-project BE for the SLC.

As discussed in Section VII.C.6 of this document, BE for the SLC (BE_{SLC}) = $PE1_{SLC}$ = 1,167,178 lb-VOC/yr. Therefore, the emissions increase to be offset for this project is calculated as follows:

$$\begin{aligned} \text{Emissions Increase (lb/year)} &= [PE2_{SLC} - PE1_{SLC}] \times 1.5 \\ &= [(1,167,178 - 1,167,178) \times 1.5] \text{ lb-VOC/year} \\ &= 0 \text{ lb-VOC/year} \end{aligned}$$

As demonstrated in the calculation above, the amount of offsets is zero. Therefore, offsets will not be required for this project.

C. Public Notification

1. Applicability

Public noticing is required for:

- a. New Major Sources, Federal Major Modifications, and SB 288 Major Modifications,
- b. Any new emissions unit with a Potential to Emit greater than 100 pounds during any one day for any one pollutant,
- c. Any project which results in the offset thresholds being surpassed,
- d. Any project with an SSIPE of greater than 20,000 lb/year for any pollutant, and/or
- e. Any project which results in a Title V significant permit modification

a. New Major Sources, Federal Major Modifications, and SB 288 Major Modifications

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

As demonstrated in Sections VII.C.7 and VII.C.8 of this document, this project is an SB 288 and Federal Major Modification. Therefore, public noticing for SB 288 and Federal Major Modification purposes is required.

b. PE > 100 lb/day

The PE2 for each of the new wine storage tanks is compared to the daily PE Public Notice thresholds in the following table:

PE > 100 lb/day Public Notice Thresholds			
Pollutant	PE2 (lb/day)	Public Notice Threshold	Public Notice Triggered?
NO _x	0	100 lb/day	No
SO _x	0	100 lb/day	No
PM ₁₀	0	100 lb/day	No
CO	0	100 lb/day	No
VOC	112.8	100 lb/day	Yes

Therefore, public noticing for PE > 100 lb/day purposes is required.

c. Offset Threshold

The SSPE1 and SSPE2 are compared to the offset thresholds in the following table.

Offset Thresholds				
Pollutant	SSPE1 (lb/year)	SSPE2 (lb/year)	Offset Threshold	Public Notice Required?
VOC	1,167,178	1,167,178	20,000 lb/year	No

As shown in above table, the SSPE1 was already greater than the VOC offset threshold. Therefore, public noticing is not required for offset purpose.

d. SSIPE > 20,000 lb/year

Public notification is required for any permitting action that results in a SSIPE of more than 20,000 lb/year of any affected pollutant. According to District policy, the SSIPE = SSPE2 – SSPE1.

As discussed above, the proposed new tanks will installed under the existing SLC for VOC emissions, so there will be no overall increase in VOC emissions as a result of this project. The SSIPE is compared to the SSIPE Public Notice thresholds in the following table.

SSIPE Public Notice Thresholds					
Pollutant	SSPE2 (lb/year)	SSPE1 (lb/year)	SSIPE (lb/year)	SSIPE Public Notice Threshold	Public Notice Required?
VOC	1,167,178	1,167,178	0	20,000 lb/year	No

As demonstrated above, the SSIPE for VOC, the only pollutant associated with this project was less than 20,000 lb/year; therefore public noticing for SSIPE purposes is not required.

e. Title V Significant Permit Modification

Since the proposed project triggers a Federal Major Modification, this project constitutes a Title V significant modification. Therefore, public noticing for Title V significant modifications is required for this project.

2. Public Notice Action

As discussed above, public noticing is required for this project for triggering in VOC emissions in excess of 100 lb/day for each new emission unit, and a Title V Significant Permit Modification. Therefore, public notice documents will be submitted to the California Air Resources Board (CARB) and a public notice will be published in a local newspaper of general circulation prior to the issuance of the ATCs for the equipment.

D. Daily Emission Limits (DELs)

DELs and other enforceable conditions are required by Rule 2201 to restrict a unit's maximum daily emissions, to a level at or below the emissions associated with the maximum design capacity. The DEL must be contained in the latest ATC and contained in or enforced by the latest PTO and enforceable, in a practicable manner, on a daily basis. DELs are also required to enforce the applicability of BACT.

Proposed Rule 2201 (DEL) Conditions:

N-2321-860-0 through -883-0: (24 New Wine Storage Tanks)

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

- This tank shall be used exclusively for wine storage operations only and not for fermentation. [District Rule 2201]
- This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694]

- The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694]
- The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rules 2201 and 4694]
- The ethanol content of wine stored in this tank shall not exceed 17.0 percent by volume. [District Rule 2201]
- The daily throughput, in gallons, of wine stored in this tank shall not exceed 432,000 gallons per day (equivalent to four times the maximum nominal tank capacity stated in the equipment description). [District Rule 2201]

In addition, in order for the applicant to be able to ensure ongoing compliance with the proposed annual VOC limit for all tanks in this project, the following conditions will be included on each permit:

- The maximum annual wine throughput in this tank, calculated on a twelve (12) month rolling basis, shall not exceed 5,400,000 gallons per year (equivalent to fifty times the maximum nominal tank capacity stated in the equipment description). [District Rule 2201]
- Total annual VOC emissions from all wine fermentation and wine storage operations at this facility shall not exceed 1,167,178 lb/year, calculated on a twelve (12) month rolling basis. [District Rule 2201]

E. Compliance Assurance

1. Source Testing

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

2. Monitoring

No monitoring is required to demonstrate compliance with Rule 2201.

3. Recordkeeping

Recordkeeping is required to demonstrate compliance with the offset, public notification and daily emission limit requirements of Rule 2201. The following conditions are listed on the permit to operate:

- Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201]
- The operator shall maintain records of the calculated 12 month rolling wine ethanol content and storage throughput rate (ethanol percentage by volume and gallons per 12 month rolling period, calculated monthly). [District Rule 2201]
- Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201]
- Records of total annual fermentation and total annual storage emissions, including calculation methods and parameters used, shall be maintained. [District Rule 2201]

The applicant will also be required to keep records of wine storage operation that are required by the Rule 4694.

- The operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694]
- All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201 and 4694]

4. Reporting

No reporting is required to demonstrate compliance with Rule 2201.

F. Ambient Air Quality Analysis (AAQA)

An AAQA shall be conducted for the purpose of determining whether a new or modified Stationary Source will cause or make worse a violation of an air quality standard. However, this project involves only VOCs (mainly ethanol) for which AAQS does not exist; therefore, AAQA is not performed for this project.

G. Compliance Certification

Section 4.15.2 of this Rule requires the owner of a new Major Source or a source undergoing a Federal Major Modification to demonstrate to the satisfaction of the District that all other Major Sources owned by such person and operating in California are in

compliance or are on a schedule for compliance with all applicable emission limitations and standards. As discussed in Section VIII above, the proposed project constitutes a Federal Major Modification, therefore this requirement is applicable. CBUS Ops Inc.'s compliance certification is included in Appendix F of this document.

H. Alternate Siting Analysis

The current project occurs at an existing facility. The applicant proposes to install additional twenty-four wine storage tanks at the existing winery with more than 700 existing wine processing tanks.

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

Rule 2410 Prevention of Significant Deterioration

As shown in Section VII.C.9 above, this project does not result in a new PSD major source or PSD major modification. No further discussion is required.

Rule 2520 Federally Mandated Operating Permits

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

A minor permit modification is a permit modification that does not meet the definition of modification as given in Section 111 or Section 112 of the Federal Clean Air Act.

The proposed project constitutes a Significant Modification to the Title V Permit, as the project triggered a Federal Major Modification under the Federal Clean Air Act. The facility has applied for a Certificate of Conformity (COC), and therefore, the following conditions will be listed on the permit:

- {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District NSR Rule]
- {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4]

Prior to operating with the proposed modifications, the facility must apply to modify their Title V permit with an administrative amendment. The facility shall not implement the changes

requested until the final permit is issued; and therefore, continued compliance with this rule is expected.

Rule 4001 New Source Performance Standards (NSPS)

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

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

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

Rule 4102 Nuisance

Rule 4102 prohibits discharge of air contaminants which could cause injury, detriment, nuisance or annoyance to the public. Public nuisance conditions are not expected as a result of these operations, provided the equipment is well maintained.

California Health & Safety Code 41700 (Health Risk Assessment)

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

Ethanol is the only pollutant that will be emitted by the proposed wine tanks. 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 and a health risk assessment is not necessary. No further risk analysis is required.

Therefore, compliance with the requirements of this rule is expected and the following condition will be listed on the permit:

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

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.

Section 4.1.4 states that this rule shall not apply to tanks used in wine fermentation and to stores fermentation products, byproducts, and spirits.

The tanks in this project are used solely for the storage of wine. Therefore, the requirements of this rule are not applicable to any of the winery tanks within this project.

Rule 4694 Wine Fermentation and Storage Tanks

The purpose of this rule is to reduce emissions of volatile organic compounds (VOC) from the fermentation and bulk storage of wine, or achieve equivalent reductions from alternative emission sources. This rule is applicable to all facilities with fermentation emissions in excess of 10 tons of VOC per year.

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

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

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

The following conditions will be listed on the permit for each proposed stainless steel storage tank with capacity greater than and equal to 5,000 gallons to ensure compliance with the requirements of this section:

- This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694]
- The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21 [District Rules 2201 and 4694]

Section 5.2.2 requires that the temperature of the stored wine be maintained at or below 75°F.

The following conditions will be listed on the permit for each proposed stainless steel storage tank with capacity greater than and equal to 5,000 gallons to ensure compliance with the requirements of this section:

- The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rules 2201 and 4694]

Every three years, Section 6.1 and 6.2 require the facility to submit a Three-Year Compliance Plan and a Three-Year Compliance Plan Verification respectively. Section 6.3 requires that an Annual Compliance Plan Demonstration be submitted to the District no later than February 1 of each year to show compliance with the applicable requirements of the Rule.

The facility has submitted the required plans to the District and is currently satisfying these requirements. Since, the proposed tanks in this project are for wine storage only, and these sections are not applicable to wine storage operations, no further discussion is required.

Section 6.4 requires that records required by this rule be maintained, retained on-site for a minimum of five years, and made available to the APCO upon request. The following condition will be listed on the permit to ensure on-going compliance with this section:

- All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rule 2201 and 4694]

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

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

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

Section 6.4.3 requires that all monitoring be performed for any Certified Emission Reductions as identified in the facility's Three-Year Compliance Plan and that the records of all monitoring be maintained.

Since this requirement is for operators mitigation fermentation emission and the proposed tanks are only for wine storage operations, this section is not applicable to wine tanks in this project. Therefore, no further discussion is required.

Compliance with the requirements of this Rule is expected.

Rule 4695 Brandy Aging and Wine aging Operations

The purpose of this rule is to limit volatile organic compound (VOC) emissions from brandy aging and wine aging operations.

Section 4.2 states that this rule shall not apply to wine storage tanks subject to Rule 4694 (Wine Fermentation and Storage Tanks) Section 5.2.

As stated above, the proposed wine storage tanks are subject to Rule 4694, Section 5.2., and therefore, these tanks are exempt from the requirements of this rule.

California Health & Safety Code 42301.6 (School Notice)

The District has verified that this site is not located within 1,000 feet of a school. In addition, the proposed project will not result in an increase in Toxic Air Contaminants. Therefore, pursuant to California Health and Safety Code 42301.6, a school notice is not required.

California Environmental Quality Act (CEQA)

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

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

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

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

The District has considered the Lead Agency's environmental document and finds that it adequately characterizes the project's potential impact on air quality. In addition, all feasible and cost-effective control measures to reduce potential impacts on air quality resulting from project related stationary source emissions have been applied to the project as part of BACT. Furthermore, the District has conducted an engineering evaluation of the project, this document, which demonstrates that Stationary Source emissions from the project would be reduced. Thus, the District finds that through a combination of project design elements, compliance with applicable District rules and regulations, and compliance with District air permit conditions, project specific stationary source emissions would be reduced to lessen the impacts on air quality. The District does not have authority over any of the other project impacts and has, therefore, determined that no additional findings are required (CEQA Guidelines §15096(h)).

Indemnification Agreement/Letter of Credit Determination

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

The criteria pollutant emissions and toxic air contaminant emissions associated with the proposed project are not significant, and there is minimal potential for public concern for these wine storage tanks. Therefore, an Indemnification Agreement and/or a Letter of Credit will not be required for this project in the absence of expressed public concern.

IX. Recommendation

Compliance with all applicable rules and regulations is expected. Pending a successful NSR Public Noticing period, issue ATC N-2321-860-0 through N-2321-883-0 subject to the permit conditions on the attached draft ATCs in **Appendix A**.

X. Billing Information

Annual Permit Fees			
Permit Number	Fee Schedule	Fee Description	Annual Fee
N-2321-860-0 through N-2321-883-0 (each)	3020-05-E	108,000 gal tank	\$270.00

Appendixes

- A: Draft ATCs
- B: EPA's Tanks 4.0.9d Reports
- C: Winery Potential Emissions Increase Calculations
- D: BACT Guideline
- E: BACT Analysis
- F: Compliance Certification
- G: Quarterly Net Emissions Change

APPENDIX A

Draft ATCs

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: N-2321-860-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: CBUS OPS INC (DBA WOODBRIDGE WINERY)
MAILING ADDRESS: PO BOX 1260

WOODBRIDGE, CA 95258-1260

LOCATION: 5950 E WOODBRIDGE ROAD
ACAMPO, CA 95220

EQUIPMENT DESCRIPTION:

108,000 GALLON NOMINAL STAINLESS STEEL ENCLOSED TOP WINE STORAGE TANK (TANK #1675) WITH PRESSURE/VACUUM VALVE AND INSULATION

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. The nominal tank dimensions are 21.25 feet in diameter and 41 feet in height with a proposed volume of 108,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
5. This tank shall be used exclusively for wine storage operations only and not for fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services

N-2321-860-0 - Mar 27 2017 1:32 PM - 800N : Joint Inspection NOT Required

7. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
8. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
9. The ethanol content of wine stored in this tank shall not exceed 17.0 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The daily tank throughput, in gallons, shall not exceed 432,000 gallons per day (equivalent to four times the maximum nominal tank capacity stated in the equipment description). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The maximum annual wine throughput in this tank, calculated on a twelve (12) month rolling basis, shall not exceed 5,400,000 gallons per year (equivalent to fifty times the maximum nominal tank capacity stated in the equipment description). [District Rule 2201] Federally Enforceable Through Title V Permit
12. Total annual VOC emissions from all wine fermentation and wine storage operations at this facility shall not exceed 1,167,178 lb/year, calculated on a twelve (12) month rolling basis. [District Rule 2201] Federally Enforceable Through Title V Permit
13. If the throughput or ethanol content calculated for any rolling 12-month period exceeds the annual throughput or ethanol content limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput or ethanol content limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput and ethanol content are below the annual throughput and ethanol content limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Total annual VOC emissions from wine storage operations may be determined using the total annual wine throughput and a single storage emissions factor, calculated using the equation(s) specified within this permit, based on the average ethanol content of the annual wine throughput; or using the throughputs for different batches of wine and batch-specific storage emissions factors, calculated using the equation(s) specified within this permit, based on the ethanol content of each batch. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The annual VOC wine storage emission factor for each wine ethanol content shall be calculated using the following equation: $EF = a * P^2 + b * P + c$; where EF is the VOC emission factor in pounds of VOC per 1,000 gallons of wine throughput; and P is the volume percent ethanol of the wine being transferred. For concentrations up to and including 24 volume % (when the ethanol content of wine is 20 volume %, P is equivalent to 0.20), $a = -0.38194$, $b = 0.97917$ and $c = 0$. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit
17. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
18. The operator shall maintain records of the calculated 12 month rolling wine ethanol content and storage throughput rate (ethanol percentage by volume and gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
19. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Records of total annual fermentation and total annual storage emissions, including calculation methods and parameters used, shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

21. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

DRAFT

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: N-2321-861-0

LEGAL OWNER OR OPERATOR: CBUS OPS INC (DBA WOODBRIDGE WINERY)

MAILING ADDRESS: PO BOX 1260
WOODBRIDGE, CA 95258-1260

LOCATION: 5950 E WOODBRIDGE ROAD
ACAMPO, CA 95220

EQUIPMENT DESCRIPTION:

108,000 GALLON NOMINAL STAINLESS STEEL ENCLOSED TOP WINE STORAGE TANK (TANK #1676) WITH PRESSURE/VACUUM VALVE AND INSULATION

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. The nominal tank dimensions are 21.25 feet in diameter and 41 feet in height with a proposed volume of 108,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
5. This tank shall be used exclusively for wine storage operations only and not for fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services

10-2321-861-0 Mar 22 2017 10:16AM - SCW : Joint Inspection NOT Required

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7. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
8. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
9. The ethanol content of wine stored in this tank shall not exceed 17.0 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The daily tank throughput, in gallons, shall not exceed 432,000 gallons per day (equivalent to four times the maximum nominal tank capacity stated in the equipment description). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The maximum annual wine throughput in this tank, calculated on a twelve (12) month rolling basis, shall not exceed 5,400,000 gallons per year (equivalent to fifty times the maximum nominal tank capacity stated in the equipment description). [District Rule 2201] Federally Enforceable Through Title V Permit
12. Total annual VOC emissions from all wine fermentation and wine storage operations at this facility shall not exceed 1,167,178 lb/year, calculated on a twelve (12) month rolling basis. [District Rule 2201] Federally Enforceable Through Title V Permit
13. If the throughput or ethanol content calculated for any rolling 12-month period exceeds the annual throughput or ethanol content limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput or ethanol content limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput and ethanol content are below the annual throughput and ethanol content limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Total annual VOC emissions from wine storage operations may be determined using the total annual wine throughput and a single storage emissions factor, calculated using the equation(s) specified within this permit, based on the average ethanol content of the annual wine throughput; or using the throughputs for different batches of wine and batch-specific storage emissions factors, calculated using the equation(s) specified within this permit, based on the ethanol content of each batch. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The annual VOC wine storage emission factor for each wine ethanol content shall be calculated using the following equation: $EF = a * P^2 + b * P + c$; where EF is the VOC emission factor in pounds of VOC per 1,000 gallons of wine throughput; and P is the volume percent ethanol of the wine being transferred. For concentrations up to and including 24 volume % (when the ethanol content of wine is 20 volume %, P is equivalent to 0.20), $a = -0.38194$, $b = 0.97917$ and $c = 0$. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit
17. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
18. The operator shall maintain records of the calculated 12 month rolling wine ethanol content and storage throughput rate (ethanol percentage by volume and gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
19. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Records of total annual fermentation and total annual storage emissions, including calculation methods and parameters used, shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

21. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

DRAFT

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: N-2321-862-0

LEGAL OWNER OR OPERATOR: CBUS OPS INC (DBA WOODBRIDGE WINERY)
MAILING ADDRESS: PO BOX 1260

WOODBRIDGE, CA 95258-1260

LOCATION: 5950 E WOODBRIDGE ROAD
ACAMPO, CA 95220

EQUIPMENT DESCRIPTION:

108,000 GALLON NOMINAL STAINLESS STEEL ENCLOSED TOP WINE STORAGE TANK (TANK #1677) WITH
PRESSURE/VACUUM VALVE AND INSULATION

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. The nominal tank dimensions are 21.25 feet in diameter and 41 feet in height with a proposed volume of 108,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
5. This tank shall be used exclusively for wine storage operations only and not for fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director / APCO

Arnaud Marjolle, Director of Permit Services

N-2321-89340 Mar 22 2017 10:16AM - SDNV Joint Inspection NOT Required

Northern Regional Office • 4800 Enterprise Way • Modesto, CA 95356-8718 • (209) 557-6400 • Fax (209) 557-6475

7. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
8. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
9. The ethanol content of wine stored in this tank shall not exceed 17.0 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The daily tank throughput, in gallons, shall not exceed 432,000 gallons per day (equivalent to four times the maximum nominal tank capacity stated in the equipment description). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The maximum annual wine throughput in this tank, calculated on a twelve (12) month rolling basis, shall not exceed 5,400,000 gallons per year (equivalent to fifty times the maximum nominal tank capacity stated in the equipment description). [District Rule 2201] Federally Enforceable Through Title V Permit
12. Total annual VOC emissions from all wine fermentation and wine storage operations at this facility shall not exceed 1,167,178 lb/year, calculated on a twelve (12) month rolling basis. [District Rule 2201] Federally Enforceable Through Title V Permit
13. If the throughput or ethanol content calculated for any rolling 12-month period exceeds the annual throughput or ethanol content limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput or ethanol content limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput and ethanol content are below the annual throughput and ethanol content limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Total annual VOC emissions from wine storage operations may be determined using the total annual wine throughput and a single storage emissions factor, calculated using the equation(s) specified within this permit, based on the average ethanol content of the annual wine throughput; or using the throughputs for different batches of wine and batch-specific storage emissions factors, calculated using the equation(s) specified within this permit, based on the ethanol content of each batch. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The annual VOC wine storage emission factor for each wine ethanol content shall be calculated using the following equation: $EF = a * P^2 + b * P + c$; where EF is the VOC emission factor in pounds of VOC per 1,000 gallons of wine throughput; and P is the volume percent ethanol of the wine being transferred. For concentrations up to and including 24 volume % (when the ethanol content of wine is 20 volume %, P is equivalent to 0.20), $a = -0.38194$, $b = 0.97917$ and $c = 0$. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit
17. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
18. The operator shall maintain records of the calculated 12 month rolling wine ethanol content and storage throughput rate (ethanol percentage by volume and gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
19. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Records of total annual fermentation and total annual storage emissions, including calculation methods and parameters used, shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

21. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: N-2321-863-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: CBUS OPS INC (DBA WOODBRIDGE WINERY)

MAILING ADDRESS: PO BOX 1260
WOODBRIDGE, CA 95258-1260

LOCATION: 5950 E WOODBRIDGE ROAD
ACAMPO, CA 95220

EQUIPMENT DESCRIPTION:

108,000 GALLON NOMINAL STAINLESS STEEL ENCLOSED TOP WINE STORAGE TANK (TANK #1678) WITH PRESSURE/VACUUM VALVE AND INSULATION

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. The nominal tank dimensions are 21.25 feet in diameter and 41 feet in height with a proposed volume of 108,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
5. This tank shall be used exclusively for wine storage operations only and not for fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director / APCO

Arnaud Marjolle, Director of Permit Services

N-2321-863-0 • Mar 22 2017 10:16AM • SCW Joint Inspection NOT Required

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7. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
8. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
9. The ethanol content of wine stored in this tank shall not exceed 17.0 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The daily tank throughput, in gallons, shall not exceed 432,000 gallons per day (equivalent to four times the maximum nominal tank capacity stated in the equipment description). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The maximum annual wine throughput in this tank, calculated on a twelve (12) month rolling basis, shall not exceed 5,400,000 gallons per year (equivalent to fifty times the maximum nominal tank capacity stated in the equipment description). [District Rule 2201] Federally Enforceable Through Title V Permit
12. Total annual VOC emissions from all wine fermentation and wine storage operations at this facility shall not exceed 1,167,178 lb/year, calculated on a twelve (12) month rolling basis. [District Rule 2201] Federally Enforceable Through Title V Permit
13. If the throughput or ethanol content calculated for any rolling 12-month period exceeds the annual throughput or ethanol content limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput or ethanol content limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput and ethanol content are below the annual throughput and ethanol content limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Total annual VOC emissions from wine storage operations may be determined using the total annual wine throughput and a single storage emissions factor, calculated using the equation(s) specified within this permit, based on the average ethanol content of the annual wine throughput; or using the throughputs for different batches of wine and batch-specific storage emissions factors, calculated using the equation(s) specified within this permit, based on the ethanol content of each batch. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The annual VOC wine storage emission factor for each wine ethanol content shall be calculated using the following equation: $EF = a * P^2 + b * P + c$; where EF is the VOC emission factor in pounds of VOC per 1,000 gallons of wine throughput; and P is the volume percent ethanol of the wine being transferred. For concentrations up to and including 24 volume % (when the ethanol content of wine is 20 volume %, P is equivalent to 0.20), $a = -0.38194$, $b = 0.97917$ and $c = 0$. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit
17. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
18. The operator shall maintain records of the calculated 12 month rolling wine ethanol content and storage throughput rate (ethanol percentage by volume and gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
19. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Records of total annual fermentation and total annual storage emissions, including calculation methods and parameters used, shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

21. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: N-2321-864-0

LEGAL OWNER OR OPERATOR: CBUS OPS INC (DBA WOODBRIDGE WINERY)

MAILING ADDRESS: PO BOX 1260
WOODBRIDGE, CA 95258-1260

LOCATION: 5950 E WOODBRIDGE ROAD
ACAMPO, CA 95220

EQUIPMENT DESCRIPTION:

108,000 GALLON NOMINAL STAINLESS STEEL ENCLOSED TOP WINE STORAGE TANK (TANK #1679) WITH PRESSURE/VACUUM VALVE AND INSULATION

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. The nominal tank dimensions are 21.25 feet in diameter and 41 feet in height with a proposed volume of 108,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
5. This tank shall be used exclusively for wine storage operations only and not for fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director / APCO

Amaud Marjolle, Director of Permit Services

N-2321-864-0; Mar 22 2017 10:10 AM - 602V Joint Inspection NOT Required

Northern Regional Office • 4800 Enterprise Way • Modesto, CA 95356-8718 • (209) 557-6400 • Fax (209) 557-6475

7. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
8. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
9. The ethanol content of wine stored in this tank shall not exceed 17.0 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The daily tank throughput, in gallons, shall not exceed 432,000 gallons per day (equivalent to four times the maximum nominal tank capacity stated in the equipment description). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The maximum annual wine throughput in this tank, calculated on a twelve (12) month rolling basis, shall not exceed 5,400,000 gallons per year (equivalent to fifty times the maximum nominal tank capacity stated in the equipment description). [District Rule 2201] Federally Enforceable Through Title V Permit
12. Total annual VOC emissions from all wine fermentation and wine storage operations at this facility shall not exceed 1,167,178 lb/year, calculated on a twelve (12) month rolling basis. [District Rule 2201] Federally Enforceable Through Title V Permit
13. If the throughput or ethanol content calculated for any rolling 12-month period exceeds the annual throughput or ethanol content limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput or ethanol content limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput and ethanol content are below the annual throughput and ethanol content limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Total annual VOC emissions from wine storage operations may be determined using the total annual wine throughput and a single storage emissions factor, calculated using the equation(s) specified within this permit, based on the average ethanol content of the annual wine throughput; or using the throughputs for different batches of wine and batch-specific storage emissions factors, calculated using the equation(s) specified within this permit, based on the ethanol content of each batch. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The annual VOC wine storage emission factor for each wine ethanol content shall be calculated using the following equation: $EF = a * P^2 + b * P + c$; where EF is the VOC emission factor in pounds of VOC per 1,000 gallons of wine throughput; and P is the volume percent ethanol of the wine being transferred. For concentrations up to and including 24 volume % (when the ethanol content of wine is 20 volume %, P is equivalent to 0.20), $a = -0.38194$, $b = 0.97917$ and $c = 0$. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit
17. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
18. The operator shall maintain records of the calculated 12 month rolling wine ethanol content and storage throughput rate (ethanol percentage by volume and gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
19. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Records of total annual fermentation and total annual storage emissions, including calculation methods and parameters used, shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

21. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

DRAFT

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: N-2321-865-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: CBUS OPS INC (DBA WOODBRIDGE WINERY)
MAILING ADDRESS: PO BOX 1260
WOODBRIDGE, CA 95258-1260

LOCATION: 5950 E WOODBRIDGE ROAD
ACAMPO, CA 95220

EQUIPMENT DESCRIPTION:

108,000 GALLON NOMINAL STAINLESS STEEL ENCLOSED TOP WINE STORAGE TANK (TANK #1680) WITH
PRESSURE/VACUUM VALVE AND INSULATION

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. The nominal tank dimensions are 21.25 feet in diameter and 41 feet in height with a proposed volume of 108,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
5. This tank shall be used exclusively for wine storage operations only and not for fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services

N-2321-865-0 : Mar 22 2017 10:16AM - SDW Joint Inspection NOT Required

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7. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
8. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
9. The ethanol content of wine stored in this tank shall not exceed 17.0 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The daily tank throughput, in gallons, shall not exceed 432,000 gallons per day (equivalent to four times the maximum nominal tank capacity stated in the equipment description). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The maximum annual wine throughput in this tank, calculated on a twelve (12) month rolling basis, shall not exceed 5,400,000 gallons per year (equivalent to fifty times the maximum nominal tank capacity stated in the equipment description). [District Rule 2201] Federally Enforceable Through Title V Permit
12. Total annual VOC emissions from all wine fermentation and wine storage operations at this facility shall not exceed 1,167,178 lb/year, calculated on a twelve (12) month rolling basis. [District Rule 2201] Federally Enforceable Through Title V Permit
13. If the throughput or ethanol content calculated for any rolling 12-month period exceeds the annual throughput or ethanol content limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput or ethanol content limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput and ethanol content are below the annual throughput and ethanol content limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Total annual VOC emissions from wine storage operations may be determined using the total annual wine throughput and a single storage emissions factor, calculated using the equation(s) specified within this permit, based on the average ethanol content of the annual wine throughput; or using the throughputs for different batches of wine and batch-specific storage emissions factors, calculated using the equation(s) specified within this permit, based on the ethanol content of each batch. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The annual VOC wine storage emission factor for each wine ethanol content shall be calculated using the following equation: $EF = a * P^2 + b * P + c$; where EF is the VOC emission factor in pounds of VOC per 1,000 gallons of wine throughput; and P is the volume percent ethanol of the wine being transferred. For concentrations up to and including 24 volume % (when the ethanol content of wine is 20 volume %, P is equivalent to 0.20), $a = -0.38194$, $b = 0.97917$ and $c = 0$. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit
17. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
18. The operator shall maintain records of the calculated 12 month rolling wine ethanol content and storage throughput rate (ethanol percentage by volume and gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
19. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Records of total annual fermentation and total annual storage emissions, including calculation methods and parameters used, shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

21. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

DRAFT

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: N-2321-866-0

LEGAL OWNER OR OPERATOR: CBUS OPS INC (DBA WOODBRIDGE WINERY)

MAILING ADDRESS: PO BOX 1260
WOODBRIDGE, CA 95258-1260

LOCATION: 5950 E WOODBRIDGE ROAD
ACAMPO, CA 95220

EQUIPMENT DESCRIPTION:

108,000 GALLON NOMINAL STAINLESS STEEL ENCLOSED TOP WINE STORAGE TANK (TANK #1681) WITH PRESSURE/VACUUM VALVE AND INSULATION

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. The nominal tank dimensions are 21.25 feet in diameter and 41 feet in height with a proposed volume of 108,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
5. This tank shall be used exclusively for wine storage operations only and not for fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Sayed Sadredin, Executive Director / APCD

Arnaud Marjollet, Director of Permit Services

N-2321-866-0: Mar 22 2017 10:15AM - GCW - Joint Inspection NOT Required

Northern Regional Office • 4800 Enterprise Way • Modesto, CA 95356-8718 • (209) 557-6400 • Fax (209) 557-6475

7. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
8. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
9. The ethanol content of wine stored in this tank shall not exceed 17.0 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The daily tank throughput, in gallons, shall not exceed 432,000 gallons per day (equivalent to four times the maximum nominal tank capacity stated in the equipment description). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The maximum annual wine throughput in this tank, calculated on a twelve (12) month rolling basis, shall not exceed 5,400,000 gallons per year (equivalent to fifty times the maximum nominal tank capacity stated in the equipment description). [District Rule 2201] Federally Enforceable Through Title V Permit
12. Total annual VOC emissions from all wine fermentation and wine storage operations at this facility shall not exceed 1,167,178 lb/year, calculated on a twelve (12) month rolling basis. [District Rule 2201] Federally Enforceable Through Title V Permit
13. If the throughput or ethanol content calculated for any rolling 12-month period exceeds the annual throughput or ethanol content limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput or ethanol content limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput and ethanol content are below the annual throughput and ethanol content limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Total annual VOC emissions from wine storage operations may be determined using the total annual wine throughput and a single storage emissions factor, calculated using the equation(s) specified within this permit, based on the average ethanol content of the annual wine throughput; or using the throughputs for different batches of wine and batch-specific storage emissions factors, calculated using the equation(s) specified within this permit, based on the ethanol content of each batch. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The annual VOC wine storage emission factor for each wine ethanol content shall be calculated using the following equation: $EF = a * P^2 + b * P + c$; where EF is the VOC emission factor in pounds of VOC per 1,000 gallons of wine throughput; and P is the volume percent ethanol of the wine being transferred. For concentrations up to and including 24 volume % (when the ethanol content of wine is 20 volume %, P is equivalent to 0.20), $a = -0.38194$, $b = 0.97917$ and $c = 0$. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit
17. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
18. The operator shall maintain records of the calculated 12 month rolling wine ethanol content and storage throughput rate (ethanol percentage by volume and gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
19. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Records of total annual fermentation and total annual storage emissions, including calculation methods and parameters used, shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

21. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

DRAFT

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: N-2321-867-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: CBUS OPS INC (DBA WOODBRIDGE WINERY)

MAILING ADDRESS: PO BOX 1260
WOODBRIDGE, CA 95258-1260

LOCATION: 5950 E WOODBRIDGE ROAD
ACAMPO, CA 95220

EQUIPMENT DESCRIPTION:

108,000 GALLON NOMINAL STAINLESS STEEL ENCLOSED TOP WINE STORAGE TANK (TANK #1682) WITH PRESSURE/VACUUM VALVE AND INSULATION

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. The nominal tank dimensions are 21.25 feet in diameter and 41 feet in height with a proposed volume of 108,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
5. This tank shall be used exclusively for wine storage operations only and not for fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director / APCO

Arnaud Marjolle, Director of Permit Services

N-2321-867-0 - Mar 22 2017 10:16AM - SDW - Joint inspection NOT Required

Northern Regional Office • 4800 Enterprise Way • Modesto, CA 95356-8718 • (209) 557-6400 • Fax (209) 557-6475

7. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
8. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
9. The ethanol content of wine stored in this tank shall not exceed 17.0 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The daily tank throughput, in gallons, shall not exceed 432,000 gallons per day (equivalent to four times the maximum nominal tank capacity stated in the equipment description). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The maximum annual wine throughput in this tank, calculated on a twelve (12) month rolling basis, shall not exceed 5,400,000 gallons per year (equivalent to fifty times the maximum nominal tank capacity stated in the equipment description). [District Rule 2201] Federally Enforceable Through Title V Permit
12. Total annual VOC emissions from all wine fermentation and wine storage operations at this facility shall not exceed 1,167,178 lb/year, calculated on a twelve (12) month rolling basis. [District Rule 2201] Federally Enforceable Through Title V Permit
13. If the throughput or ethanol content calculated for any rolling 12-month period exceeds the annual throughput or ethanol content limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput or ethanol content limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput and ethanol content are below the annual throughput and ethanol content limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Total annual VOC emissions from wine storage operations may be determined using the total annual wine throughput and a single storage emissions factor, calculated using the equation(s) specified within this permit, based on the average ethanol content of the annual wine throughput; or using the throughputs for different batches of wine and batch-specific storage emissions factors, calculated using the equation(s) specified within this permit, based on the ethanol content of each batch. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The annual VOC wine storage emission factor for each wine ethanol content shall be calculated using the following equation: $EF = a * P^2 + b * P + c$; where EF is the VOC emission factor in pounds of VOC per 1,000 gallons of wine throughput; and P is the volume percent ethanol of the wine being transferred. For concentrations up to and including 24 volume % (when the ethanol content of wine is 20 volume %, P is equivalent to 0.20), $a = -0.38194$, $b = 0.97917$ and $c = 0$. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit
17. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
18. The operator shall maintain records of the calculated 12 month rolling wine ethanol content and storage throughput rate (ethanol percentage by volume and gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
19. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Records of total annual fermentation and total annual storage emissions, including calculation methods and parameters used, shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

21. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

DRAFT

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: N-2321-868-0

LEGAL OWNER OR OPERATOR: CBUS OPS INC (DBA WOODBRIDGE WINERY)
MAILING ADDRESS: PO BOX 1260

WOODBRIDGE, CA 95258-1260

LOCATION: 5950 E WOODBRIDGE ROAD
ACAMPO, CA 95220

EQUIPMENT DESCRIPTION:

108,000 GALLON NOMINAL STAINLESS STEEL ENCLOSED TOP WINE STORAGE TANK (TANK #1683) WITH
PRESSURE/VACUUM VALVE AND INSULATION

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. The nominal tank dimensions are 21.25 feet in diameter and 41 feet in height with a proposed volume of 108,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
5. This tank shall be used exclusively for wine storage operations only and not for fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Sayed Sadredin, Executive Director / APCO

Arnaud Marjolle, Director of Permit Services

N-2321-868-0 MAR 22 2017 10:16AM - SCW - Joint Inspection NOT Required

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7. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
8. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
9. The ethanol content of wine stored in this tank shall not exceed 17.0 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The daily tank throughput, in gallons, shall not exceed 432,000 gallons per day (equivalent to four times the maximum nominal tank capacity stated in the equipment description). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The maximum annual wine throughput in this tank, calculated on a twelve (12) month rolling basis, shall not exceed 5,400,000 gallons per year (equivalent to fifty times the maximum nominal tank capacity stated in the equipment description). [District Rule 2201] Federally Enforceable Through Title V Permit
12. Total annual VOC emissions from all wine fermentation and wine storage operations at this facility shall not exceed 1,167,178 lb/year, calculated on a twelve (12) month rolling basis. [District Rule 2201] Federally Enforceable Through Title V Permit
13. If the throughput or ethanol content calculated for any rolling 12-month period exceeds the annual throughput or ethanol content limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput or ethanol content limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput and ethanol content are below the annual throughput and ethanol content limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Total annual VOC emissions from wine storage operations may be determined using the total annual wine throughput and a single storage emissions factor, calculated using the equation(s) specified within this permit, based on the average ethanol content of the annual wine throughput; or using the throughputs for different batches of wine and batch-specific storage emissions factors, calculated using the equation(s) specified within this permit, based on the ethanol content of each batch. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The annual VOC wine storage emission factor for each wine ethanol content shall be calculated using the following equation: $EF = a * P^2 + b * P + c$; where EF is the VOC emission factor in pounds of VOC per 1,000 gallons of wine throughput; and P is the volume percent ethanol of the wine being transferred. For concentrations up to and including 24 volume % (when the ethanol content of wine is 20 volume %, P is equivalent to 0.20), $a = -0.38194$, $b = 0.97917$ and $c = 0$. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit
17. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
18. The operator shall maintain records of the calculated 12 month rolling wine ethanol content and storage throughput rate (ethanol percentage by volume and gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
19. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Records of total annual fermentation and total annual storage emissions, including calculation methods and parameters used, shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

21. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

DRAFT

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: N-2321-869-0

LEGAL OWNER OR OPERATOR: CBUS OPS INC (DBA WOODBRIDGE WINERY)
MAILING ADDRESS: PO BOX 1260
WOODBRIDGE, CA 95258-1260

LOCATION: 5950 E WOODBRIDGE ROAD
ACAMPO, CA 95220

EQUIPMENT DESCRIPTION:

108,000 GALLON NOMINAL STAINLESS STEEL ENCLOSED TOP WINE STORAGE TANK (TANK #1684) WITH PRESSURE/VACUUM VALVE AND INSULATION

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. The nominal tank dimensions are 21.25 feet in diameter and 41 feet in height with a proposed volume of 108,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
5. This tank shall be used exclusively for wine storage operations only and not for fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director / APCD

Arnaud Marjollet, Director of Permit Services

N-2321-869-0 Mar 22 2017 10:16AM - SGW : Joint Inspection NOT Required

Northern Regional Office • 4800 Enterprise Way • Modesto, CA 95356-8718 • (209) 557-6400 • Fax (209) 557-6475

7. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
8. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
9. The ethanol content of wine stored in this tank shall not exceed 17.0 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The daily tank throughput, in gallons, shall not exceed 432,000 gallons per day (equivalent to four times the maximum nominal tank capacity stated in the equipment description). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The maximum annual wine throughput in this tank, calculated on a twelve (12) month rolling basis, shall not exceed 5,400,000 gallons per year (equivalent to fifty times the maximum nominal tank capacity stated in the equipment description). [District Rule 2201] Federally Enforceable Through Title V Permit
12. Total annual VOC emissions from all wine fermentation and wine storage operations at this facility shall not exceed 1,167,178 lb/year, calculated on a twelve (12) month rolling basis. [District Rule 2201] Federally Enforceable Through Title V Permit
13. If the throughput or ethanol content calculated for any rolling 12-month period exceeds the annual throughput or ethanol content limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput or ethanol content limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput and ethanol content are below the annual throughput and ethanol content limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Total annual VOC emissions from wine storage operations may be determined using the total annual wine throughput and a single storage emissions factor, calculated using the equation(s) specified within this permit, based on the average ethanol content of the annual wine throughput; or using the throughputs for different batches of wine and batch-specific storage emissions factors, calculated using the equation(s) specified within this permit, based on the ethanol content of each batch. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The annual VOC wine storage emission factor for each wine ethanol content shall be calculated using the following equation: $EF = a * P^2 + b * P + c$; where EF is the VOC emission factor in pounds of VOC per 1,000 gallons of wine throughput; and P is the volume percent ethanol of the wine being transferred. For concentrations up to and including 24 volume % (when the ethanol content of wine is 20 volume %, P is equivalent to 0.20), $a = -0.38194$, $b = 0.97917$ and $c = 0$. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit
17. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
18. The operator shall maintain records of the calculated 12 month rolling wine ethanol content and storage throughput rate (ethanol percentage by volume and gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
19. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Records of total annual fermentation and total annual storage emissions, including calculation methods and parameters used, shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

21. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

DRAFT

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: N-2321-870-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: CBUS OPS INC (DBA WOODBRIDGE WINERY)

MAILING ADDRESS: PO BOX 1260
WOODBRIDGE, CA 95258-1260

LOCATION: 5950 E WOODBRIDGE ROAD
ACAMPO, CA 95220

EQUIPMENT DESCRIPTION:

108,000 GALLON NOMINAL STAINLESS STEEL ENCLOSED TOP WINE STORAGE TANK (TANK #1685) WITH PRESSURE/VACUUM VALVE AND INSULATION

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. The nominal tank dimensions are 21.25 feet in diameter and 41 feet in height with a proposed volume of 108,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
5. This tank shall be used exclusively for wine storage operations only and not for fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director / APCO

Arnaud Marjolle, Director of Permit Services

N-2321-870-0 JAN 22 2017 10:10AM - 8/2/17 Joint Inspection NOT Required

Northern Regional Office • 4800 Enterprise Way • Modesto, CA 95356-8718 • (209) 557-6400 • Fax (209) 557-6475

7. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
8. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
9. The ethanol content of wine stored in this tank shall not exceed 17.0 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The daily tank throughput, in gallons, shall not exceed 432,000 gallons per day (equivalent to four times the maximum nominal tank capacity stated in the equipment description). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The maximum annual wine throughput in this tank, calculated on a twelve (12) month rolling basis, shall not exceed 5,400,000 gallons per year (equivalent to fifty times the maximum nominal tank capacity stated in the equipment description). [District Rule 2201] Federally Enforceable Through Title V Permit
12. Total annual VOC emissions from all wine fermentation and wine storage operations at this facility shall not exceed 1,167,178 lb/year, calculated on a twelve (12) month rolling basis. [District Rule 2201] Federally Enforceable Through Title V Permit
13. If the throughput or ethanol content calculated for any rolling 12-month period exceeds the annual throughput or ethanol content limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput or ethanol content limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput and ethanol content are below the annual throughput and ethanol content limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Total annual VOC emissions from wine storage operations may be determined using the total annual wine throughput and a single storage emissions factor, calculated using the equation(s) specified within this permit, based on the average ethanol content of the annual wine throughput; or using the throughputs for different batches of wine and batch-specific storage emissions factors, calculated using the equation(s) specified within this permit, based on the ethanol content of each batch. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The annual VOC wine storage emission factor for each wine ethanol content shall be calculated using the following equation: $EF = a * P^2 + b * P + c$; where EF is the VOC emission factor in pounds of VOC per 1,000 gallons of wine throughput; and P is the volume percent ethanol of the wine being transferred. For concentrations up to and including 24 volume % (when the ethanol content of wine is 20 volume %, P is equivalent to 0.20), $a = -0.38194$, $b = 0.97917$ and $c = 0$. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit
17. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
18. The operator shall maintain records of the calculated 12 month rolling wine ethanol content and storage throughput rate (ethanol percentage by volume and gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
19. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Records of total annual fermentation and total annual storage emissions, including calculation methods and parameters used, shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

21. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

DRAFT

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: N-2321-871-0

LEGAL OWNER OR OPERATOR: CBUS OPS INC (DBA WOODBRIDGE WINERY)

MAILING ADDRESS: PO BOX 1260
WOODBRIDGE, CA 95258-1260

LOCATION: 5950 E WOODBRIDGE ROAD
ACAMPO, CA 95220

EQUIPMENT DESCRIPTION:

108,000 GALLON NOMINAL STAINLESS STEEL ENCLOSED TOP WINE STORAGE TANK (TANK #1686) WITH PRESSURE/VACUUM VALVE AND INSULATION

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. The nominal tank dimensions are 21.25 feet in diameter and 41 feet in height with a proposed volume of 108,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
5. This tank shall be used exclusively for wine storage operations only and not for fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-8400 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.

Sayed Sadredin, Executive Director / APCO

Arnaud Marjolle, Director of Permit Services

N-2321-871-0 Mar 22 2017 10:16AM - BOW - Joint Inspection NOT Required

Northern Regional Office • 4800 Enterprise Way • Modesto, CA 95356-8718 • (209) 557-6400 • Fax (209) 557-6475

7. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
8. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
9. The ethanol content of wine stored in this tank shall not exceed 17.0 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The daily tank throughput, in gallons, shall not exceed 432,000 gallons per day (equivalent to four times the maximum nominal tank capacity stated in the equipment description). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The maximum annual wine throughput in this tank, calculated on a twelve (12) month rolling basis, shall not exceed 5,400,000 gallons per year (equivalent to fifty times the maximum nominal tank capacity stated in the equipment description). [District Rule 2201] Federally Enforceable Through Title V Permit
12. Total annual VOC emissions from all wine fermentation and wine storage operations at this facility shall not exceed 1,167,178 lb/year, calculated on a twelve (12) month rolling basis. [District Rule 2201] Federally Enforceable Through Title V Permit
13. If the throughput or ethanol content calculated for any rolling 12-month period exceeds the annual throughput or ethanol content limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput or ethanol content limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput and ethanol content are below the annual throughput and ethanol content limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Total annual VOC emissions from wine storage operations may be determined using the total annual wine throughput and a single storage emissions factor, calculated using the equation(s) specified within this permit, based on the average ethanol content of the annual wine throughput; or using the throughputs for different batches of wine and batch-specific storage emissions factors, calculated using the equation(s) specified within this permit, based on the ethanol content of each batch. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The annual VOC wine storage emission factor for each wine ethanol content shall be calculated using the following equation: $EF = a * P^2 + b * P + c$; where EF is the VOC emission factor in pounds of VOC per 1,000 gallons of wine throughput; and P is the volume percent ethanol of the wine being transferred. For concentrations up to and including 24 volume % (when the ethanol content of wine is 20 volume %, P is equivalent to 0.20), $a = -0.38194$, $b = 0.97917$ and $c = 0$. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit
17. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
18. The operator shall maintain records of the calculated 12 month rolling wine ethanol content and storage throughput rate (ethanol percentage by volume and gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
19. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Records of total annual fermentation and total annual storage emissions, including calculation methods and parameters used, shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit

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CONDITIONS/CONTINUE ON NEXT PAGE

21. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

DRAFT

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: N-2321-872-0

LEGAL OWNER OR OPERATOR: CBUS OPS INC (DBA WOODBRIDGE WINERY)

MAILING ADDRESS: PO BOX 1260
WOODBRIDGE, CA 95258-1260

LOCATION: 5950 E WOODBRIDGE ROAD
ACAMPO, CA 95220

EQUIPMENT DESCRIPTION:

108,000 GALLON NOMINAL STAINLESS STEEL ENCLOSED TOP WINE STORAGE TANK (TANK #1687) WITH
PRESSURE/VACUUM VALVE AND INSULATION

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. The nominal tank dimensions are 21.25 feet in diameter and 41 feet in height with a proposed volume of 108,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
5. This tank shall be used exclusively for wine storage operations only and not for fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director, APCO

Arnaud Marjollet, Director of Permit Services

N-2321-872-0 Mar 22 2017 10:16AM - SCN - Joint Inspection NOT Required

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7. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
8. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
9. The ethanol content of wine stored in this tank shall not exceed 17.0 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The daily tank throughput, in gallons, shall not exceed 432,000 gallons per day (equivalent to four times the maximum nominal tank capacity stated in the equipment description). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The maximum annual wine throughput in this tank, calculated on a twelve (12) month rolling basis, shall not exceed 5,400,000 gallons per year (equivalent to fifty times the maximum nominal tank capacity stated in the equipment description). [District Rule 2201] Federally Enforceable Through Title V Permit
12. Total annual VOC emissions from all wine fermentation and wine storage operations at this facility shall not exceed 1,167,178 lb/year, calculated on a twelve (12) month rolling basis. [District Rule 2201] Federally Enforceable Through Title V Permit
13. If the throughput or ethanol content calculated for any rolling 12-month period exceeds the annual throughput or ethanol content limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput or ethanol content limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput and ethanol content are below the annual throughput and ethanol content limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Total annual VOC emissions from wine storage operations may be determined using the total annual wine throughput and a single storage emissions factor, calculated using the equation(s) specified within this permit, based on the average ethanol content of the annual wine throughput; or using the throughputs for different batches of wine and batch-specific storage emissions factors, calculated using the equation(s) specified within this permit, based on the ethanol content of each batch. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The annual VOC wine storage emission factor for each wine ethanol content shall be calculated using the following equation: $EF = a * P^2 + b * P + c$; where EF is the VOC emission factor in pounds of VOC per 1,000 gallons of wine throughput; and P is the volume percent ethanol of the wine being transferred. For concentrations up to and including 24 volume % (when the ethanol content of wine is 20 volume %, P is equivalent to 0.20), $a = -0.38194$, $b = 0.97917$ and $c = 0$. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit
17. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
18. The operator shall maintain records of the calculated 12 month rolling wine ethanol content and storage throughput rate (ethanol percentage by volume and gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
19. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Records of total annual fermentation and total annual storage emissions, including calculation methods and parameters used, shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

21. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

DRAFT

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: N-2321-873-0

LEGAL OWNER OR OPERATOR: CBUS OPS INC (DBA WOODBRIDGE WINERY)

MAILING ADDRESS: PO BOX 1260
WOODBIDGE, CA 95258-1260

LOCATION: 5950 E WOODBRIDGE ROAD
ACAMPO, CA 95220

EQUIPMENT DESCRIPTION:

108,000 GALLON NOMINAL STAINLESS STEEL ENCLOSED TOP WINE STORAGE TANK (TANK #1688) WITH PRESSURE/VACUUM VALVE AND INSULATION

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. The nominal tank dimensions are 21.25 feet in diameter and 41 feet in height with a proposed volume of 108,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
5. This tank shall be used exclusively for wine storage operations only and not for fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director / APCO

Arnaud Marjolle, Director of Permit Services

N-2321-873-0 Mar 22 2017 10:10AM - BCW - Joint Inspection NOT Required

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7. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
8. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
9. The ethanol content of wine stored in this tank shall not exceed 17.0 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The daily tank throughput, in gallons, shall not exceed 432,000 gallons per day (equivalent to four times the maximum nominal tank capacity stated in the equipment description). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The maximum annual wine throughput in this tank, calculated on a twelve (12) month rolling basis, shall not exceed 5,400,000 gallons per year (equivalent to fifty times the maximum nominal tank capacity stated in the equipment description). [District Rule 2201] Federally Enforceable Through Title V Permit
12. Total annual VOC emissions from all wine fermentation and wine storage operations at this facility shall not exceed 1,167,178 lb/year, calculated on a twelve (12) month rolling basis. [District Rule 2201] Federally Enforceable Through Title V Permit
13. If the throughput or ethanol content calculated for any rolling 12-month period exceeds the annual throughput or ethanol content limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput or ethanol content limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput and ethanol content are below the annual throughput and ethanol content limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Total annual VOC emissions from wine storage operations may be determined using the total annual wine throughput and a single storage emissions factor, calculated using the equation(s) specified within this permit, based on the average ethanol content of the annual wine throughput; or using the throughputs for different batches of wine and batch-specific storage emissions factors, calculated using the equation(s) specified within this permit, based on the ethanol content of each batch. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The annual VOC wine storage emission factor for each wine ethanol content shall be calculated using the following equation: $EF = a * P^2 + b * P + c$; where EF is the VOC emission factor in pounds of VOC per 1,000 gallons of wine throughput; and P is the volume percent ethanol of the wine being transferred. For concentrations up to and including 24 volume % (when the ethanol content of wine is 20 volume %, P is equivalent to 0.20), $a = -0.38194$, $b = 0.97917$ and $c = 0$. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit
17. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
18. The operator shall maintain records of the calculated 12 month rolling wine ethanol content and storage throughput rate (ethanol percentage by volume and gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
19. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Records of total annual fermentation and total annual storage emissions, including calculation methods and parameters used, shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

21. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

DRAFT

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: N-2321-874-0

LEGAL OWNER OR OPERATOR: CBUS OPS INC (DBA WOODBRIDGE WINERY)
MAILING ADDRESS: PO BOX 1260
WOODBRIDGE, CA 95258-1260

LOCATION: 5950 E WOODBRIDGE ROAD
ACAMPO, CA 95220

EQUIPMENT DESCRIPTION:

108,000 GALLON NOMINAL STAINLESS STEEL ENCLOSED TOP WINE STORAGE TANK (TANK #1689) WITH
PRESSURE/VACUUM VALVE AND INSULATION

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. The nominal tank dimensions are 21.25 feet in diameter and 41 feet in height with a proposed volume of 108,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
5. This tank shall be used exclusively for wine storage operations only and not for fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director APCO

Arnaud Marjollet, Director of Permit Services

N-2321-874-0: Mar 22 2017 10:10AM - SDW - Joint Inspection NOT Required

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7. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
8. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
9. The ethanol content of wine stored in this tank shall not exceed 17.0 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The daily tank throughput, in gallons, shall not exceed 432,000 gallons per day (equivalent to four times the maximum nominal tank capacity stated in the equipment description). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The maximum annual wine throughput in this tank, calculated on a twelve (12) month rolling basis, shall not exceed 5,400,000 gallons per year (equivalent to fifty times the maximum nominal tank capacity stated in the equipment description). [District Rule 2201] Federally Enforceable Through Title V Permit
12. Total annual VOC emissions from all wine fermentation and wine storage operations at this facility shall not exceed 1,167,178 lb/year, calculated on a twelve (12) month rolling basis. [District Rule 2201] Federally Enforceable Through Title V Permit
13. If the throughput or ethanol content calculated for any rolling 12-month period exceeds the annual throughput or ethanol content limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput or ethanol content limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput and ethanol content are below the annual throughput and ethanol content limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Total annual VOC emissions from wine storage operations may be determined using the total annual wine throughput and a single storage emissions factor, calculated using the equation(s) specified within this permit, based on the average ethanol content of the annual wine throughput; or using the throughputs for different batches of wine and batch-specific storage emissions factors, calculated using the equation(s) specified within this permit, based on the ethanol content of each batch. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The annual VOC wine storage emission factor for each wine ethanol content shall be calculated using the following equation: $EF = a * P^2 + b * P + c$; where EF is the VOC emission factor in pounds of VOC per 1,000 gallons of wine throughput; and P is the volume percent ethanol of the wine being transferred. For concentrations up to and including 24 volume % (when the ethanol content of wine is 20 volume %, P is equivalent to 0.20), $a = -0.38194$, $b = 0.97917$ and $c = 0$. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit
17. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
18. The operator shall maintain records of the calculated 12 month rolling wine ethanol content and storage throughput rate (ethanol percentage by volume and gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
19. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Records of total annual fermentation and total annual storage emissions, including calculation methods and parameters used, shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

21. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request, [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

DRAFT

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: N-2321-875-0

LEGAL OWNER OR OPERATOR: CBUS OPS INC (DBA WOODBRIDGE WINERY)

MAILING ADDRESS: PO BOX 1260
WOODBRIDGE, CA 95258-1260

LOCATION: 5950 E WOODBRIDGE ROAD
ACAMPO, CA 95220

EQUIPMENT DESCRIPTION:

108,000 GALLON NOMINAL STAINLESS STEEL ENCLOSED TOP WINE STORAGE TANK (TANK #1690) WITH PRESSURE/VACUUM VALVE AND INSULATION

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. The nominal tank dimensions are 21.25 feet in diameter and 41 feet in height with a proposed volume of 108,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
5. This tank shall be used exclusively for wine storage operations only and not for fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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Seyed Sadredin, Executive Director, APCO

Arnaud Marjollet, Director of Permit Services

N-2321-875-0 Mar 22 2017 10:16AM -- BOW : Joint Inspection NOT Required

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7. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
8. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
9. The ethanol content of wine stored in this tank shall not exceed 17.0 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The daily tank throughput, in gallons, shall not exceed 432,000 gallons per day (equivalent to four times the maximum nominal tank capacity stated in the equipment description). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The maximum annual wine throughput in this tank, calculated on a twelve (12) month rolling basis, shall not exceed 5,400,000 gallons per year (equivalent to fifty times the maximum nominal tank capacity stated in the equipment description). [District Rule 2201] Federally Enforceable Through Title V Permit
12. Total annual VOC emissions from all wine fermentation and wine storage operations at this facility shall not exceed 1,167,178 lb/year, calculated on a twelve (12) month rolling basis. [District Rule 2201] Federally Enforceable Through Title V Permit
13. If the throughput or ethanol content calculated for any rolling 12-month period exceeds the annual throughput or ethanol content limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput or ethanol content limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput and ethanol content are below the annual throughput and ethanol content limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Total annual VOC emissions from wine storage operations may be determined using the total annual wine throughput and a single storage emissions factor, calculated using the equation(s) specified within this permit, based on the average ethanol content of the annual wine throughput; or using the throughputs for different batches of wine and batch-specific storage emissions factors, calculated using the equation(s) specified within this permit, based on the ethanol content of each batch. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The annual VOC wine storage emission factor for each wine ethanol content shall be calculated using the following equation: $EF = a * P^2 + b * P + c$; where EF is the VOC emission factor in pounds of VOC per 1,000 gallons of wine throughput; and P is the volume percent ethanol of the wine being transferred. For concentrations up to and including 24 volume % (when the ethanol content of wine is 20 volume %, P is equivalent to 0.20), $a = -0.38194$, $b = 0.97917$ and $c = 0$. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit
17. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
18. The operator shall maintain records of the calculated 12 month rolling wine ethanol content and storage throughput rate (ethanol percentage by volume and gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
19. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Records of total annual fermentation and total annual storage emissions, including calculation methods and parameters used, shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

21. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: N-2321-876-0

LEGAL OWNER OR OPERATOR: CBUS OPS INC (DBA WOODBRIDGE WINERY)
MAILING ADDRESS: PO BOX 1260

WOODBRIDGE, CA 95258-1260

LOCATION: 5950 E WOODBRIDGE ROAD
ACAMPO, CA 95220

EQUIPMENT DESCRIPTION:

108,000 GALLON NOMINAL STAINLESS STEEL ENCLOSED TOP WINE STORAGE TANK (TANK #1691) WITH PRESSURE/VACUUM VALVE AND INSULATION

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. The nominal tank dimensions are 21.25 feet in diameter and 41 feet in height with a proposed volume of 108,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
5. This tank shall be used exclusively for wine storage operations only and not for fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services

N-2321-876-0 Mar 22 2017 10:16AM - 60V Joint Inspection NOT Required

Northern Regional Office • 4800 Enterprise Way • Modesto, CA 95356-8718 • (209) 557-6400 • Fax (209) 557-6475

7. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
8. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
9. The ethanol content of wine stored in this tank shall not exceed 17.0 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The daily tank throughput, in gallons, shall not exceed 432,000 gallons per day (equivalent to four times the maximum nominal tank capacity stated in the equipment description). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The maximum annual wine throughput in this tank, calculated on a twelve (12) month rolling basis, shall not exceed 5,400,000 gallons per year (equivalent to fifty times the maximum nominal tank capacity stated in the equipment description). [District Rule 2201] Federally Enforceable Through Title V Permit
12. Total annual VOC emissions from all wine fermentation and wine storage operations at this facility shall not exceed 1,167,178 lb/year, calculated on a twelve (12) month rolling basis. [District Rule 2201] Federally Enforceable Through Title V Permit
13. If the throughput or ethanol content calculated for any rolling 12-month period exceeds the annual throughput or ethanol content limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput or ethanol content limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput and ethanol content are below the annual throughput and ethanol content limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Total annual VOC emissions from wine storage operations may be determined using the total annual wine throughput and a single storage emissions factor, calculated using the equation(s) specified within this permit, based on the average ethanol content of the annual wine throughput; or using the throughputs for different batches of wine and batch-specific storage emissions factors, calculated using the equation(s) specified within this permit, based on the ethanol content of each batch. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The annual VOC wine storage emission factor for each wine ethanol content shall be calculated using the following equation: $EF = a * P^2 + b * P + c$; where EF is the VOC emission factor in pounds of VOC per 1,000 gallons of wine throughput; and P is the volume percent ethanol of the wine being transferred. For concentrations up to and including 24 volume % (when the ethanol content of wine is 20 volume %, P is equivalent to 0.20), $a = -0.38194$, $b = 0.97917$ and $c = 0$. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit
17. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
18. The operator shall maintain records of the calculated 12 month rolling wine ethanol content and storage throughput rate (ethanol percentage by volume and gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
19. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Records of total annual fermentation and total annual storage emissions, including calculation methods and parameters used, shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

21. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

DRAFT

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: N-2321-877-0

LEGAL OWNER OR OPERATOR: CBUS OPS INC (DBA WOODBRIDGE WINERY)
MAILING ADDRESS: PO BOX 1260

WOODBRIDGE, CA 95258-1260

LOCATION: 5950 E WOODBRIDGE ROAD
ACAMPO, CA 95220

EQUIPMENT DESCRIPTION:

108,000 GALLON NOMINAL STAINLESS STEEL ENCLOSED TOP WINE STORAGE TANK (TANK #1692) WITH PRESSURE/VACUUM VALVE AND INSULATION

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. The nominal tank dimensions are 21.25 feet in diameter and 41 feet in height with a proposed volume of 108,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
5. This tank shall be used exclusively for wine storage operations only and not for fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services

N-2321-877-0 Mr: 22 2017 10:10AM - BOH John Inspection NOT Required

Northern Regional Office • 4800 Enterprise Way • Modesto, CA 95356-8718 • (209) 557-6400 • Fax (209) 557-6475

7. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
8. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
9. The ethanol content of wine stored in this tank shall not exceed 17.0 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The daily tank throughput, in gallons, shall not exceed 432,000 gallons per day (equivalent to four times the maximum nominal tank capacity stated in the equipment description). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The maximum annual wine throughput in this tank, calculated on a twelve (12) month rolling basis, shall not exceed 5,400,000 gallons per year (equivalent to fifty times the maximum nominal tank capacity stated in the equipment description). [District Rule 2201] Federally Enforceable Through Title V Permit
12. Total annual VOC emissions from all wine fermentation and wine storage operations at this facility shall not exceed 1,167,178 lb/year, calculated on a twelve (12) month rolling basis. [District Rule 2201] Federally Enforceable Through Title V Permit
13. If the throughput or ethanol content calculated for any rolling 12-month period exceeds the annual throughput or ethanol content limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput or ethanol content limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput and ethanol content are below the annual throughput and ethanol content limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Total annual VOC emissions from wine storage operations may be determined using the total annual wine throughput and a single storage emissions factor, calculated using the equation(s) specified within this permit, based on the average ethanol content of the annual wine throughput; or using the throughputs for different batches of wine and batch-specific storage emissions factors, calculated using the equation(s) specified within this permit, based on the ethanol content of each batch. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The annual VOC wine storage emission factor for each wine ethanol content shall be calculated using the following equation: $EF = a * P^2 + b * P + c$; where EF is the VOC emission factor in pounds of VOC per 1,000 gallons of wine throughput; and P is the volume percent ethanol of the wine being transferred. For concentrations up to and including 24 volume % (when the ethanol content of wine is 20 volume %, P is equivalent to 0.20), $a = -0.38194$, $b = 0.97917$ and $c = 0$. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit
17. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
18. The operator shall maintain records of the calculated 12 month rolling wine ethanol content and storage throughput rate (ethanol percentage by volume and gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
19. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Records of total annual fermentation and total annual storage emissions, including calculation methods and parameters used, shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

21. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

DRAFT

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: N-2321-878-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: CBUS OPS INC (DBA WOODBRIDGE WINERY)
MAILING ADDRESS: PO BOX 1260

WOODBRIDGE, CA 95258-1260

LOCATION: 5950 E WOODBRIDGE ROAD
ACAMPO, CA 95220

EQUIPMENT DESCRIPTION:

108,000 GALLON NOMINAL STAINLESS STEEL ENCLOSED TOP WINE STORAGE TANK (TANK #1693) WITH PRESSURE/VACUUM VALVE AND INSULATION

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. The nominal tank dimensions are 21.25 feet in diameter and 41 feet in height with a proposed volume of 108,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
5. This tank shall be used exclusively for wine storage operations only and not for fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director, APCO

Arnaud Marjollet, Director of Permit Services

N-2321-878-0: Mar 22 2017 10:16AM -- SOW : Joint Inspection NOT Required

7. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
8. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
9. The ethanol content of wine stored in this tank shall not exceed 17.0 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The daily tank throughput, in gallons, shall not exceed 432,000 gallons per day (equivalent to four times the maximum nominal tank capacity stated in the equipment description). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The maximum annual wine throughput in this tank, calculated on a twelve (12) month rolling basis, shall not exceed 5,400,000 gallons per year (equivalent to fifty times the maximum nominal tank capacity stated in the equipment description). [District Rule 2201] Federally Enforceable Through Title V Permit
12. Total annual VOC emissions from all wine fermentation and wine storage operations at this facility shall not exceed 1,167,178 lb/year, calculated on a twelve (12) month rolling basis. [District Rule 2201] Federally Enforceable Through Title V Permit
13. If the throughput or ethanol content calculated for any rolling 12-month period exceeds the annual throughput or ethanol content limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput or ethanol content limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput and ethanol content are below the annual throughput and ethanol content limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Total annual VOC emissions from wine storage operations may be determined using the total annual wine throughput and a single storage emissions factor, calculated using the equation(s) specified within this permit, based on the average ethanol content of the annual wine throughput; or using the throughputs for different batches of wine and batch-specific storage emissions factors, calculated using the equation(s) specified within this permit, based on the ethanol content of each batch. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The annual VOC wine storage emission factor for each wine ethanol content shall be calculated using the following equation: $EF = a * P^2 + b * P + c$; where EF is the VOC emission factor in pounds of VOC per 1,000 gallons of wine throughput; and P is the volume percent ethanol of the wine being transferred. For concentrations up to and including 24 volume % (when the ethanol content of wine is 20 volume %, P is equivalent to 0.20), $a = -0.38194$, $b = 0.97917$ and $c = 0$. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit
17. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
18. The operator shall maintain records of the calculated 12 month rolling wine ethanol content and storage throughput rate (ethanol percentage by volume and gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
19. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Records of total annual fermentation and total annual storage emissions, including calculation methods and parameters used, shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

21. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: N-2321-879-0

LEGAL OWNER OR OPERATOR: CBUS OPS INC (DBA WOODBRIDGE WINERY)
MAILING ADDRESS: PO BOX 1260
WOODBRIDGE, CA 95258-1260

LOCATION: 5950 E WOODBRIDGE ROAD
ACAMPO, CA 95220

EQUIPMENT DESCRIPTION:

108,000 GALLON NOMINAL STAINLESS STEEL ENCLOSED TOP WINE STORAGE TANK (TANK #1694) WITH
PRESSURE/VACUUM VALVE AND INSULATION

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. The nominal tank dimensions are 21.25 feet in diameter and 41 feet in height with a proposed volume of 108,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
5. This tank shall be used exclusively for wine storage operations only and not for fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Sayed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services

N-2321-879-0 Mar 22 2017 10 16AM - SOV - Joint Inspection NOT Required

7. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
8. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
9. The ethanol content of wine stored in this tank shall not exceed 17.0 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The daily tank throughput, in gallons, shall not exceed 432,000 gallons per day (equivalent to four times the maximum nominal tank capacity stated in the equipment description). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The maximum annual wine throughput in this tank, calculated on a twelve (12) month rolling basis, shall not exceed 5,400,000 gallons per year (equivalent to fifty times the maximum nominal tank capacity stated in the equipment description). [District Rule 2201] Federally Enforceable Through Title V Permit
12. Total annual VOC emissions from all wine fermentation and wine storage operations at this facility shall not exceed 1,167,178 lb/year, calculated on a twelve (12) month rolling basis. [District Rule 2201] Federally Enforceable Through Title V Permit
13. If the throughput or ethanol content calculated for any rolling 12-month period exceeds the annual throughput or ethanol content limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput or ethanol content limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput and ethanol content are below the annual throughput and ethanol content limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Total annual VOC emissions from wine storage operations may be determined using the total annual wine throughput and a single storage emissions factor, calculated using the equation(s) specified within this permit, based on the average ethanol content of the annual wine throughput; or using the throughputs for different batches of wine and batch-specific storage emissions factors, calculated using the equation(s) specified within this permit, based on the ethanol content of each batch. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The annual VOC wine storage emission factor for each wine ethanol content shall be calculated using the following equation: $EF = a * P^2 + b * P + c$; where EF is the VOC emission factor in pounds of VOC per 1,000 gallons of wine throughput; and P is the volume percent ethanol of the wine being transferred. For concentrations up to and including 24 volume % (when the ethanol content of wine is 20 volume %, P is equivalent to 0.20), $a = -0.38194$, $b = 0.97917$ and $c = 0$. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit
17. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
18. The operator shall maintain records of the calculated 12 month rolling wine ethanol content and storage throughput rate (ethanol percentage by volume and gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
19. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Records of total annual fermentation and total annual storage emissions, including calculation methods and parameters used, shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

21. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: N-2321-880-0

LEGAL OWNER OR OPERATOR: CBUS OPS INC (DBA WOODBRIDGE WINERY)

MAILING ADDRESS: PO BOX 1260
WOODBRIDGE, CA 95258-1260

LOCATION: 5950 E WOODBRIDGE ROAD
ACAMPO, CA 95220

EQUIPMENT DESCRIPTION:

108,000 GALLON NOMINAL STAINLESS STEEL ENCLOSED TOP WINE STORAGE TANK (TANK #1695) WITH PRESSURE/VACUUM VALVE AND INSULATION

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. The nominal tank dimensions are 21.25 feet in diameter and 41 feet in height with a proposed volume of 108,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
5. This tank shall be used exclusively for wine storage operations only and not for fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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Seyed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services

N-2321-009-0 : Mar 22 2017 10:44AM -- GCW Joint Inspection NOT Required

Northern Regional Office • 4800 Enterprise Way • Modesto, CA 95356-8718 • (209) 557-6400 • Fax (209) 557-6475

7. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
8. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
9. The ethanol content of wine stored in this tank shall not exceed 17.0 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The daily tank throughput, in gallons, shall not exceed 432,000 gallons per day (equivalent to four times the maximum nominal tank capacity stated in the equipment description). [District Rule 2201] Federally Enforceable Through Title V Permit
11. The maximum annual wine throughput in this tank, calculated on a twelve (12) month rolling basis, shall not exceed 5,400,000 gallons per year (equivalent to fifty times the maximum nominal tank capacity stated in the equipment description). [District Rule 2201] Federally Enforceable Through Title V Permit
12. Total annual VOC emissions from all wine fermentation and wine storage operations at this facility shall not exceed 1,167,178 lb/year, calculated on a twelve (12) month rolling basis. [District Rule 2201] Federally Enforceable Through Title V Permit
13. If the throughput or ethanol content calculated for any rolling 12-month period exceeds the annual throughput or ethanol content limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput or ethanol content limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput and ethanol content are below the annual throughput and ethanol content limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Total annual VOC emissions from wine storage operations may be determined using the total annual wine throughput and a single storage emissions factor, calculated using the equation(s) specified within this permit, based on the average ethanol content of the annual wine throughput; or using the throughputs for different batches of wine and batch-specific storage emissions factors, calculated using the equation(s) specified within this permit, based on the ethanol content of each batch. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The annual VOC wine storage emission factor for each wine ethanol content shall be calculated using the following equation: $EF = a * P^2 + b * P + c$; where EF is the VOC emission factor in pounds of VOC per 1,000 gallons of wine throughput; and P is the volume percent ethanol of the wine being transferred. For concentrations up to and including 24 volume % (when the ethanol content of wine is 20 volume %, P is equivalent to 0.20), $a = -0.38194$, $b = 0.97917$ and $c = 0$. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit
17. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
18. The operator shall maintain records of the calculated 12 month rolling wine ethanol content and storage throughput rate (ethanol percentage by volume and gallons per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
19. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Records of total annual fermentation and total annual storage emissions, including calculation methods and parameters used, shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

21. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201, and 4694] Federally Enforceable Through Title V Permit

DRAFT

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: N-2321-881-0

LEGAL OWNER OR OPERATOR: CBUS OPS INC (DBA WOODBRIDGE WINERY)
MAILING ADDRESS: PO BOX 1260
WOODBRIDGE, CA 95258-1260

LOCATION: 5950 E WOODBRIDGE ROAD
ACAMPO, CA 95220

EQUIPMENT DESCRIPTION:

108,000 GALLON NOMINAL STAINLESS STEEL ENCLOSED TOP WINE STORAGE TANK (TANK #1696) WITH PRESSURE/VACUUM VALVE AND INSULATION

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. The nominal tank dimensions are 21.25 feet in diameter and 41 feet in height with a proposed volume of 108,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
5. This tank shall be used exclusively for wine storage operations only and not for fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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

Seyed Sadredin, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services

N-2321-881-0 - Mar 22 2017 10:16AM - SCW : Joint Inspection NOT Required

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8. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
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12. Total annual VOC emissions from all wine fermentation and wine storage operations at this facility shall not exceed 1,167,178 lb/year, calculated on a twelve (12) month rolling basis. [District Rule 2201] Federally Enforceable Through Title V Permit
13. If the throughput or ethanol content calculated for any rolling 12-month period exceeds the annual throughput or ethanol content limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput or ethanol content limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput and ethanol content are below the annual throughput and ethanol content limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
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CONDITIONS CONTINUE ON NEXT PAGE

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: N-2321-882-0

LEGAL OWNER OR OPERATOR: CBUS OPS INC (DBA WOODBRIDGE WINERY)

MAILING ADDRESS: PO BOX 1260
WOODBRIDGE, CA 95258-1260

LOCATION: 5950 E WOODBRIDGE ROAD
ACAMPO, CA 95220

EQUIPMENT DESCRIPTION:

108,000 GALLON NOMINAL STAINLESS STEEL ENCLOSED TOP WINE STORAGE TANK (TANK #1697) WITH PRESSURE/VACUUM VALVE AND INSULATION

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
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3. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. The nominal tank dimensions are 21.25 feet in diameter and 41 feet in height with a proposed volume of 108,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
5. This tank shall be used exclusively for wine storage operations only and not for fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
6. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

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Seyed Sadredin, Executive Director / APCO

Arnaud Marjolle, Director of Permit Services

N-2321-882-0; Mar 22 2017 10:16AM - SDW ; JARA Inspection NOT Required

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: N-2321-883-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: CBUS OPS INC (DBA WOODBRIDGE WINERY)

MAILING ADDRESS: PO BOX 1260
WOODBRIDGE, CA 95258-1260

LOCATION: 5950 E WOODBRIDGE ROAD
ACAMPO, CA 95220

EQUIPMENT DESCRIPTION:

108,000 GALLON NOMINAL STAINLESS STEEL ENCLOSED TOP WINE STORAGE TANK (TANK #1698) WITH PRESSURE/VACUUM VALVE AND INSULATION

CONDITIONS

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Arnaud Marjollet, Director of Permit Services

N-2321-883-0 Mar 22 2017 10:17AM - SCW - Joint Inspection NOT Required

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APPENDIX B
EPA's Tanks 4.0.9d Reports
Daily & Annual Emissions Models

TANKS 4.0

Chemical Data Report

Chemical Name Category	CAS	Molecular Weight Liquid Vapor	Density*	Vapor Pressure (psia) at Temperature (degrees F)						Constants for Antoine's Equation				REID (psia)	ASTM Slope
				40	50	60	70	80	90	100	A	B	C		
Wine 17.0 % Vol Alcohol Organic Liquids		19.67	27.81	8.17	0.17	0.25	0.37	0.53	0.74	1.03	1.42				

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

Identification

User Identification: CBUS Woodbridge N2321-860-0 to -883-0 (Daily)
City: Acampo
State: California
Company: CBUS Ops Inc. (DBA Woodbridge Winery)
Type of Tank: Vertical Fixed Roof Tank
Description: 108,000 gallon, SS & insulated tanks, installed outdoor - 17.0%

Tank Dimensions

Shell Height (ft): 41.00
Diameter (ft): 21.25
Liquid Height (ft): 40.00
Avg. Liquid Height (ft): 40.00
Volume (gallons): 108,000.00
Turnovers: 31.00
Net Throughput(gal/yr): 3,348,000.00
Is Tank Heated (y/n): Y

Paint Characteristics

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

Roof Characteristics

Type: Cone
Height (ft): 1.00
Slope (ft/ft) (Cone Roof): 0.09

Breather/Vent Settings

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

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

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

CBUS Woodbridge N2321-860-0 to -883-0 (Daily) - Vertical Fixed Roof Tank
Acampo, California

Mixture/Component	Daily Liquid Surf. Temperature (deg F)			Liquid Bulk Temp (deg F)			Vapor Pressure (psia)			Vapor Mol. Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
	Month	Avg.	Min.	Max.	Avg.	Min.	Avg.	Min.	Max.					
Wine 17.0 % Vol Alcohol	Jul	77.30	77.30	77.30	77.30	77.30	0.6816	0.6816	0.6816	27.8147			19.67	Option 1: VP70 = .52505 VP90 = .73551

TANKS 4.0.9d

Emissions Report - Detail Format

Detail Calculations (AP-42)

CBUS Woodbridge N2321-860-0 to -883-0 (Daily) - Vertical Fixed Roof Tank
Acampo, California

Month	January	February	March	April	May	June	July	August	September	October	November	December
Standing Losses (lb):							0.0000					
Vapor Space Volume (cu ft):							472.6751					
Vapor Density (lb/cu ft):							0.0033					
Vapor Space Expansion Factor:							0.9900					
Vented Vapor Saturation Factor:							0.9540					
Tank Vapor Space Volume:							472.6751					
Vapor Space Volume (cu ft):							21.2500					
Tank Diameter (ft):							1.3333					
Vapor Space Outage (ft):							41.0000					
Tank Shell Height (ft):							40.0000					
Average Liquid Height (ft):							0.3333					
Roof Outage (ft):												
Roof Outage (Cone Roof):							0.3333					
Roof Outage (ft):							1.0000					
Roof Slope (ft/ft):							0.0900					
Shell Radius (ft):							10.6250					
Vapor Density:							0.0033					
Vapor Molecular Weight (lb/lb-mole):							27.8147					
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):							0.8816					
Daily Avg. Liquid Surface Temp. (deg. R):							536.9700					
Daily Average Ambient Temp. (deg. F):							77.6500					
Ideal Gas Constant R (psia cu ft / (lb-mol-deg R)):							10.731					
Liquid Bulk Temperature (deg. R):							536.9700					
Tank Paint Solar Absorbance (Shell):							0.1700					
Tank Paint Solar Absorbance (Roof):							0.1700					
Daily Total Solar Insulation Factor (Btu/sq ft day):							2.556.0000					
Vapor Space Expansion Factor:							0.0000					
Daily Vapor Temperature Range (deg. R):							0.0000					
Daily Vapor Pressure Range (psia):							0.0000					
Breather Vent Press. Setting Range (psia):							0.0000					
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):							0.8816					
Vapor Pressure at Daily Minimum Liquid Surface Temperature (psia):							0.8816					
Vapor Pressure at Daily Maximum Liquid Surface Temperature (psia):							0.8816					
Daily Avg. Liquid Surface Temp. (deg. R):							536.9700					
Daily Min. Liquid Surface Temp. (deg. R):							536.9700					
Daily Max. Liquid Surface Temp. (deg. R):							536.9700					
Daily Ambient Temp. Range (deg. R):							33.5000					
Vented Vapor Saturation Factor:							0.9540					
Vented Vapor Saturation Factor:							0.8816					
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):							1.5333					
Vapor Space Outage (ft):												

Working Losses (lb):
 Vapor Molecular Weight (lb-lb-mole):
 Vapor Pressure at Daily Average Liquid
 Surface Temperature (psia):
 Net Throughput (gal/mo):
 Annual Turnover:
 Turnover Factor:
 Maximum Liquid Volume (gal):
 Maximum Liquid Height (ft):
 Tank Diameter (ft):
 Working Loss Product Factor:

1,511.2810
 27.6347
 0.6816
 3,348,000.0000
 31.0000
 1.0030
 106,000.0000
 40.0000
 21.2500
 1.0000
 1,511.2810

Total Losses (lb):

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

Emissions Report for: July

CBUS Woodbridge N2321-860-0 to -883-0 (Daily) - Vertical Fixed Roof Tank
Acampo, California

		Losses(lbs)	
Components	Working Loss	Breathing Loss	Total Emissions
Wine 17.0 % Vol Alcohol	1,511.28	0.00	1,511.28

TANKS 4.0.9d

Emissions Report - Detail Format

Tank Identification and Physical Characteristics

Identification

User Identification: CBUS Woodbridge N2321-860-0 to -883-0 (Annual)
City: Acampo
State: California
Company: CBUS Ops Inc. (DBA Woodbridge Winery)
Type of Tank: Vertical Fixed Roof Tank
Description: 108,000 gallon, SS & insulated tanks, installed outdoor - 17.0%

Tank Dimensions

Shell Height (ft): 41.00
Diameter (ft): 21.25
Liquid Height (ft): 40.00
Avg. Liquid Height (ft): 40.00
Volume (gallons): 108,000.00
Turnovers: 50.00
Net Throughput(gal/yr): 5,400,000.00
Is Tank Heated (y/n): Y

Paint Characteristics

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

Roof Characteristics

Type: Cone
Height (ft) 1.00
Slope (ft/ft) (Cone Roof) 0.09

Breather Vent Settings

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

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

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

CBUS Woodbridge N2321-860-0 to -883-0 (Annual) - Vertical Fixed Roof Tank
Acampo, California

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol. Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
		Avg.	Min.	Max.		Avg.	Min.	Max.					
Wine 17.0 % Vol Alcohol	Jan	61.60	61.60	61.60	61.60	0.3927	0.3927	0.3927	27.8147			19.67	Option 1: VP60 = .36745 VP70 = .52506
Wine 17.0 % Vol Alcohol	Feb	61.60	61.60	61.60	61.60	0.3927	0.3927	0.3927	27.8147			19.67	Option 1: VP60 = .36745 VP70 = .52506
Wine 17.0 % Vol Alcohol	Mar	61.60	61.60	61.60	61.60	0.3927	0.3927	0.3927	27.8147			19.67	Option 1: VP60 = .36745 VP70 = .52506
Wine 17.0 % Vol Alcohol	Apr	61.60	61.60	61.60	61.60	0.3927	0.3927	0.3927	27.8147			19.67	Option 1: VP60 = .36745 VP70 = .52506
Wine 17.0 % Vol Alcohol	May	61.60	61.60	61.60	61.60	0.3927	0.3927	0.3927	27.8147			19.67	Option 1: VP60 = .36745 VP70 = .52506
Wine 17.0 % Vol Alcohol	Jun	61.60	61.60	61.60	61.60	0.3927	0.3927	0.3927	27.8147			19.67	Option 1: VP60 = .36745 VP70 = .52506
Wine 17.0 % Vol Alcohol	Jul	61.60	61.60	61.60	61.60	0.3927	0.3927	0.3927	27.8147			19.67	Option 1: VP60 = .36745 VP70 = .52506
Wine 17.0 % Vol Alcohol	Aug	61.60	61.60	61.60	61.60	0.3927	0.3927	0.3927	27.8147			19.67	Option 1: VP60 = .36745 VP70 = .52506
Wine 17.0 % Vol Alcohol	Sep	61.60	61.60	61.60	61.60	0.3927	0.3927	0.3927	27.8147			19.67	Option 1: VP60 = .36745 VP70 = .52506
Wine 17.0 % Vol Alcohol	Oct	61.60	61.60	61.60	61.60	0.3927	0.3927	0.3927	27.8147			19.67	Option 1: VP60 = .36745 VP70 = .52506
Wine 17.0 % Vol Alcohol	Nov	61.60	61.60	61.60	61.60	0.3927	0.3927	0.3927	27.8147			19.67	Option 1: VP60 = .36745 VP70 = .52506
Wine 17.0 % Vol Alcohol	Dec	61.60	61.60	61.60	61.60	0.3927	0.3927	0.3927	27.8147			19.67	Option 1: VP60 = .36745 VP70 = .52506

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

CBUS Woodbridge N2321-860-0 to -883-0 (Annual) - Vertical Fixed Roof Tank Acampo, California

Month	January	February	March	April	May	June	July	August	September	October	November	December
Standing Losses (lb)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vapor Space Volume (cu ft)	472.8751	472.8751	472.8751	472.8751	472.8751	472.8751	472.8751	472.8751	472.8751	472.8751	472.8751	472.8751
Vapor Density (lb/cu ft)	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020
Vapor Space Expansion Factor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vented Vapor Saturation Factor	0.9730	0.9730	0.9730	0.9730	0.9730	0.9730	0.9730	0.9730	0.9730	0.9730	0.9730	0.9730
Tank Vapor Space Volume	472.8751	472.8751	472.8751	472.8751	472.8751	472.8751	472.8751	472.8751	472.8751	472.8751	472.8751	472.8751
Vapor Space Volume (cu ft)	21.2500	21.2500	21.2500	21.2500	21.2500	21.2500	21.2500	21.2500	21.2500	21.2500	21.2500	21.2500
Tank Diameter (ft)	1.3333	1.3333	1.3333	1.3333	1.3333	1.3333	1.3333	1.3333	1.3333	1.3333	1.3333	1.3333
Vapor Space Outage (ft)	41.0000	41.0000	41.0000	41.0000	41.0000	41.0000	41.0000	41.0000	41.0000	41.0000	41.0000	41.0000
Tank Shell Height (ft)	40.0000	40.0000	40.0000	40.0000	40.0000	40.0000	40.0000	40.0000	40.0000	40.0000	40.0000	40.0000
Average Liquid Height (ft)	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333
Roof Outage (ft)	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333
Roof Outage (Cone Roof)	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333	0.3333
Roof Height (ft)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Roof Slope (ft/ft)	0.0900	0.0900	0.0900	0.0900	0.0900	0.0900	0.0900	0.0900	0.0900	0.0900	0.0900	0.0900
Shell Radius (ft)	10.6250	10.6250	10.6250	10.6250	10.6250	10.6250	10.6250	10.6250	10.6250	10.6250	10.6250	10.6250
Vapor Density	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020
Vapor Molecular Weight (lb/lb-mole)	27.8147	27.8147	27.8147	27.8147	27.8147	27.8147	27.8147	27.8147	27.8147	27.8147	27.8147	27.8147
Vapor Pressure at Daily Average Liquid Surface Temperature (psia)	0.3927	0.3927	0.3927	0.3927	0.3927	0.3927	0.3927	0.3927	0.3927	0.3927	0.3927	0.3927
Daily Avg. Liquid Surface Temp. (deg. R)	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700
Daily Average Ambient Temp. (deg. F)	45.0000	50.5000	54.0500	58.9000	66.7000	73.3000	77.5500	75.8000	72.7000	64.5500	53.0500	44.9500
Ideal Gas Constant R	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731	10.731
(psia cu ft / (lb-mol-deg R))	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700
Liquid Bulk Temperature (deg. R)	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700
Tank Paint Solar Absorbance (Shell)	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700
Tank Paint Solar Absorbance (Roof)	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700	0.1700
Daily Total Solar Insolation Factor (Btu/sq ft-deg)	597.0000	699.0000	1,458.0000	2,004.0000	2,433.0000	2,584.0000	2,668.0000	2,366.0000	1,907.0000	1,315.0000	762.0000	538.0000
Vapor Space Expansion Factor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vapor Space Expansion Factor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Daily Vapor Temperature Range (deg. R)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Daily Vapor Pressure Range (psia)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Breather Vent Press. Setting Range (psia)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia)	0.3927	0.3927	0.3927	0.3927	0.3927	0.3927	0.3927	0.3927	0.3927	0.3927	0.3927	0.3927
Vapor Pressure at Daily Minimum Liquid Surface Temperature (psia)	0.3927	0.3927	0.3927	0.3927	0.3927	0.3927	0.3927	0.3927	0.3927	0.3927	0.3927	0.3927
Vapor Pressure at Daily Maximum Liquid Surface Temperature (psia)	0.3927	0.3927	0.3927	0.3927	0.3927	0.3927	0.3927	0.3927	0.3927	0.3927	0.3927	0.3927
Daily Avg. Liquid Surface Temp. (deg. R)	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700
Daily Min. Liquid Surface Temp. (deg. R)	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700
Daily Max. Liquid Surface Temp. (deg. R)	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700	521.2700
Daily Ambient Temp. Range (deg. R)	16.0000	20.4000	22.9000	27.2000	29.8000	31.6000	33.5000	32.2000	30.4000	27.5000	20.7000	15.7000
Vented Vapor Saturation Factor	0.9730	0.9730	0.9730	0.9730	0.9730	0.9730	0.9730	0.9730	0.9730	0.9730	0.9730	0.9730
Vented Vapor Saturation Factor	0.9730	0.9730	0.9730	0.9730	0.9730	0.9730	0.9730	0.9730	0.9730	0.9730	0.9730	0.9730
Vapor Pressure at Daily Average Liquid Surface Temperature (psia)	0.3927	0.3927	0.3927	0.3927	0.3927	0.3927	0.3927	0.3927	0.3927	0.3927	0.3927	0.3927
Vapor Space Outage (ft)	1.3333	1.3333	1.3333	1.3333	1.3333	1.3333	1.3333	1.3333	1.3333	1.3333	1.3333	1.3333

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

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

CBUS Woodbridge N2321-860-0 to -883-0 (Annual) - Vertical Fixed Roof Tank
Acampo, California

Components	Losses(lbs)			Total Emissions
	Working Loss	Breathing Loss		
Wine 17.0 % Vol Alcohol	1,076.59	0.00		1,076.59

APPENDIX C

Winery Potential Emissions Increase Calculations

Winery Potential Emissions Increase Calculations

The purpose of the following calculations is solely to determine if the proposed project(s) will trigger SB 288 Major Modification. The increase (or difference) in emissions are calculated below using the current emission factors for wine tanks from District FYI-114.

The facility has an existing specific limiting condition (SLC) that limits the total VOC emissions from all wine fermentation and storage operations at the facility to no more than 1,167,178 pounds of VOC per year for¹. The existing SLC will not be changed with the addition of the twenty-four new wine storage tanks proposed under this project.

As discussed in Section VII.C.7 of this document, this project for the addition of twenty-four new wine storage tanks (ATCs N-2321-860-0 thru N-2321-883-0) is Phase 3 of a larger project. Project N-1133440 for the installation of seven wine storage tanks (permit units N-2321-801 thru N-2321-807) was Phase 1, and Project N-1140986 for installation of two 652,000 gallon wine storage tanks (permit units N-2321-834 and N-2321-835) was Phase 2 of the overall project. Therefore, the potential to emit from all three Phases 1, 2, and 3 will be considered together for purposes of determining if the current project will constitute an SB 288 Major Modification.

Prior to these three phases projects, the total winery cooperage is calculated to 54,010,194 gallons, and the total volume of white wine fermenters is equal to the total volume of red wine fermenters of 52,868,604 gallons for this facility.

1. Potential to Emit PE1 – (existing tanks)

The potential annual VOC emissions from existing fermentation and storage operations at this winery are determined as follows:

White Wine Fermentation

- W1 = $C \times D_w \times M$ (limited by crusher capacity)
- W2 = $P \times D_w \times M$ (limited by pressing capacity)
- W3 = $(V_{FW} \times D_w) / W_{FW}$ (limited by white fermenter volume)
- W4 = $(V_T \times D_w) / R_{TW}$ (limited by overall tank processing)

Where,

- C = grape crushing capacity
= 13,200 tons/day (per engineering evaluation N-1092377)
- D_w = days in a white wine crush season
= 120 days
- M = amount of juice produced per ton of grapes crushed
= 200 gal/ton
- P = pressing capacity
= 8,400 tons/day (per engineering evaluation N-1092377)
- W_{FW} = white fermentation period

¹ The calculation presented in this appendix differs from the SLC due to revised emission factors in FYI-114.

$= 10$ days
 R_{TW} = total winery retention time for white wine
 $= 40 + 10$
 $= 50$ days
 V_{FW} = total volume of white wine fermenters
 $= 52,868,604$ gal
 V_T = total winery cooperage
 $= 54,010,194$ gal

Using the above parameters,

$W1 = (13,200 \times 120 \times 200) = 316.80$ Mega Gallon (MG)/year
 $W2 = (8,400 \times 120 \times 200) = 201.60$ MG/year
 $W3 = (52,868,604 \times 120) / 10 = 634.42$ MG/year
 $W4 = (54,010,194 \times 120) / 50 = 129.62$ MG/year

CBUS installed seven wine storage tanks under the Phase 1 and two wine storage tanks under the Phase 2 of the overall project, and is now requesting to install additional 24 wine storage tanks under this Phase 3 of the overall project. These tanks will result an increase facility's storage capacity, and no changes to the facility's crushing and pressing capacities. Therefore, crushing capacity and pressing capacity (W1 and W2) are not considered from the analysis. Only the fermenter volume and overall tank processing (W3 and W4) are compared.

$W_W = W4$ (lesser of W3, W4)
 $= 129.62$ MG/year

The potential white wine fermentation emissions would be:

$$PE1_{white} = E_{fw} \times W_W$$

Where:

E_{fw} = white wine emission factor
 $= 2.5$ lb-VOC/1,000 gal (per District FYI-114)

$$\begin{aligned}
 PE1_{white} &= (2.5 \text{ lb-VOC/1,000 gal}) \times (129.62 \times 10^6 \text{ gal/yr}) \\
 &= 324,050 \text{ lb-VOC/year}
 \end{aligned}$$

White Wine Storage Emissions:

Storage emissions are calculated as follows:

$$PE1_{white} = E_s \times T \times W_w$$

Where,

E_s = wine storage emission factor based on District FYI-114 (6/13/12). The existing tanks allow them to store up to 20% alcohol by volume. Thus, E_s is equal to 0.175 lb-VOC/1,000 gal.

T = total post fermentation inter-tank transfers per batch of wine
 $= 8$

$W_w = 129.62$ MG/year (determined above)

$$\begin{aligned} PE1_{\text{white}} &= (0.175 \text{ lb-VOC}/1,000 \text{ gal}) \times (8) \times (129.62 \times 10^6 \text{ gal/year}) \\ &= 181,468 \text{ lb-VOC/year} \end{aligned}$$

Total PE1 for White Wine Production:

Potential emissions from 100% white wine production scenario are then determined as follows:

$$\begin{aligned} PE1_{\text{white}} &= PE1_{\text{white fermentation}} + PE1_{\text{white storage}} \\ &= 324,050 \text{ lb-VOC/year} + 181,468 \text{ lb-VOC/year} \\ &= 505,518 \text{ lb-VOC/year} \end{aligned}$$

Red Wine Fermentation Emissions:

$$\begin{aligned} W1 &= C \times D_r \times M \text{ (limited by crusher capacity)} \\ W2 &= P \times D_r \times M \text{ (limited by pressing capacity)} \\ W3 &= (V_{FR} \times F \times D_r) / R_{FR} \text{ (limited by red fermenter volume)} \\ W4 &= (V_T \times D_r) / R_{TS} \text{ (limited by overall tank processing)} \end{aligned}$$

Where,

$$\begin{aligned} C &= \text{grape crushing capacity} \\ &= 13,200 \text{ tons/day} \\ D_r &= \text{days in a red wine crush season} \\ &= 120 \text{ days} \\ F &= \text{Fill factor for red wine fermentation} \\ &= 80\% \\ M &= \text{amount of juice produced per ton of grapes crushed} \\ &= 200 \text{ gal/ton} \\ P &= \text{pressing capacity} \\ &= 8,400 \text{ tons/day} \\ R_{FR} &= \text{red fermentation period} \\ &= 5 \text{ days} \\ R_{TS} &= \text{total winery retention time for red wine,} \\ &= 40 + 5 \\ &= 45 \text{ days} \\ V_{FR} &= \text{total volume of red wine fermenters} \\ &= 52,868,604 \text{ gal} \\ V_T &= \text{total winery cooperage} \\ &= 54,010,194 \text{ gal} \end{aligned}$$

Using the above parameters,

$$\begin{aligned} W1 &= (13,200 \times 120 \times 200) &= 316.80 \text{ MG/year} \\ W2 &= (8,400 \times 120 \times 200) &= 201.60 \text{ MG/year} \\ W3 &= (52,868,604 \times 0.8 \times 120) / 5 &= 1,015.08 \text{ MG/year} \\ W4 &= (54,010,194 \times 120) / 45 &= 144.03 \text{ MG/year} \end{aligned}$$

CBUS installed seven wine storage tanks under the Phase 1 and two wine storage tanks under the Phase 2 of the overall project, and is now requesting to install additional 24 wine storage tanks under this Phase 3 of the overall project. These tanks will result an increase facility's

storage capacity, and no changes to the facility's crushing and pressing capacities. Therefore, crushing capacity and pressing capacity (W1 and W2) are not considered from the analysis. Only the fermenter volume and overall tank processing (W3 and W4) are compared.

$$\begin{aligned}W_R &= W4 \text{ (lesser of } W3, W4) \\ &= 144.03 \text{ MG/year}\end{aligned}$$

The potential red wine fermentation emissions would be:

$$PE1_{red} = E_{fr} \times W_R$$

Where,

$$\begin{aligned}E_{fr} &= \text{red wine emission factor} \\ &= 6.2 \text{ lb-VOC/1,000 gal (per District FYI-114)}\end{aligned}$$

$$\begin{aligned}PE1_{red} &= (6.2 \text{ lb-VOC/1,000 gal}) \times (144.03 \times 10^6 \text{ gal/yr}) \\ &= 892,986 \text{ lb-VOC/year}\end{aligned}$$

Red Wine Storage Emissions:

Storage emissions are calculated as follows:

$$PE1_{red} = E_s \times T \times W_R$$

Where:

$$\begin{aligned}E_s &= \text{wine storage emission factor based on District FYI-114 (6/13/12). The existing tanks} \\ &\text{allow them to store up to 20\% alcohol by volume. Thus, } E_s \text{ is equal to } 0.175 \text{ lb-VOC/1,000} \\ &\text{gal.}\end{aligned}$$

$$\begin{aligned}T &= \text{total post fermentation inter-tank transfers per batch of wine} \\ &= 8\end{aligned}$$

$$W_R = 144.03 \text{ MG/year (determined above)}$$

$$\begin{aligned}PE1_{red} &= (0.175 \text{ lb-VOC/1,000 gal}) \times (8) \times (144.03 \times 10^6 \text{ gal/yr}) \\ &= 201,642 \text{ lb-VOC/year}\end{aligned}$$

Total PE1 for Red Wine Production:

Potential emissions from 100% red wine production scenario are then determined as follows:

$$\begin{aligned}PE1_{red} &= PE1_{red \text{ fermentation}} + PE1_{red \text{ storage}} \\ &= 892,986 \text{ lb-VOC/year} + 201,642 \text{ lb-VOC/year} \\ &= 1,094,628 \text{ lb-VOC/year}\end{aligned}$$

Summary:

The facility's emissions potential for fermentation and storage operations is then taken to be the greater of the white or red emissions potential determined above.

$$\begin{aligned}PE1 &= \text{greater of } PE1_{white} \text{ or } PE1_{red} \\ &= 1,094,628 \text{ lb-VOC/year}\end{aligned}$$

2. Potential to Emit PE2 – (existing plus new tanks)

The potential annual VOCs from fermentation and storage operations at this winery are determined as follows:

White Wine Fermentation

$$\begin{aligned} W1 &= C \times D_w \times M \text{ (limited by crusher capacity)} \\ W2 &= P \times D_w \times M \text{ (limited by pressing capacity)} \\ W3 &= (V_{FW} \times D_w) / W_{FW} \text{ (limited by white fermenter volume)} \\ W4 &= (V_T \times D_w) / R_{TW} \text{ (limited by overall tank processing)} \end{aligned}$$

Where,

$$\begin{aligned} C &= \text{grape crushing capacity} \\ &= 13,200 \text{ tons/day} \\ D_w &= \text{days in a white wine crush season} \\ &= 120 \text{ days} \\ M &= \text{amount of juice produced per ton of grapes crushed} \\ &= 200 \text{ gal/ton} \\ P &= \text{pressing capacity} \\ &= 8,400 \text{ tons/day} \\ W_{FW} &= \text{white fermentation period} \\ &= 10 \text{ days} \\ R_{TW} &= \text{total winery retention time for white wine} \\ &= 40 + 10 \\ &= 50 \text{ days} \\ V_{FW} &= \text{total volume of white wine fermenters} \\ &= 52,868,604 \text{ gal (volume after all three phases projects)} \\ V_T &= \text{total winery cooperage} \\ &= 60,838,194 \text{ gal (volume after all three phases projects)} \end{aligned}$$

Using the above parameters,

$$\begin{aligned} W1 &= (13,200 \times 120 \times 200) &= 316.80 \text{ MG/year} \\ W2 &= (8,400 \times 120 \times 200) &= 201.60 \text{ MG/year} \\ W3 &= (52,868,604 \times 120) / 10 &= 634.42 \text{ MG/year} \\ W4 &= (60,838,194 \times 120) / 50 &= 146.01 \text{ MG/year} \end{aligned}$$

CBUS installed seven wine storage tanks under the Phase 1 and two wine storage tanks under the Phase 2 of the overall project, and is now requesting to install additional 24 wine storage tanks under this Phase 3 of the overall project. These tanks will result an increase facility's storage capacity, and no changes to the facility's crushing and pressing capacities. Therefore, crushing capacity and pressing capacity (W1 and W2) are not considered from the analysis. Only the fermenter volume and overall tank processing (W3 and W4) are compared.

$$\begin{aligned} W_w &= W4 \text{ (lesser of } W3, W4) \\ &= 146.01 \text{ MG/year} \end{aligned}$$

The potential white wine fermentation emissions would be:

$$PE2_{white} = E_{fw} \times W_w$$

Where:

E_{fw} = white wine emission factor
= 2.5 lb-VOC/1,000 gal (per District FYI-114)

$$\begin{aligned} PE2_{white} &= (2.5 \text{ lb-VOC/1,000 gal}) \times (146.01 \times 10^6 \text{ gal/yr}) \\ &= 365,025 \text{ lb-VOC/year} \end{aligned}$$

White Wine Storage Emissions:

Storage emissions are calculated as follows:

$$PE2_{white} = E_s \times T \times W_w$$

Where,

E_s = wine storage emission factor based on District FYI-114 (6/13/12). The existing tanks allow them to store up to 20% alcohol by volume. Thus, E_s is equal to 0.175 lb-VOC/1,000 gal.

T = total post fermentation inter-tank transfers per batch of wine
= 8

W_w = 145.98 MG/year (determined above)

$$\begin{aligned} PE2_{white} &= (0.175 \text{ lb-VOC/1,000 gal}) \times (8) \times (146.01 \times 10^6 \text{ gal/year}) \\ &= 204,414 \text{ lb-VOC/year} \end{aligned}$$

Total PE2 for White Wine Production:

Potential emissions from 100% white wine production scenario are then determined as follows:

$$\begin{aligned} PE2_{white} &= PE2_{white \text{ fermentation}} + PE2_{white \text{ storage}} \\ &= 365,025 \text{ lb-VOC/year} + 204,414 \text{ lb-VOC/year} \\ &= 569,439 \text{ lb-VOC/year} \end{aligned}$$

Red Wine Fermentation Emissions:

$W1$ = $C \times D_r \times M$ (limited by crusher capacity)

$W2$ = $P \times D_r \times M$ (limited by pressing capacity)

$W3$ = $(V_{FR} \times F \times D_r)/R_{FR}$ (limited by red fermenter volume)

$W4$ = $(V_T \times D_r)/R_{TS}$ (limited by overall tank processing)

Where,

C = grape crushing capacity
= 13,200 tons/day

D_r = days in a red wine crush season
= 120 days

F = Fill factor for red wine fermentation
= 80%

M = amount of juice produced per ton of grapes crushed

$P = 200 \text{ gal/ton}$
 $P = \text{pressing capacity}$
 $= 8,400 \text{ tons/day}$
 $R_{FR} = \text{red fermentation period}$
 $= 5 \text{ days}$
 $R_{TS} = \text{total winery retention time for red wine,}$
 $= 40 + 5$
 $= 45 \text{ days}$
 $V_{FR} = \text{total volume of red wine fermenters}$
 $= 52,868,604 \text{ gal}$
 $V_T = \text{total winery cooperage}$
 $= 60,838,194 \text{ gal}$

Using the above parameters,

$W1 = (13,200 \times 120 \times 200) = 316.80 \text{ MG/year}$
 $W2 = (8,400 \times 120 \times 200) = 201.60 \text{ MG/year}$
 $W3 = (52,868,604 \times 0.8 \times 120) / 5 = 1,015.08 \text{ MG/year}$
 $W4 = (60,838,194 \times 120) / 45 = 162.24 \text{ MG/year}$

CBUS installed seven wine storage tanks under the Phase 1 and two wine storage tanks under the Phase 2 of the overall project, and is now requesting to install additional 24 wine storage tanks under this Phase 3 of the overall project. These tanks will result an increase facility's storage capacity, and no changes to the facility's crushing and pressing capacities. Therefore, crushing capacity and pressing capacity (W1 and W2) are not considered from the analysis. Only the fermenter volume and overall tank processing (W3 and W4) are compared.

$W_R = W4 \text{ (lesser of } W3, W4)$
 $= 162.24 \text{ MG/year}$

The potential red wine fermentation emissions would be:

$PE2_{red} = E_{fr} \times W_R$

Where,

$E_{fr} = \text{red wine emission factor}$
 $= 6.2 \text{ lb-VOC/1,000 gal (per District FYI-114)}$

$PE2_{red} = (6.2 \text{ lb-VOC/1,000 gal}) \times (162.24 \times 10^6 \text{ gal/yr})$
 $= 1,005,888 \text{ lb-VOC/year}$

Red Wine Storage Emissions:

Storage emissions are calculated as follows:

$PE2_{red} = E_s \times T \times W_R$

Where:

E_s = wine storage emission factor based on District FYI-114 (6/13/12). The existing tanks allow them to store up to 20% alcohol by volume. Thus, E_s is equal to 0.175 lb-VOC/1,000 gal.

T = total post fermentation inter-tank transfers per batch of wine
= 8

W_R = 162.20 MG/year (determined above)

$$\begin{aligned} PE_{2_{red}} &= (0.175 \text{ lb-VOC/1,000 gal}) \times (8) \times (162.24 \times 10^6 \text{ gal/yr}) \\ &= 227,136 \text{ lb-VOC/year} \end{aligned}$$

Total PE2 for Red Wine Production:

Potential emissions from 100% red wine production scenario are then determined as follows:

$$\begin{aligned} PE_{2_{red}} &= PE_{2_{red \text{ fermentation}}} + PE_{2_{red \text{ storage}}} \\ &= 1,005,888 \text{ lb-VOC/year} + 227,136 \text{ lb-VOC/year} \\ &= 1,233,024 \text{ lb-VOC/year} \end{aligned}$$

Summary:

The facility's emissions potential for fermentation and storage operations is then taken to be the greater of the white or red emissions potential determined above.

$$\begin{aligned} PE_2 &= \text{greater of } PE_{2_{white}} \text{ or } PE_{2_{red}} \\ &= 1,233,024 \text{ lb-VOC/year} \end{aligned}$$

3. Potential to Emit (new tanks)

The potential emissions from new tanks would be calculated as the difference between the post project and pre project potential emissions based on physical capacity. Thus,

Potential Emissions Based on Physical Capacity of Wine Processing Equipment	
Category	Total (lb-VOC/yr)
Post Project	1,233,024
Pre Project	1,094,628
PE New Tanks	138,396

APPENDIX D
BACT Guideline 5.4.13
Wine Storage Tank

SJVAPCD
Best Available Control Technology (BACT) Guideline 5.4.13*
Last Update 9/26/2011

Wine Storage Tank - Non-Wood Material**

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

**** This guideline is applicable to a wine storage tank that is not constructed out of wooden materials.**

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

APPENDIX E

Top-Down BACT Analysis

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 identifies the following Achieved in Practice and Technologically Feasible BACT options for wine storage tanks:

- 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. (Achieved in Practice)
- 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)

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

Step 2 - Eliminate Technologically Infeasible Options

None of the above listed technologies are technologically infeasible.

Step 3 - Rank Remaining Control Technologies by Control Effectiveness

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

(*) Following recent District practice, thermal and catalytic oxidation will be ranked together.

Step 4 - Cost Effectiveness Analysis

A cost effective analysis must be performed for all control options that have not been determined to be achieved in practice in the list from Step 3 above, in the order of their ranking, to determine the cost effective option with the lowest emissions.

District BACT Policy APR 1305 establishes annual cost thresholds for imposed control based upon the amount of pollutants reduced by the controls. If the cost of control is at or below the threshold, it is considered a cost effective control. If the cost exceeds the threshold, it is not cost effective and the control is not required. Per District BACT Policy, the maximum cost limit for VOC reduction is \$17,500 per ton of VOC emissions reduced.

Uncontrolled VOC Emissions from the Storage Tanks

CBUS proposes to install twenty-four wine storage tanks. Therefore, for the purposes of this cost effectiveness analysis, uncontrolled storage VOC emissions will be set equal to the total VOC emissions from these tanks.

Uncontrolled Storage PE = 14,952 lb-VOC/year (equivalent to 7.48 ton-VOC/year)

Total Annual Cost

Total Annual Cost = Cost of Control System + Annual Operating Cost + Ducting/Piping/CIP

The Total Annual Cost is the cumulative total of capital cost of control device, annual operating cost, plus the cost of ducting/piping/CIP. The applicant has provided capital cost estimate for control device for the each option listed below as well as the ducting/piping/CIP. As a first step, if just using the partial cost of the ductwork plus CIP system is sufficient to show that the control option is not cost effective, additional cost may not be needed for the calculation purposes for this project.

Collection System Capital Investment (based on ductwork and clean-in-place system)

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

Basis of Cost Information:

- The costs for the ductwork and the required clean-in-place (CIP) system are based on information from the 2005 Eichleay Study. The 2005 Eichleay study was used in development of District Rule 4694 Wine Fermentation and Storage Tanks and includes substantial information on the costs and details of the potential application of VOC controls to wineries and addresses many of the technical issues of the general site specific factors for wineries.
- The District performed a cost survey of stainless steel ducting/piping and found that the values stated in the Eichleay report including the cost of inflation (applied as stated below) were less expensive; therefore, as a conservative estimate, the District will use the cost of

- ducting/piping from the Eichleay report which will include ducting, fittings, bolt up, handle, and install. A summary of the ducting/piping cost survey is included in Appendix E2.
- Eichleay's cost estimate for ducting included the duct, fittings, bolt up, handle and install; therefore, the District did not allow the additional costs for foundations & supports, handling & erection, electrical, piping or painting, as allowed by the EPA Cost Manual.
 - The collection system consists of stainless steel place ductwork (stainless steel is required due to food grade product status) with isolation valving, connecting the tanks to a common manifold system which ducts the combined vent to the common control device. The cost of dampers and isolation valving, installed in the ductwork, will be included in the cost estimate.
 - A minimum duct size is established at six inches diameter at each tank to provide adequate strength for spanning between supports.
 - One of the major concerns of a manifold duct system is microorganisms spoiling the product, and transferring from one tank to another. It is necessary to design into the system a positive disconnect of the ducting system when the tanks are not being filled. There are a number of ways this can be done. In this case, an automatic butterfly valve with a physical spool to disconnect the tank from the duct will be utilized.
 - The ducting/piping costs quoted in the Eichleay study are from 2005 and must be adjusted to reflect 2017 prices. An overall inflation amount of 24.34% which was taken from the United States Department of Labor, Bureau of Labor Statistics, Consumer Price Index (CPI) Inflation Calculator and applied to the ducting/piping costs to determine the current 2017 prices: http://www.bls.gov/data/inflation_calculator.htm.
 - See Attachment E1 for tank farm ducting layout.

Capital Cost of Ductwork

As detailed in the tank layout sketches and the ductwork cost calculations included in Attachment E1, the cost for the proposed twenty-four wine storage tanks is summarized below:

- Main Duct to CIP and Emissions Control (10" Diameter): 80 feet x \$144.33/foot = \$11,546
- Connection from set of tanks (1675-1678 & 1687-1690) to Junction 1 of Main Duct (6" Diameter): 40.67 feet x \$62.17/foot = \$2,528
- Connection from set of tanks (1679-1682 & 1691-1694) to Junction 2 of Main Duct (6" Diameter): 15.63 feet x \$62.17/foot = \$972
- Connection from set of tanks (1683-1686 & 1695-1698) to Junction 2 of Main Duct (6" Diameter): 73.29 feet x \$62.17/foot = \$4,556
- Connection Junction 1 to Junction 2 of Main Duct (8" Diameter): 43.25 feet x \$103.26/foot = \$4,466
- Connections for Each Set of Eight Tanks (3 Sets):
 - o Main Connection, First Section (6" Diameter): 32.25 feet x \$62.17/foot = \$2,005
 - o Main Connection, Second Section (6" Diameter): 28.25 feet x \$62.17/foot = \$1,756
 - o Main Connection, Third Section (6" Diameter): 32.25 feet x \$62.17/foot = \$2,005
 - o Connections from 8 Tanks to Duct (6" Diameter): 115.33 feet x \$62.17/foot = \$7,170
 - o Subtotal for all three tank sets: 3 x (\$2,005 + \$1,756 + \$2,005 + \$7,170) = \$38,508
- Ducting Isolation Components for tanks:
 - o Unit installed cost for 6 inch butterfly valve: \$2,125/valve x 24 valves = \$51,000
 - o Unit installed cost one foot removable spool: \$500/tank x 24 tanks = \$12,000
- Ducting support allowance:

- o Ducting support allowance is \$4,000/tank: \$4,000/tank x 24 tanks = \$96,000
- o Ducting support allowance for one 90 foot pipe support bridge is \$90,000

Total Ductwork Capital cost = \$11,546 + \$2,528 + \$972 + \$4,556 + \$4,466 + \$38,508 +
\$51,000 + 12,000 + \$96,000 + \$90,000
= **\$311,576**

Capital Cost of Ductwork for 24 Wine Storage Tanks	
Cost Description	Cost (\$)
Total Ductwork cost for all Tanks	\$311,576
Adjusting factor from 2005 dollars to present month in 2017 dollars (24.34% Inflation)	1.2434
Inflation adjusted duct cost	\$387,418
The following cost data is taken from EPA Control Cost Manual, Sixth Edition (EPA/452/B-02-001).	
Direct Costs (DC)	
Base Equipment Costs (Ductwork) See Above	\$387,418
Instrumentation (not estimated)	-
Sales Tax 3.8125% ² of Base Equipment Costs	\$14,770
Freight 5% of Base Equipment Costs	\$19,371
Purchased Equipment Cost (PEC)	\$421,560
Foundations & supports (Included in Base Equipment Costs)	-
Handling & erection (Included in Base Equipment Costs)	-
Electrical (not required)	-
Piping (not required)	-
Painting (not required)	-
Insulation 1% of PEC	\$4,216
Direct installation costs	\$4,216
Total Direct Costs	\$425,775
Indirect Costs (IC)	
Engineering 10% of PEC	\$42,156
Construction and field expenses 5% of PEC	\$21,078
Contractor fees 10% of PEC	\$42,156
Start-up 2% of PEC	\$8,431
Performance test 1%	\$4,216
Total Indirect Costs	\$118,037
Subtotal Capital Investment (SCI) (DC + IC)	\$543,812
Contingencies – 15% of SCI	\$81,572
Total Capital Investment (TCI) (SCI + Contingency)	\$625,384

² Pollution control equipment may qualify for CA tax partial exemption. The exemption rate is 4.1875%, so the reduced sales tax rate for San Joaquin County equals 3.8125% (8% - 4.1875%). http://www.boe.ca.gov/sutax/manufacturing_exemptions.htm#Purchasers

Capital Cost for Clean-In-Place (CIP) System

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

Capital Cost of Clean-In-Place (CIP) System for 24 Wine Storage Tanks	
Cost Description	Cost (\$)
Cost of CIP system: \$200,000	\$200,000
The following cost data is taken from EPA Control Cost Manual, Sixth Edition (EPA/452/B-02-001).	
Direct Costs (DC)	
Base Equipment Costs (CIP System) See Above	\$200,000
Instrumentation - 10% of Base Equipment	\$20,000
Sales Tax - 3.8125% of Base Equipment	\$7,625
Freight - 5% of Base Equipment	\$10,000
Purchased Equipment Cost (PEC)	\$237,625
Foundations & supports - 8% of PEC	\$19,010
Handling & erection - 14% of PEC	\$33,268
Electrical - 4% of PEC	\$9,505
Piping - accounted for in ductwork cost	-
Painting - 1% of PEC	\$2,376
Insulation - 1% of PEC	\$2,376
Direct Installation Costs (DIC)	\$66,535
Total Direct Costs (DC) = (PEC + DIC)	\$304,160
Indirect Costs (IC)	
Engineering - 10% of PEC	\$23,763
Construction and field expenses - 5% of PEC	\$11,881
Contractor fees - 10% of PEC	\$23,763
Start-up - 2% of PEC	\$4,753
Performance test - 1% of PEC	\$2,376
Total Indirect Costs (IC)	\$66,535
Subtotal Capital Investment (SCI) = (DC + IC)	\$370,695
Contingencies - 15% of SCI	\$55,604
Total Capital Investment (TCI) (SCI + Contingency)	\$426,299

Annualized Capital Costs of Ductwork and CIP System for 24 Wine Storage Tanks

Total Capital Cost = Ductwork + CIP System
= \$625,384 + \$426,299
= **\$1,051,683**

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

Annualized Capital Investment = Initial Capital Investment x Amortization Factor

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

Therefore,

$$\begin{aligned} \text{Annualized Capital Investment for the ductwork and CIP system} &= \$1,051,683 \times 0.163 \\ &= \$171,424/\text{year} \end{aligned}$$

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

Total Annual Cost

As calculated above, the annualized capital cost for the collection system ductwork equipment alone is \$171,424.

Emissions Reduction:

The amount of VOC emissions controlled for this control option is calculated as follow:

$$\begin{aligned} \text{Controlled VOC emissions} &= 14,952 \text{ lb-VOC/year} \times 1 \text{ tons-VOC}/2,000 \text{ lb-VOC} \times 0.98 \\ &= 7.33 \text{ ton-VOC/year} \end{aligned}$$

Cost Effectiveness:

Cost of VOC reduction is calculated as follow:

$$\begin{aligned} \text{Cost of VOC reduction} &= \$171,424/\text{year} \div 7.33 \text{ ton-VOC/year} \\ &= \$23,387/\text{ton-VOC} \end{aligned}$$

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

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

Total Annual Cost

As calculated above, the annualized capital cost for the collection system ductwork equipment alone is \$171,424.

Emissions Reduction:

The amount of VOC emissions controlled for this control option is calculated as follow:

$$\begin{aligned}\text{Controlled VOC emissions} &= 14,952 \text{ lb-VOC/year} \times 1 \text{ tons-VOC}/2,000 \text{ lb-VOC} \times 0.95 \\ &= 7.10 \text{ ton-VOC/year}\end{aligned}$$

Cost Effectiveness:

Cost of VOC reduction is calculated as follow:

$$\begin{aligned}\text{Cost of VOC reduction} &= \$171,424/\text{year} \div 7.10 \text{ ton-VOC/year} \\ &= \$24,144/\text{ton-VOC}\end{aligned}$$

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

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

Total Annual Cost

As calculated above, the annualized capital cost for the collection system ductwork equipment alone is \$171,424.

Emissions Reduction:

The amount of VOC emissions controlled for this control option is calculated as follow:

$$\begin{aligned}\text{Controlled VOC emissions} &= 14,952 \text{ lb-VOC/year} \times 1 \text{ tons-VOC}/2,000 \text{ lb-VOC} \times 0.90 \\ &= 6.73 \text{ ton-VOC/year}\end{aligned}$$

Cost Effectiveness:

Cost of VOC reduction is calculated as follow:

$$\begin{aligned}\text{Cost of VOC reduction} &= \$171,424/\text{year} \div 6.73 \text{ ton-VOC/year} \\ &= \$25,472/\text{ton-VOC}\end{aligned}$$

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

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

Total Annual Cost

As calculated above, the annualized capital cost for the collection system ductwork equipment alone is \$171,424.

Emissions Reduction:

The amount of VOC emissions controlled for this control option is calculated as follow:

$$\begin{aligned}\text{Controlled VOC emissions} &= 14,952 \text{ lb-VOC/year} \times 1 \text{ tons-VOC}/2,000 \text{ lb-VOC} \times 0.70 \\ &= 5.23 \text{ ton-VOC/year}\end{aligned}$$

Cost Effectiveness:

Cost of VOC reduction is calculated as follow:

$$\begin{aligned}\text{Cost of VOC reduction} &= \$171,424/\text{year} \div 5.23 \text{ ton-VOC/year} \\ &= \$32,777/\text{ton-VOC}\end{aligned}$$

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

Option 5 – Insulation, PVRV, "Gas-Tight" Tank Operation, and Storage Temperature not Exceeding 75 deg F, Achieved within 60 days of Completion of Fermentation

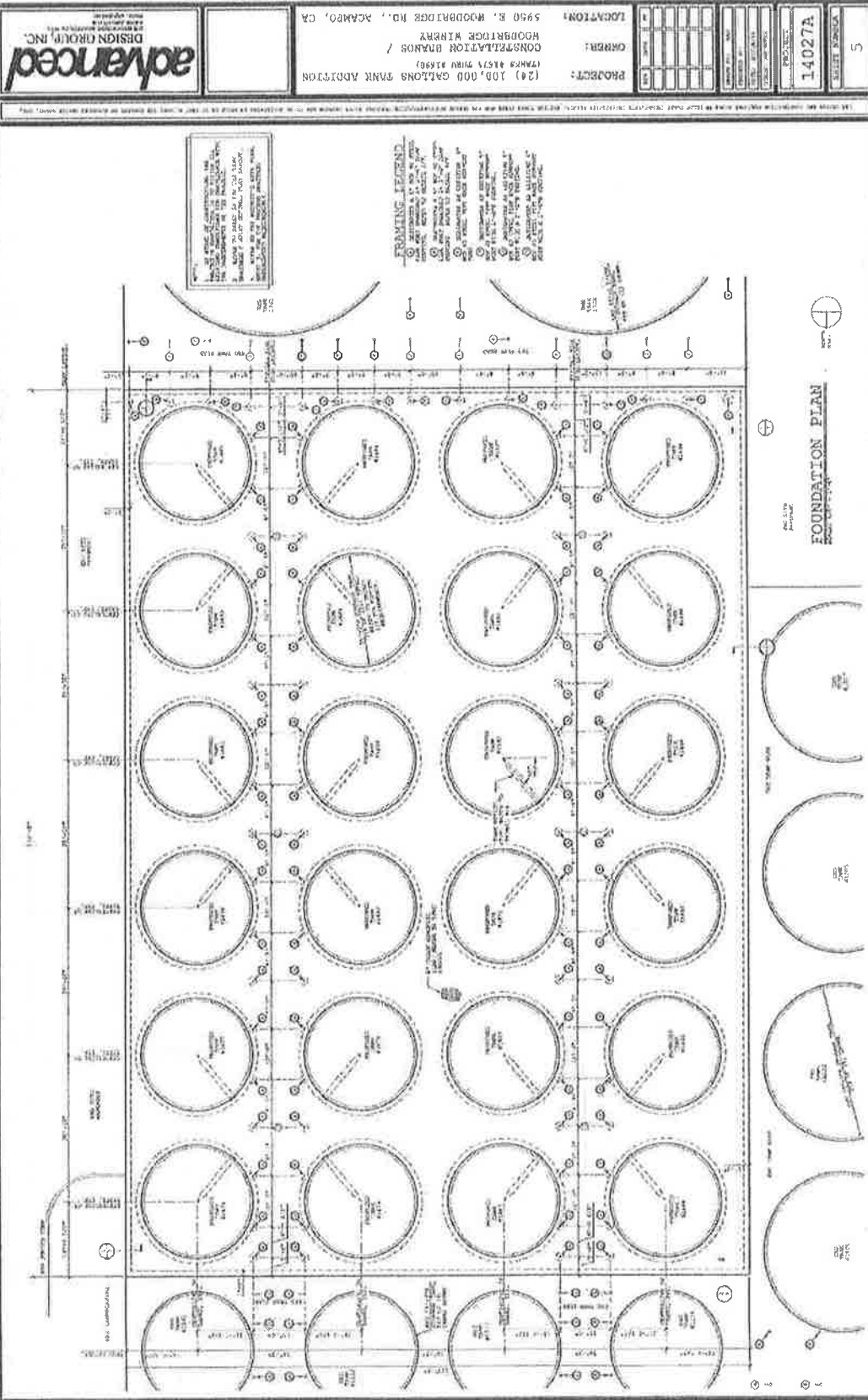
The only remaining control option in step 3 above has been deemed AIP for this class and category of source and per the District BACT policy is required regardless of the cost. Therefore, a cost effectiveness analysis is not required.

Step 5 - Select BACT

All identified feasible options with control efficiencies higher than the option proposed by the facility are not cost effective. Each of the proposed wine storage tanks is insulated and is equipped with pressure/vacuum valve set within 10% of the maximum allowable working pressure of the tank, and is being operated "gas tight" tank operation. The applicant has proposed to maintain a continuous storage temperature at or below 75°F within 60 days of completion of fermentation. Therefore, this proposal complies with the BACT requirements.

APPENDIX E1

Tank Farm Layout and Estimated Ducting Sizes & Cost

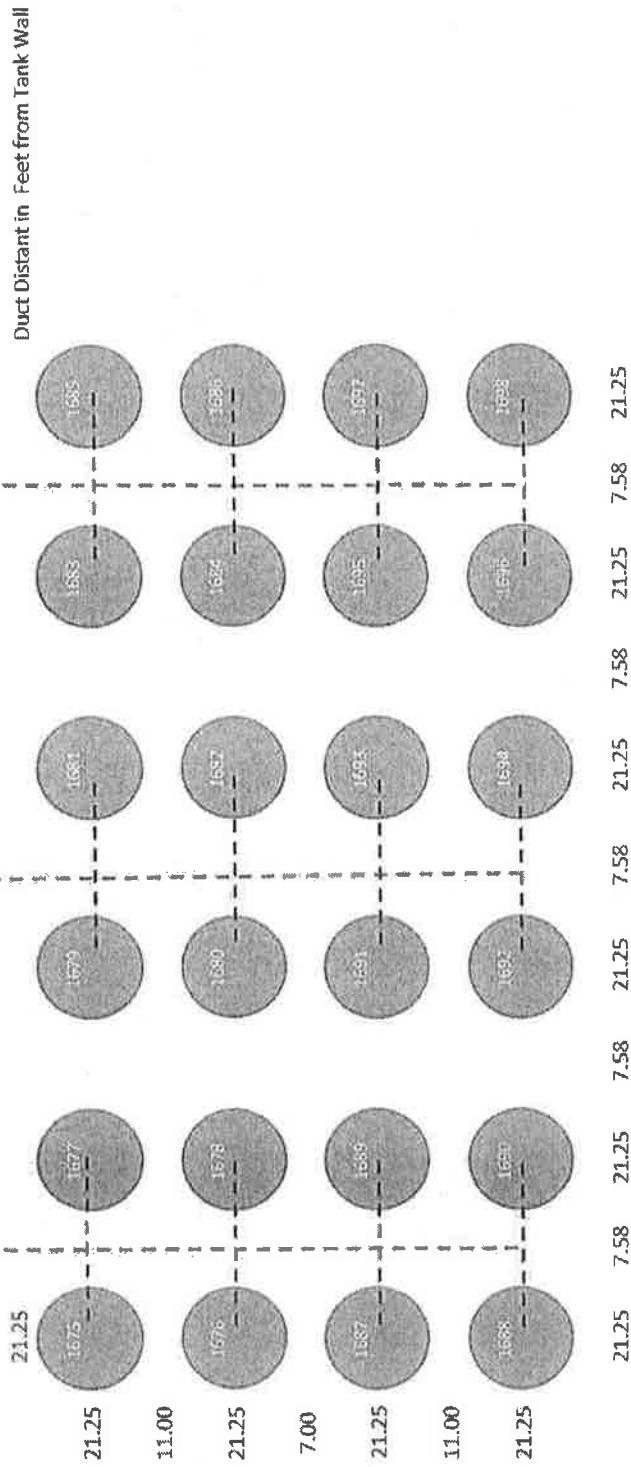


CIP and Emission Control Units #1
Installed in Adjacent
Parking Lot

--- Shows Ducting Route

--- Shows Tank Connection Ducting

80 Length Main connection to CIP and Emission Control Unit 1. Includes elevation adjustment from to of tanks.



Beginning Tank Number	Ending Tank Number	Length Between Nodes	From Tank to Main Duct Length Feet	Design Duct Velocity Feet/Second	Gas flow rate in CFM for filling one 108K gal tank with max filling rate of 5 hr/tank	Duct size from tank to main diameter inches	Nominal Duct Size diameter in inches (See comments)	Number of Tanks feeding Ending Node	Total feet	Cost Per Foot from Eichelley (See Comments)		Cost
N/A	N/A	N/A	345.996	40	50	1.96	6.00		346	\$62.17		\$21,510.82
Main Duction												
1696/1698	1695/1697	32.25	N/A	40	101	2.78	6.00	2	32	\$62.17		\$2,005.01
1695/1697	1684/1686	28.25	N/A	40	202	3.93	6.00	4	28	\$62.17		\$1,756.32
1684/1686	1683/1685	32.25	N/A	40	303	4.81	6.00	6	32	\$62.17		\$2,005.01
1683/1685	Junction 2	73.29	N/A	40	404	5.55	6.00	8	73	\$62.17		\$4,556.56
1692/1694	1691/1693	32.25	N/A	40	101	2.78	6.00	2	32	\$62.17		\$2,005.01
1691/1693	1680/1682	28.25	N/A	40	202	3.93	6.00	4	28	\$62.17		\$1,756.32
1680/1682	1679/1681	32.25	N/A	40	303	4.81	6.00	6	32	\$62.17		\$2,005.01
1679/1681	Junction 2	15.63	N/A	40	404	5.55	6.00	8	16	\$62.17		\$971.42
Junction 2	Junction 1	43.25	N/A	40	807	7.85	8.00	16	43	\$103.25		\$4,465.60
1688/1690	1687/1689	32.25	N/A	40	101	2.78	6.00	2	32	\$62.17		\$2,005.01
1687/1689	1676/1678	28.25	N/A	40	202	3.93	6.00	4	28	\$62.17		\$1,756.32
1676/1678	1675/1677	32.25	N/A	40	303	4.81	6.00	6	32	\$62.17		\$2,005.01
1675/1677	Junction 1	40.67	N/A	40	404	5.55	6.00	8	41	\$62.17		\$2,528.27
Junction 1	Emission Controls	80.00	N/A	40	1,211	9.62	10.00	24	80	\$144.33		\$11,546.67
												\$62,878.33

Estimated duct sizes and cost that need to handle the storage gas flow rates

Question	24 Units
The working volume of the tank is {in gallons}	108,000 Gallons
The idea gas law applies $PV = nRT$	1.00 atm
P equals the absolute atmosphere pressure	lb-Moles
n equals the number of lb-moles of the vapor space gas	Cubic Feet
V is the volume	520.0 Deg R
T = the absolute temperature in Degrees Rankine	

Re-Gas Law Constant	0.73	lb-mole
Density of Dry Air at 60 Deg F	0.08	lb/cubic foot
Molecular Weight of N ₂	28.01	
Molecular Weight of O ₂	31.99	
Molecular Weight of Alcohol	46.02	
Molecular Weight of Water	18.02	
Percent of Air that is N ₂ Source Hand Book Chemistry and Physics	0.78	
Percent of Air that is O ₂ Source Hand Book Chemistry and Physics	0.21	
Molecular Weight of Air	28.58	

Modes of air displacement assuming air does not disperse into the water.	38.11 lb-moles
AAWW Treflow cells information for the storage emissions test	27,215
Mobir Fraction Alcohol in Vapor	0.9498
Daily Maximum Emissions in Pounds/day of alcohol	26.2
Weight of water exiting tank from Tank 4.0 model	26.24 lb's
Weight of alcohol exiting tank from Tank 4.0 model	28.22 lb's
Modes of alcohol exiting the tank from Tanks 4.0 model	0.61 lb-moles
Moles of water exiting the tank from Tanks 4.0 model	1.14 lb-moles
Total number of moles leaving the tank	36.86
Cubic feet of gas leaving the tank per ideal gas law	15,135.89 Cubic feet
The tank is filled in 5 hours (ignoring rate @ 300 gal/min)	300.00 Minutes
	5.00 Hrs

Gas composition on a molar bases		Sum
Air	0.9566 %	
Water	0.0286 %	
Alcohol	0.0154 %	
Sum	1.0000	

Gas composition on a weight bases		Sum
Air	0.9572 %	
Water	0.0160 %	
Alcohol	0.0248 %	
Sum	1.0000	

- 3) The flow rate (shown in the brown cells) is for one tank at a maximum fill rate with the speed of a pump rated at 360 gal/min. It is assumed that one tank can be filled in a 4-hour period and emptied in a 5-hour period. Each tank fills due to its maximum working volume and then empties. The process can be repeated every two days.
- 4) It is assumed the emission control pump will only be needed in the filling process. The estimated flow rate of the pump is shown below. A typical pump runs at about 100 TPD (Total Dynamic Head) and is about 65 to 70% efficient, and 5 pumping distances are short may move down the curve to pump more at a lower TDH.
- 5) There will be only one main duct where the pumping could be stopped while the main duct is cleaned. A CIP system is included for this project. It is assumed that 6 tanks could be filling at one time.

GPM	# of Pumps	Farm	Combined CPM
377	24.0	9.057	1,710.97

2) Assume Ideal Gas at atm pressure

2) The Tanks 4.0 daily emission value is based on turning the tank up to 4 times every day during the month of July. During the emptying process zero emissions are emitted.

Source: Handbook of Chemistry and Physics 91 st Edition Air Properties									
		Density at							
		300 Deg K		Density at 60		Density at 15			
		Deg K	Kgf/Cubic	Deg K	Deg K	Deg K	Deg K	per cubic	meter/cubic
Deg F	Deg K	1.25	1.16	1.27	1.16	1.27	1.16	1.27	1.16
70 F	293 K	1.25	1.16	1.27	1.16	1.27	1.16	1.27	1.16
100 F	311 K	1.25	1.16	1.27	1.16	1.27	1.16	1.27	1.16
200 F	378 K	1.25	1.16	1.27	1.16	1.27	1.16	1.27	1.16
300 F	444 K	1.25	1.16	1.27	1.16	1.27	1.16	1.27	1.16
400 F	511 K	1.25	1.16	1.27	1.16	1.27	1.16	1.27	1.16
500 F	578 K	1.25	1.16	1.27	1.16	1.27	1.16	1.27	1.16
600 F	644 K	1.25	1.16	1.27	1.16	1.27	1.16	1.27	1.16
700 F	711 K	1.25	1.16	1.27	1.16	1.27	1.16	1.27	1.16
800 F	778 K	1.25	1.16	1.27	1.16	1.27	1.16	1.27	1.16
900 F	844 K	1.25	1.16	1.27	1.16	1.27	1.16	1.27	1.16
1000 F	911 K	1.25	1.16	1.27	1.16	1.27	1.16	1.27	1.16

APPENDIX E2

Ducting Cost Survey

Ducting/Piping Cost Comparison

Duct Size Diameter (in.)	2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	22"	24"	28"
Eichleay - Ducting/Piping Only \$/Foot	--	--	--	\$23.17	\$38.59	\$54.00	\$62.00	\$65.50	\$69.00	\$86.00	\$92.00	\$99.00	\$106.00	\$119.00
Eichleay - Ducting/Piping Only \$/Foot Including 21.93% for Inflation	--	--	--	\$28.25	\$47.05	\$65.84	\$75.60	\$79.86	\$84.13	\$104.86	\$112.18	\$120.71	\$129.25	\$145.10
Average \$/Foot from District Cost Survey	\$15.49	\$30.85	\$27.67	\$44.13	\$37.50	\$33.13	\$93.75	\$181.70	\$216.50	\$189.02	\$308.40	--	\$193.99	--
Average \$/Foot from District Cost Survey from Suppliers of Both 3" and 6"	--	\$30.85	--	\$57.26	--	--	--	--	--	--	--	--	--	--

Ducting/Piping Costs based on Eichleay Report

Note: Minimum of 6" Diameter for Structural Support														
Duct Size Diameter (in.)	2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	22"	24"	28"
Ducting/Piping Only \$/Foot	--	--	--	\$23.17	\$38.59	\$54.00	\$62.00	\$65.50	\$69.00	\$86.00	\$92.00	\$99.00	\$106.00	\$119.00
Ducting + Fittings, Bolt Up, Handling, & Install \$/Foot	--	--	--	\$62.17	\$103.25	\$144.33	\$143.83	\$174.17	\$204.52	\$251.38	\$309.38	\$306.44	\$397.67	\$476.73
Ducting + Fittings, Bolt Up, Handling, & Install \$/Foot	--	--	--	\$62.17	\$103.25	\$144.33	\$143.83	\$174.17	\$204.52	\$251.38	\$309.38	\$306.44	\$397.67	\$476.73

Supplier: Grainger (<http://www.grainger.com>)

Location: Fresno, CA and Ceres, CA

Schedule 10														
Duct Size Diameter (in.)	2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	22"	24"	
Price (\$)	\$229.50	\$387.75	\$587.50	--	--	--	--	--	--	--	--	--	--	--
Length (feet)	10	10	10	--	--	--	--	--	--	--	--	--	--	--
Price/Foot (\$)	\$22.95	\$38.78	\$58.75	--	--	--	--	--	--	--	--	--	--	--

Supplier: Stockton Pipe and Supply Inc (<http://www.stocktonpipe.net>)

Location: Stockton, CA

Note: Sizes over 12" Diameter need to be ordered from Mill														
0.109" thickness tube or Schedule 10 Pipe														
Duct Size Diameter (in.)	2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	22"	24"	
Price (\$)	--	--	--	--	--	\$700.00	\$840.00	--	--	--	--	--	\$3,159.60	
Length (feet)	--	--	--	--	--	20	20	--	--	--	--	--	20	
Price/Foot (\$)	--	--	--	--	--	\$35.00	\$42.00	--	--	--	--	--	\$157.98	

Supplier: Valley Iron Inc (<http://www.stocktonpipe.net>)

Location: Fresno, CA

Note: Sch 10 T-304 20'														
Schedule 10 Pipe														
Duct Size Diameter (in.)	2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	22"	24"	
Price (\$)	--	--	--	--	--	--	--	--	--	--	--	--	--	
Length (feet)	--	--	--	--	--	20	20	--	--	--	--	--	--	
Price/Foot (\$)	--	--	--	--	--	\$33.90	\$33.90	--	--	--	--	--	--	

APPENDIX F

Compliance Statement



**Constellation
Brands**

03/13/2017

Mr. Nick Peirce
San Joaquin Valley Air Pollution Control District
4800 Enterprise Way
Modesto, CA 95356-8718

Subject: Compliance Statement for N-2321 Woodbridge Winery

Dear Mr. Peirce:

In accordance with District Rule 2201, Section 4.15, "Additional Requirements for New Major Sources and Federal Major Modifications," Woodbridge Winery is pleased to provide this compliance statement regarding its proposed installation of (24) wine storage tanks for project N-2321.

All major stationary sources in California owned or operated by Woodbridge Winery, or by any entity controlling, controlled by, or under common control with Constellation Brands U.S. Operations Inc., and which are subject to emission limitations, are in compliance or on a schedule for compliance with all applicable emission limitations and standards. These sources include one or more of the following facilities:

Woodbridge Winery (N-2321)
5950 East Woodbridge Rd.
Acampo, Ca 95220

Turner Road Vintners (N-4939)
4614 West Turner Road
Lodi, Ca 95242

Mission Bell Winery (C-628)
12667 Road 24
Madera, CA 93637

Based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Please contact me if you have any questions regarding this compliance statement.

Sincerely,

Jim Crandell, Facilities Director

Woodbridge Winery

APPENDIX G
Quarterly Net Emissions Change (QNEC)

Quarterly Net Emissions Change (QNEC)

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

$NEC_{SLC} = [PE2_{SLC} - PE1_{SLC}] + 4$, where:

NEC_{SLC} = Quarterly Net Emissions Change for units covered by the SLC.

$PE2_{SLC}$ = PE2 for all units covered by the SLC.

$PE1_{SLC}$ = PE1 for all units covered by the SLC.

$$\begin{aligned} NEC_{SLC} &= [PE2_{SLC} - PE1_{SLC}] + 4 \\ &= [1,167,178_{SLC} - 1,167,178_{SLC}] + 4 \end{aligned}$$

Quarterly NEC [QNEC]			
Pollutant	$PE2_{SLC}$	$PE1_{SLC}$	NEC_{SLC}
VOC	1,167,178	1,167,178	0