



DEC 10 2012

Sue Giampietro  
Franzia Winery LLC  
1887 N. Mooney Blvd  
Tulare, CA 93274

**Re: Notice of Preliminary Decision - Authority to Construct**  
**Project Number: S-1114831**

Dear Ms. Giampietro:

Enclosed for your review and comment is the District's analysis of Franzia Winery LLC's application for an Authority to Construct for the conversion of two wine fermentation and storage tanks to dedicated distilled spirits storage, at 1887 N. Mooney Blvd. in Tulare, Ca.

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

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Ms. Vanesa Gonzalez of Permit Services at (559) 230-5916.

Sincerely,



David Warner  
Director of Permit Services

DW:vg

Enclosures

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

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

**Central Region (Main Office)**  
1990 E. Gettysburg Avenue  
Fresno, CA 93726-0244  
Tel: (559) 230-6000 FAX: (559) 230-6061

**Southern Region**  
34946 Flyover Court  
Bakersfield, CA 93308-9725  
Tel: 661-392-5500 FAX: 661-392-5585



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

**Re: Notice of Preliminary Decision - Authority to Construct**  
**Project Number: S-1114831**

Dear Mr. Tollstrup:

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DEC 10 2012

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

**Re: Notice of Preliminary Decision - Authority to Construct**  
**Project Number: S-1114831**

Dear Mr. Rios:

Enclosed for your review and comment is the District's analysis of Franzia Winery LLC's application for an Authority to Construct for the conversion of two wine fermentation and storage tanks to dedicated distilled spirits storage, at 1887 N. Mooney Blvd. in Tulare, Ca.

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Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Ms. Vanesa Gonzalez of Permit Services at (559) 230-5916.

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David Warner  
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Visalia Times-Delta  
Visalia Times-Delta

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

NOTICE IS HEREBY GIVEN that the San Joaquin Valley Unified Air Pollution Control District solicits public comment on the proposed issuance of Authority to Construct to Franzia Winery LLC for the conversion of two wine fermentation and storage tanks to dedicated distilled spirits storage, at 1887 N. Mooney Blvd. in Tulare, Ca.

The analysis of the regulatory basis for this proposed action, Project #S-1114831, is available for public inspection at [http://www.valleyair.org/notices/public\\_notices\\_idx.htm](http://www.valleyair.org/notices/public_notices_idx.htm) and the District office at the address below. Written comments on this project must be submitted within 30 days of the publication date of this notice to **DAVID WARNER, DIRECTOR OF PERMIT SERVICES, SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT, 1990 EAST GETTYSBURG AVENUE, FRESNO, CA 93726.**

**San Joaquin Valley Air Pollution Control District**  
**Authority to Construct Application Review**  
**Spirits Storage Tank**

Facility Name: Franzia Winery LLC  
Mailing Address: 1887 N. Mooney Blvd.  
Tulare, CA 93274  
Contact Person: Paul Bement  
Telephone: (559) 528-3033  
Fax: (559) 528-2627  
E-Mail: [Paul.Bement@thewinegroup.com](mailto:Paul.Bement@thewinegroup.com)  
Application #s: S-1201-46-1 and -56-1  
Project #: S-1114831  
Deemed Complete: May 12, 2012

Date: December 4, 2012  
Engineer: Vanesa Gonzalez  
Lead Engineer: Joven Refuerzo

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**I. Proposal**

Franzia Winery LLC has requested an Authority to Construct (ATC) permit for the modification of two wine storage, and white wine fermentation tanks units S-1201-46 and -56. The facility is proposing to use these tanks to store spirits with ethanol content of no greater than 98%. The tanks will no longer store or ferment wine.

This project has been logged in as a modification since the tanks themselves are existing tanks. However, storing distilled spirits is a different process than wine fermentation and storage. Therefore these tanks will be considered "new" emission units for BACT purposes and classified as dedicated distilled spirit storage tanks.

This facility is a major source and will remain a major source as a result of this project. However, this facility meets the requirements of District Rule 2530, *Federally Enforceable Potential to Emit*. By meeting the requirements of District Rule 2530 this facility is not a Title V Facility.

**II. Applicable Rules**

Rule 2201	New and Modified Stationary Source Review Rule (4/21/11)
Rule 2520	Federally Mandated Operating Permits (6/21/01)
Rule 2530	Federally Enforceable Potential to Emit (12/18/08)
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)
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 1887 N. Mooney Blvd. in Tulare, CA. The equipment is not located within 1,000 feet of the outer boundary of a K-12 school. Therefore, the public notification requirement of California Health and Safety Code 42301.6 is not applicable to this project.

### **IV. Process Description**

Franzia Winery LLC operates a wine fermentation and storage facility. Distilled spirits, typically called high-proof are also produced at the facility and are stored for purposes of supplementing the ethanol content of produced wines or for export.

### **V. Equipment Listing**

#### Pre-Project Equipment Description:

S-1201-46-0: 42,330 GALLON STEEL WINE STORAGE AND WHITE WINE FERMENTATION TANK (TANK #99) WITH PRESSURE/VACUUM VALVE AND INSULATION

S-1201-56-0: 25,430 GALLON STEEL WINE STORAGE AND WHITE WINE FERMENTATION TANK (TANK #109) WITH PRESSURE/VACUUM VALVE AND INSULATION

#### Proposed Modification:

S-1201-46-1: MODIFICATION OF 42,330 GALLON STEEL WINE STORAGE AND WHITE WINE FERMENTATION TANK (TANK #99) WITH PRESSURE/VACUUM VALVE AND INSULATION: CONVERT TO DEDICATED DISTILLED SPIRITS STORAGE

S-1201-56-1: MODIFICATION OF 25,430 GALLON STEEL WINE STORAGE AND WHITE WINE FERMENTATION TANK (TANK #109) WITH PRESSURE/VACUUM VALVE AND INSULATION: CONVERT TO DEDICATED DISTILLED SPIRITS STORAGE

#### Post Project Equipment Description:

S-1201-46-0: 42,330 GALLON STEEL DISTILLED SPIRITS STORAGE TANK (TANK #99) WITH PRESSURE/VACUUM VALVE AND INSULATION

S-1201-56-0: 25,430 GALLON STEEL DISTILLED SPIRITS STORAGE TANK (TANK #109) WITH PRESSURE/VACUUM VALVE AND INSULATION

## VI. Emission Control Technology Evaluation

Emissions from the distilled spirits storage tanks are controlled by operating with a pressure/vacuum valve and insulation on the tank. The combination of insulation and pressure/vacuum valve serves to minimize VOC emissions which might result from tank breathing losses. The valve will not let vapor escape from the tank or air to enter the tank until the tank pressure is within 10% of the maximum allowable pressure or vacuum for the tank. Insulation minimizes heating of the tank due to ambient conditions and sunlight.

## VII. General Calculations

### A. Assumptions

- The maximum operating schedule for this facility is 24 hours/day and 365 days/year.
- Daily breathing losses are assumed to be negligible from the storage operations since all storage tank emissions units are insulated and equipped with a pressure/vacuum relief valve.

#### Pre-Project:

- The maximum ethanol content of the white wine stored in each tank will be set at a worst case of 14% (per applicant).
- White wine fermentation process takes longer than a day (10 to 14 days). Therefore, maximum one turnover per day will be used. The maximum daily white wine throughput is 42,330 gallons for unit S-1201-46, and 25,430 gallons for unit S-1201-56. (worst case assumption)
- Per applicant the retention time for white wine at the facility is 50 days. Therefore the facility can have a maximum of 7 turnovers per year. Based on 7 turnovers per year. The maximum annual white wine throughput is 296,310 gallons for unit S-1201-46, and 178,010 gallons for unit S-1201-56. (worst case assumption)

#### Post Project

- The maximum ethanol content of the distilled spirits stored in each tank will be set at a worst case of 98% (per applicant).
- The maximum daily distilled spirits throughput is 21,000 gallons for unit S-1201-46, and 14,000 gallons for unit S-1201-56. (Per Applicant).
- The maximum annual distilled spirits throughput is 500,000 gallons for unit S-1201-46, and 150,000 gallons for unit S-1201-56. (Per Applicant).

### B. Emission Factors

#### Pre-Project Emission Factors

The required emission factors for wine fermentation and storage operations are taken from District FYI-114, *Estimating VOC Emissions from Winery Tanks*.

White Wine Fermentation:

Daily: 1.62 lb-VOC/day per 1000 gallons tank capacity  
Annual: 2.5 lb-VOC/1000 gallons annual throughput

Wine Storage @ 14% Ethanol:

Daily: 0.143 lb-VOC/1000 gallons daily throughput  
Annual: 0.273 lb-VOC/1000 gallons annual throughput

Post Project Emission Factors

Since both tanks are insulated, equipped with pressure vacuum valves and operate at ambient temperature, the tabular emission factor of FYI-114 for 98% ethanol is applicable. Per FYI-114 for tanks in the southern region of the District holding spirits with 98% ethanol content:

Daily Emission Factor = 1.409 lb-VOC/1000 gallons throughput

Annual Emission Factor = 0.786 lb-VOC/1000 gallons throughput

**C. Calculations**

**1. Pre-Project Potential to Emit (PE1)**

S-1201-46-0:

*Fermentation Operations:*

Daily PE<sub>1 Fermentation</sub> = Emission Factor x Tank Volume  
= 1.62 lb-VOC/day per 1000 gallons x 42,330 gallons  
= 68.6 lb-VOC/day

Annual PE<sub>1 Fermentation</sub> = Emission Factor x Throughput  
= 2.5 lb-VOC/1000 gallons x 296,310 gallons/year  
= 741 lb-VOC/year

*Storage Operation:*

PE<sub>1 Storage</sub> = Emission Factor x Throughput

Daily PE<sub>1 Storage</sub> = 0.143 lb-VOC/1000 gallons x 42,330 gallons/day  
= 6.1 lb-VOC/day

$$\begin{aligned}\text{Annual PE}_{1 \text{ Storage}} &= 0.273 \text{ lb-VOC/1000 gallons} \times 296,310 \text{ gallons/year} \\ &= 296 \text{ lb-VOC/year}\end{aligned}$$

*Total:*

$$\text{PE}_1 = \text{PE}_{1 \text{ Fermentation}} + \text{PE}_{1 \text{ Storage}}$$

$$\text{Daily PE}_1 = 68.6 \text{ lb-VOC/day} + 6.1 \text{ lb-VOC/day} = \mathbf{74.7 \text{ lb-VOC/day}}$$

$$\text{Annual PE}_1 = 741 \text{ lb-VOC/year} + 296 \text{ lb-VOC/year} = \mathbf{1,037 \text{ lb-VOC/year}}$$

S-1201-56-0:

*Fermentation Operations:*

$$\begin{aligned}\text{Daily PE}_{1 \text{ Fermentation}} &= \text{Emission Factor} \times \text{Tank Volume} \\ &= 1.62 \text{ lb-VOC/day per 1000 gallons} \times 25,430 \text{ gallons} \\ &= 41.2 \text{ lb-VOC/day}\end{aligned}$$

$$\begin{aligned}\text{Annual PE}_{1 \text{ Fermentation}} &= \text{Emission Factor} \times \text{Throughput} \\ &= 2.5 \text{ lb-VOC/1000 gallons} \times 178,010 \text{ gallons/year} \\ &= 445 \text{ lb-VOC/year}\end{aligned}$$

*Storage Operation:*

$$\text{PE}_{1 \text{ Storage}} = \text{Emission Factor} \times \text{Throughput}$$

$$\begin{aligned}\text{Daily PE}_{1 \text{ Storage}} &= 0.143 \text{ lb-VOC/1000 gallons} \times 25,430 \text{ gallons/day} \\ &= 3.6 \text{ lb-VOC/day}\end{aligned}$$

$$\begin{aligned}\text{Annual PE}_{1 \text{ Storage}} &= 0.273 \text{ lb-VOC/1000 gallons} \times 178,010 \text{ gallons/year} \\ &= 49 \text{ lb-VOC/year}\end{aligned}$$

*Total:*

$$\text{PE}_1 = \text{PE}_{1 \text{ Fermentation}} + \text{PE}_{1 \text{ Storage}}$$

$$\text{Daily PE}_1 = 41.2 \text{ lb-VOC/day} + 3.6 \text{ lb-VOC/day} = \mathbf{44.8 \text{ lb-VOC/day}}$$

$$\text{Annual PE}_1 = 445 \text{ lb-VOC/year} + 49 \text{ lb-VOC/year} = \mathbf{494 \text{ lb-VOC/year}}$$

**2. Post Project Potential to Emit (PE2)**

S-1201-46-1:

PE<sub>2</sub> = Emission Factor x Throughput

PE<sub>2</sub> = 1.409 lb-VOC/1000 gallons x 21,000 gallons/day  
= **29.6 lb-VOC/day**

PE<sub>2</sub> = 0.786 lb-VOC/1000 gallons x 500,000 gallons/year  
= **393 lb-VOC/year**

S-1201-56-1:

PE<sub>2</sub> = Emission Factor x Throughput

PE<sub>2</sub> = 1.409 lb-VOC/1000 gallons x 14,000 gallons/day  
= **19.8 lb-VOC/day**

PE<sub>2</sub> = 0.786 lb-VOC/1000 gallons x 150,000 gallons/year  
= **118 lb-VOC/year**

**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.

SSPE1 calculations for units -3-0 through -63-0 were taken from project S-1074245. Emissions for unit -64 were taken from project S-1091639.

<b>SSPE1 (lb/year)</b>					
<b>Permit Unit</b>	<b>NO<sub>x</sub></b>	<b>SO<sub>x</sub></b>	<b>PM<sub>10</sub></b>	<b>CO</b>	<b>VOC</b>
S-1201-3-0 through -63-0	0	0	0	0	46,092
S-1201-64-0	0	0	0	0	99,575
<b>SSPE1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>145,667</b>

**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.

SSPE2 (lb/year)					
Permit Unit	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	CO	VOC
S-1201-3-0 through -45-0, 47-0 through -55-0, and -57-0 through -63-0	0	0	0	0	44,561
S-1201-46-1	0	0	0	0	393
S-1201-56-1	0	0	0	0	118
S-1201-64-0	0	0	0	0	99,575
SSPE2	0	0	0	0	144,647

## 5. 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. However, for the purposes of determining major source status, the SSPE2 shall not include 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.”

Major Source Determination (lb/year)					
	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	CO	VOC
SSPE1	0	0	0	0	145,667
SSPE2	0	0	0	0	144,647
Major Source Threshold	20,000	140,000	140,000	200,000	20,000
Major Source?	No	No	No	No	Yes

As seen in the table above, the facility is an existing Major Source and is not becoming a Major Source as a result of this project.

## 6. Baseline Emissions (BE)

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

Pursuant to 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.

**BE VOC**

Pursuant to Rule 2201, Section 3.12, a Clean Emissions Unit is defined as an emissions unit that is "equipped with an emissions control technology with a minimum control efficiency of at least 95% or is equipped with emission control technology that meets the requirements for achieved-in-practice BACT as accepted by the APCO during the five years immediately prior to the submission of the complete application.

All existing tanks in this project meet the District's current achieved-in-practice BACT for storage tanks by being equipped with a PV valve. Therefore all existing tank emission units are *Clean Emissions Units* pursuant to District Rule 2201 and BE = PE1.

Tank	BE (lb-VOC/yr)
S-1201-46-1	1,037
S-1201-56-1	494
Total	1,531

**7. SB 288 Major Modification**

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

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

SB 288 Major Modification Thresholds			
Pollutant	Project PE2 (lb/year)	Threshold (lb/year)	SB 288 Major Modification Calculation Required?
VOC	511	50,000	No

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

**8. Federal Major Modification**

District Rule 2201, Section 3.17 states that SB 288 major modifications are also federal major modifications unless they qualify for a "Less-Than-Significant Emissions Increase" exclusion.

A Less-Than-Significant Emissions Increase exclusion is for an emissions increase for the project, or a Net Emissions Increase for the project (as defined in 40 CFR 51.165

(a)(2)(ii)(B) through (D), and (F)), that is not significant for a given regulated NSR pollutant, and therefore is not a federal major modification for that pollutant.

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

<b>Significance Threshold (lb/year)</b>	
Pollutant	Threshold (lb/year)
VOC	0
NO <sub>x</sub>	0
PM <sub>10</sub>	30,000
SO <sub>x</sub>	80,000

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

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 existing emissions units, the increase in emissions is calculated as follows.

$$\text{Emission Increase} = \text{PAE} - \text{BAE}$$

Where: PAE = Projected Actual Emissions, and  
BAE = Baseline Actual Emissions

If there is no increase in design capacity or potential to emit, the PAE is equal to the annual emission rate at which the unit is projected to emit in any one year, selected by the operator, within 5 years after the unit resumes normal operation.

The BAE is calculated based on historical emissions and operating records for any 24 month period, selected by the operator, within the previous 10 year period. The BAE must be adjusted to exclude any non-compliant operation emissions and emissions that are no longer allowed due to lower applicable emission limits that were in effect when this application was deemed complete.

The applicant has provided the required historical and projected operation data (see Appendix C).

The project's combined total emission increases are calculated in Appendix C and compared to the Federal Major Modification Thresholds in the following table.

Federal Major Modification Thresholds for Emission Increases			
Pollutant	Total Emissions Increases (lb/yr)	Thresholds (lb/yr)	Federal Major Modification?
VOC*	237	0	Yes

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

Since there is an increase in VOC emissions, this project constitutes a Federal Major Modification, and no further analysis is required.

## 9. Quarterly Net Emissions Change (QNEC)

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

## VIII. Compliance

### Rule 2201 New and Modified Stationary Source Review Rule

#### A. Best Available Control Technology (BACT)

##### 1. BACT Applicability

BACT requirements are triggered on a pollutant-by-pollutant basis and on an emissions unit-by-emissions unit basis. 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**

Storing distilled spirits is a different process than wine fermentation and storage. Therefore these tanks will be considered “new” emission units for BACT purposes and classified as dedicated distilled spirit storage tanks.

As seen in Section VII.C.2 above, the spirits storage tanks each have a PE greater than 2 lb/day for VOC. Therefore, BACT is triggered by each unit for VOC.

**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 Section VII.C.7 above, this project does constitute a Federal Major Modification. Therefore BACT is triggered for VOC.

**2. BACT Guideline**

BACT Guideline 5.4.15, applies to Distilled Spirits Storage (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 with Pressure Vacuum Relief Valve (PVRV) set within 10% of the maximum allowable working pressure of the tank, and “gas-tight” tank operation

Each of the distilled spirits storage tanks is insulated, equipped with a PVRV set to within 10% of the maximum allowable working pressure of the tank; and operates in a gas-tight condition. Therefore, the proposed distilled spirits storage tanks meet the BACT requirements for this class and category of operation.

The following conditions will be included on the ATC's to ensure continued compliance with the BACT requirements:

- 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 Rule 2201]
- 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 Rule 2201] Y

**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.

The SSPE2 is compared to the offset thresholds in the following table.

<b>Offset Determination (lb/year)</b>					
	<b>NO<sub>x</sub></b>	<b>SO<sub>x</sub></b>	<b>PM<sub>10</sub></b>	<b>CO</b>	<b>VOC</b>
<b>SSPE2</b>	0	0	0	0	144,647
<b>Offset Thresholds</b>	20,000	54,750	29,200	200,000	20,000
<b>Offsets triggered?</b>	No	No	No	No	Yes

**2. Quantity of Offsets Required**

As seen above, the SSPE2 is greater than the offset thresholds for VOC only. 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) =  $(\sum[PE2 - BE] + ICCE) \times DOR$ , 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; therefore offsets for each unit can be determined as follows:

Offsets Required (lb/year) =  $([PE2 - BE]_{S-1201-46-1} + [PE2 - BE]_{S-1201-46-1} + ICCE) \times DOR$

PE2 (VOC) <sub>S-1201-46-1</sub> = 393 lb/year

BE (VOC) <sub>S-1201-46-1</sub> = 1,037 lb/year

PE2 (VOC) <sub>S-1201-45-1</sub> = 118 lb/year

BE (VOC) <sub>S-1201-45-1</sub> = 494 lb/year

ICCE = 0 lb/year

Offsets Required (lb/year) =  $([393 - 1,037] + [118 - 494] + 0) \times DOR$   
= 0 lb-VOC/year

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, and/or
- d. Any project with an SSIPE of greater than 20,000 lb/year for any pollutant.

**a. New Major Sources, Federal Major Modifications, and 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 VII.C.7, this project is not an SB 288 but is a Federal Major Modification for VOC. Therefore, public noticing for SB 288 or Federal Major Modification purposes is required.

**b. PE > 100 lb/day**

Applications which include a new emissions unit with a PE greater than 100 pounds during any one day for any pollutant will trigger public noticing requirements. As seen in Section VII.C.2 above, this project does not include a new emissions unit which has daily emissions greater than 100 lb/day for any pollutant, therefore public noticing for PE > 100 lb/day purposes is not required.

**c. Offset Threshold**

The 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?
NO <sub>x</sub>	0	0	20,000 lb/year	No
SO <sub>x</sub>	0	0	54,750 lb/year	No
PM <sub>10</sub>	0	0	29,200 lb/year	No
CO	0	0	200,000 lb/year	No
VOC	145,667	144,647	20,000 lb/year	No

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

**d. SSIPE > 20,000 lb/year**

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

<b>SSIPE Public Notice Thresholds</b>					
<b>Pollutant</b>	<b>SSPE2 (lb/year)</b>	<b>SSPE1 (lb/year)</b>	<b>SSIPE (lb/year)</b>	<b>SSIPE Public Notice Threshold</b>	<b>Public Notice Required?</b>
NO <sub>x</sub>	0	0	0	20,000 lb/year	No
SO <sub>x</sub>	0	0	0	20,000 lb/year	No
PM <sub>10</sub>	0	0	0	20,000 lb/year	No
CO	0	0	0	20,000 lb/year	No
VOC	144,647	145,667	-1,020	20,000 lb/year	No

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

## 2. Public Notice Action

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

### D. Daily Emission Limits (DELs)

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

#### **S-1201-46-1 Proposed Rule 2201 (DEL) Conditions:**

- Tank throughput shall not exceed either of the following limits: 21,000 gallons in any one day or 500,000 gallons per year. [District Rule 2201]
- Ethanol content of the distilled spirits stored in this tank shall not exceed 98%. [District Rule 2201]

#### **S-1201-56-1 Proposed Rule 2201 (DEL) Conditions:**

- Tank throughput shall not exceed either of the following limits: 14,000 gallons in any one day or 150,000 gallons per year. [District Rule 2201]
- Ethanol content of the distilled spirits stored in this tank shall not exceed 98% by volume. [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 condition(s) are listed on the permit to operate:

- Daily throughput records, including records of filling and emptying operations, the dates of such operations, the maximum temperature of the stored distilled spirits, the volume percent ethanol in the batch, and the volume of spirits transferred, shall be maintained. [District Rule 2201]
- All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rule 1070]

### **4. Reporting**

No reporting is required to demonstrate compliance with Rule 2201.

## **F. Ambient Air Quality Analysis (AAQA)**

Section 4.14.1 of this Rule requires that an ambient air quality analysis (AAQA) be conducted for the purpose of determining whether a new or modified Stationary Source will cause or make worse a violation of an air quality standard. However, since this project involves only VOC and no ambient air quality standard exists for VOC, an AAQA is not required for this project.

## **G. Compliance Certification**

Section 4.15.2 of this Rule requires the owner of a new Major Source or a source undergoing a Title I Modification to demonstrate to the satisfaction of the District that all other Major Sources owned by such person and operating in California are in compliance or are on a schedule for compliance with all applicable emission limitations and standards. As discussed in Section VIII above, this facility is a new major source and this project does constitute a Title I modification, therefore this requirement is applicable. Franzia-Tulare compliance certification is included in Appendix G.

## **H. Alternate Siting Analysis**

The current project occurs at an existing facility. The applicant proposes to convert two wine fermentation and storage tanks to distilled spirits storage tanks.

Since the project will allow distilled spirits to be stored in existing tanks at the existing site, the existing site will result in the least possible impact from the project. Alternative sites would involve the redevelopment of the site to accommodate new or relocated tanks and construction of various support structures, and would therefore result in a much greater impact.

### **Rule 2520 Federally Mandated Operating Permits**

Since this facility's emissions exceed the major source thresholds of District Rule 2201, this facility is a major source. However, this facility has elected to comply with Rule 2530, exempts it from the requirements of Rule 2520.

### **Rule 2530 Federally Enforceable Potential to Emit**

The purpose of this rule is to restrict the emissions of a stationary source so that the source may elect to be exempt from the requirements of Rule 2520. Pursuant to Rule 2530, since this facility has elected exemption from the requirements of Rule 2520 by ensuring actual emissions from the stationary source in every 12-month periods to not exceed the following: ½ the major source thresholds for NO<sub>x</sub>, VOCs, CO, and PM<sub>10</sub>; 50 tons per year SO<sub>2</sub>; 5 tons per year of a single HAP; 12.5 tons per year of any combination of HAPs; 50 percent of any lesser threshold for a single HAP as the EPA may establish by rule; and 50 percent of the major source threshold for any other regulated air pollutant not listed in Rule 2530.

### **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 distilled spirits storage tank operations.

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

This rule incorporates NESHAPs from Part 61, Chapter I, Subchapter C, Title 40, CFR and the NESHAPs from Part 63, Chapter I, Subchapter C, Title 40, CFR; and applies to all sources of hazardous air pollution listed in 40 CFR Part 61 or 40 CFR Part 63. However, no subparts of 40 CFR Part 61 or 40 CFR Part 63 apply to distilled spirits storage tank 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. Therefore, compliance with this rule is expected.

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

### **Rule 4623 Storage of Organic Liquids**

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

However, Section 4.1.4 provides an exemption for tanks used to store fermentation products, byproducts or spirits. The tanks in this project are storage tanks used to store distilled spirits.

Therefore, the requirements of this rule are not applicable to this project.

### **District Rule 4694 Wine Fermentation and Storage Tanks**

The purpose of this rule is to reduce emissions of volatile organic compounds (VOC) from the fermentation and bulk storage of wine, or achieve equivalent reductions from alternative emission sources. This rule is applicable to any winery fermenting wine and/or storing wine in bulk containers.

The storage tanks in this project store distilled spirits. Therefore, the requirements of this rule are not applicable to this project.

### **California Health & Safety Code 42301.6 (School Notice)**

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

### **California Environmental Quality Act (CEQA)**

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

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

**Greenhouse Gas (GHG) Significance Determination**

It is determined that no other agency has or will prepare an environmental review document for the project. Thus the District is the Lead Agency for this project. The District's has determined that distilled spirits storage tanks will not produce any project specific greenhouse gas emissions since, greenhouse gas emissions are only emitted during wine fermentation which is no longer conducted in these tanks. The District therefore concludes that the project would have a less than cumulatively significant impact on global climate change.

**District CEQA Findings**

The District is the Lead Agency for this project because there is no other agency with broader statutory authority over this project. The District performed an Engineering Evaluation (this document) for the proposed project and determined that the activity will occur at an existing facility and the project involves negligible expansion of the existing use. Furthermore, the District determined that the activity will not have a significant effect on the environment. The District finds that the activity is categorically exempt from the provisions of CEQA pursuant to CEQA Guideline § 15031 (Existing Facilities), and finds that the project is exempt per the general rule that CEQA applies only to projects which have the potential for causing a significant effect on the environment (CEQA Guidelines §15061(b)(3)).

**IX. Recommendation**

Compliance with all applicable rules and regulations is expected. Issue ATC S-1201-46-1 and -56-1 subject to the permit conditions on the attached draft ATC in **Appendix A**.

**X. Billing Information**

<b>Annual Permit Fees</b>			
<b>Permit Number</b>	<b>Fee Schedule</b>	<b>Fee Description</b>	<b>Annual Fee</b>
S-1201-46-1	3020-05-C	42,350 gallons	\$135.00
S-1201-56-1	3020-05-C	24,430 gallons	\$135.00

**Appendixes**

- A: Draft ATCs
- B: Current PTOs
- C: Net Emissions Increase
- D: BACT Guideline
- E: BACT Analysis
- F: Quarterly Net Emissions Change
- G: Compliance Certification

- C: Net Emissions Increase
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**APPENDIX A**  
**Draft ATCs**

San Joaquin Valley  
Air Pollution Control District

**AUTHORITY TO CONSTRUCT**

ISSUANCE DATE: DRAFT  
**DRAFT**

PERMIT NO: S-1201-46-1

LEGAL OWNER OR OPERATOR: FRANZIA WINERY LLC  
MAILING ADDRESS: 17000 E HIGHWAY 120  
RIPON, CA 95366

LOCATION: 1887 N MOONEY BLVD  
TULARE, CA 93274

**EQUIPMENT DESCRIPTION:**

MODIFICATION OF 42,330 GALLON STEEL WINE STORAGE AND WHITE WINE FERMENTATION TANK (TANK #99)  
WITH PRESSURE/VACUUM VALVE AND INSULATION: CONVERT TO DEDICATED DISTILLED SPIRITS STORAGE

**CONDITIONS**

1. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rule 2201]
2. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rule 2201]
3. Tank throughput shall not exceed either of the following limits: 21,000 gallons in any one day or 500,000 gallons per year. [District Rule 2201]
4. Ethanol content of the distilled spirits stored in this tank shall not exceed 98%. [District Rule 2201]
5. Daily throughput records, including records of filling and emptying operations, the dates of such operations, the volume percent ethanol in the batch, and the volume of spirits transferred, shall be maintained. [District Rule 2201]
6. 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]

YOU **MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT.** This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director APCO

**DRAFT**

DAVID WARNER, Director of Permit Services  
S-1201-46-1 : Oct 2 2012 9:19AM - GONZALEV : Joint Inspection NOT Required

San Joaquin Valley  
Air Pollution Control District

**AUTHORITY TO CONSTRUCT**

ISSUANCE DATE: DRAFT  
**DRAFT**

PERMIT NO: S-1201-56-1

LEGAL OWNER OR OPERATOR: FRANZIA WINERY LLC  
MAILING ADDRESS: 17000 E HIGHWAY 120  
RIPON, CA 95366

LOCATION: 1887 N MOONEY BLVD  
TULARE, CA 93274

**EQUIPMENT DESCRIPTION:**

MODIFICATION OF 25,430 GALLON STEEL WINE STORAGE AND WHITE WINE FERMENTATION TANK (TANK #109)  
WITH PRESSURE/VACUUM VALVE AND INSULATION: CONVERT TO DEDICATED DISTILLED SPIRITS STORAGE

**CONDITIONS**

1. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rule 2201]
2. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rule 2201]
3. Tank throughput shall not exceed either of the following limits: 14,000 gallons in any one day or 150,000 gallons per year. [District Rule 2201]
4. Ethanol content of the distilled spirits stored in this tank shall not exceed 98%. [District Rule 2201]
5. Daily throughput records, including records of filling and emptying operations, the dates of such operations, the volume percent ethanol in the batch, and the volume of spirits transferred, shall be maintained. [District Rule 2201]
6. 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]

YOU **MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT.** This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director, APCO

**DRAFT**

DAVID WARNER, Director of Permit Services

S-1201-56-1 : Oct 2 2012 9:18AM -- GONZALEV : Joint Inspection NOT Required

**APPENDIX B**  
**Current PTOs**

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-1201-46-0

**EXPIRATION DATE:** 08/31/2017

**EQUIPMENT DESCRIPTION:**

42,330 GALLON STEEL WINE STORAGE AND WHITE WINE FERMENTATION TANK (TANK #99) WITH PRESSURE/VACUUM VALVE AND INSULATION

## PERMIT UNIT REQUIREMENTS

---

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. Except when used for fermentation of wine, the wine storage tank shall be equipped and operated with a pressure-vacuum relief valve, set to operate within 10% of the maximum allowable working pressure of the tank and permanently labeled with the operating pressure settings. [District Rule 4694]
3. Except when used for fermentation of wine, the pressure-vacuum relief valve shall be installed and operated in accordance with the manufacturer's instructions. [District Rule 4694]
4. Except when used for fermentation of wine, the pressure-vacuum relief valve and wine storage tank shall remain in a gas-tight condition except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rule 4694]
5. The temperature of each batch of wine placed, stored, or held in the tank shall not exceed 75 degrees F after 60 days following completion of fermentation. [District Rule 4694]
6. Except when used for fermentation of wine, the maximum temperature of each batch of wine placed, stored, or held in the tank shall be recorded weekly. [District Rule 4694]
7. Except when used for fermentation of wine, records of filling and emptying operations shall be kept for this tank including the date of the operation, a unique identifier for each batch, the volume percent ethanol in the batch and the volume of wine transferred. [District Rule 4694]
8. Except when used for fermentation of wine, the wine batch identifier and volume processed or stored in the tank shall be recorded weekly. [District Rule 4694]
9. The following information shall be recorded for each fermentation batch processed in this tank: 1) wine type stated as either red or white wine, 2) total gallons of must fermented, 3) the uncontrolled fermentation emissions from the batch (calculated per the emission factors given in District Rule 4694). [District Rule 4694]
10. 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 4694]

These terms and conditions are part of the Facility-wide Permit to Operate.

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-1201-56-0

**EXPIRATION DATE:** 08/31/2017

**EQUIPMENT DESCRIPTION:**

25,430 GALLON STEEL WINE STORAGE AND WHITE WINE FERMENTATION TANK (TANK #109) WITH PRESSURE/VACUUM VALVE AND INSULATION

## PERMIT UNIT REQUIREMENTS

---

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. Except when used for fermentation of wine, the wine storage tank shall be equipped and operated with a pressure-vacuum relief valve, set to operate within 10% of the maximum allowable working pressure of the tank and permanently labeled with the operating pressure settings. [District Rule 4694]
3. Except when used for fermentation of wine, the pressure-vacuum relief valve shall be installed and operated in accordance with the manufacturer's instructions. [District Rule 4694]
4. Except when used for fermentation of wine, the pressure-vacuum relief valve and wine storage tank shall remain in a gas-tight condition except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rule 4694]
5. The temperature of each batch of wine placed, stored, or held in the tank shall not exceed 75 degrees F after 60 days following completion of fermentation. [District Rule 4694]
6. Except when used for fermentation of wine, the maximum temperature of each batch of wine placed, stored, or held in the tank shall be recorded weekly. [District Rule 4694]
7. Except when used for fermentation of wine, records of filling and emptying operations shall be kept for this tank including the date of the operation, a unique identifier for each batch, the volume percent ethanol in the batch and the volume of wine transferred. [District Rule 4694]
8. Except when used for fermentation of wine, the wine batch identifier and volume processed or stored in the tank shall be recorded weekly. [District Rule 4694]
9. The following information shall be recorded for each fermentation batch processed in this tank: 1) wine type stated as either red or white wine, 2) total gallons of must fermented, 3) the uncontrolled fermentation emissions from the batch (calculated per the emission factors given in District Rule 4694). [District Rule 4694]
10. 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 4694]

These terms and conditions are part of the Facility-wide Permit to Operate.

**APPENDIX C**  
**Net Emissions Increase**

For existing emissions units, the increase in emissions is calculated as follows.

$$\text{Net Emission Increase (NEI)} = \text{PAE} - \text{BAE}$$

Where: PAE = Projected Actual Emissions, and  
BAE = Baseline Actual Emissions

#### Baseline Actual Emissions (BAE)

The BAE is calculated based on historical emissions and operating records for any 24 month period, selected by the operator, within the previous 10 year period. The BAE must be adjusted to exclude any non-compliant operation emissions and emissions that are no longer allowed due to lower applicable emission limits that were in effect when this application was deemed complete.

The actual tank throughput values were submitted by the applicant. For the years of 2007 and 2008 tanks S-1201-46 and -90 had a throughput of 200,142 gallons. Therefore the average annual throughput is 100,071 gallons per year. Per applicant the average ethanol content during the baseline period is 11.78%.

The emission factors for wine fermentation and storage operations are taken from District FYI-114, *Estimating VOC Emissions from Winery Tanks*.

White Wine Fermentation is 2.5 lb-VOC/1000 gallons annual throughput

Wine Storage @ 12% Ethanol is 0.239 lb-VOC/1000 gallons annual throughput

The BAE is calculated as follows,

#### *Fermentation Operations:*

$$\begin{aligned} \text{BAE}_{\text{Fermentation}} &= \text{Emission Factor} \times \text{Throughput} \\ &= 2.5 \text{ lb-VOC/1000 gallons} \times 100,071 \text{ gallons/year} \\ &= 250 \text{ lb-VOC/year} \end{aligned}$$

#### *Storage Operation:*

$$\begin{aligned} \text{BAE}_{\text{Storage}} &= \text{Emission Factor} \times \text{Throughput} \\ &= 0.239 \text{ lb-VOC/1000 gallons} \times 100,071 \text{ gallons/year} \\ &= 24 \text{ lb-VOC/year} \end{aligned}$$

#### *Total:*

$$\text{BAE} = \text{BAE}_{\text{Fermentation}} + \text{BAE}_{\text{Storage}}$$

$$\text{BAE} = 250 \text{ lb-VOC/year} + 24 \text{ lb-VOC/year} = \mathbf{274 \text{ lb-VOC/year}}$$

Potential to Emit (PE)

As shown in Section VII of the Engineering Evaluation, the Potential to Emit for tanks S-1201-46 and -90 is 511 lb-VOC/year.

Net Emissions Increase (NEI)

NEI is calculated as follows:

$$\text{NEI} = \text{PE2} - \text{BAE}$$

<b>Net Emissions Increase (NEI)</b>			
<b>Pollutant</b>	<b>PE2 (lb/year)</b>	<b>BAE (lb/year)</b>	<b>NEI (lb/year)</b>
VOC	511	274	237

**APPENDIX D**  
**BACT Guideline**

San Joaquin Valley  
Unified Air Pollution Control District

**Best Available Control Technology (BACT) Guideline 5.4.15\***

Last Update 11/2/2011

**Distilled Spirits Storage Tank**

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
VOC	Insulation or Equivalent**, Pressure Vacuum Relief Valve (PVRV) set within 10% of the maximum allowable working pressure of the tank; "gas-tight" tank operation	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 adsorption or equivalent (90% control); 4) Refrigerated Storage (70% control)	

\*\* Tank 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.

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**

San Joaquin Valley  
Unified Air Pollution Control District

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

Last Update 10/6/2009

**Wine Storage Tank**

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

\*\*Tanks made of heat-conducting materials such as stainless steel may be insulated or stored indoors (in a completely enclosed building, except for vents, doors and other essential openings) to limit exposure 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**  
**BACT Analysis**

# Top-Down BACT Analysis for VOC emissions

The following VOC emission control technologies are listed in the draft BACT guideline 5.4.15, for Distilled Spirits Storage Tank (prepared under engineering evaluation N-1113407):

## Step 1 - Identify all control technologies

BACT Guideline 5.4.15, *Distilled Spirits Storage Tank*, lists the following control technologies,

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

## Step 2 - Eliminate technologically infeasible options

None of the above listed technologies are technologically infeasible.

## Step 3 - Rank remaining options by control effectiveness

Rank by Control Effectiveness			
Rank	Option	Control	Overall Capture & Control Efficiency
1	2	Capture of VOCs & thermal or catalytic oxidation, or equivalent	98%
2	3	Capture of VOCs & carbon adsorption, or equivalent	95%
3	4	Capture of VOCs & absorption, or equivalent	90%
4	5	Refrigerated Storage	70%
5	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	0 %

## Step 4 - Cost Effectiveness Analysis

A cost effectiveness analysis is performed for each control technology which is more effective than achieved-in-practice BACT. The cost-effectiveness analysis will be performed based on the most cost effective approach by installing a common control device for both distilled spirit tanks evaluated in this project.

**Option 2- Capture of VOCs & thermal or catalytic oxidation, or equivalent (98% control);**  
**or Option 3 - Capture of VOCs & carbon adsorption, or equivalent (95% control);**  
**or Option 4 - Capture of VOCs & absorption, or equivalent (90% control)**

**Collection System Capital Investment (based on ductwork):**

A common feature of all technically feasible options (except tank refrigeration) is that they require installation of a collection system for delivering the VOCs from the tanks to the common control device. This analysis ignores additional major costs for equipment sterilization systems for ductwork and control device, instrumentation and control systems for isolation of individual tanks in the battery, and site specific factors due to limited plot space (known to be a significant factor at all wineries). Should all these additional cost factors be included, the calculated cost effectiveness would be substantially higher than indicated below.

Collection system to consist of:

- The collection system consists of stainless steel place ductwork (stainless steel is required due to food grade product status) with isolation valving, connecting two tanks to a common manifold system which ducts the combined vent to the common control device. The cost of dampers and isolation valving, installed in the ductwork, will be included in the cost estimate.
- A minimum duct size is established at six inches diameter at each tank to provide adequate strength for spanning between supports. The main header is twelve inches diameter to handle the potential for simultaneous venting.
- A minimum estimated length 150 feet (based on a two-tank layout, 10 feet spacing between each tank, header line in the middle (3'9" + 3'9" + 16'2" + 16'2" + 10' ≈ 50'), and control device located within 100 feet of tank array.

**Capital Cost Ductwork**

6" Stainless Steel Duct: 50 linear feet

12" Stainless Steel Duct: 100 linear feet

A direct cost estimate for 12 inch diameter stainless steel ductwork, installed in a San Joaquin Valley winery, was taken from Fermenter VOC Emission Control Cost Estimate, prepared by Eichleay Engineering for the Wine Institute in conjunction with development of District Rule 4694. The estimate is based on 2<sup>nd</sup> quarter 2005 dollars, and includes fittings, miscellaneous duct supports and other materials plus field labor costs required to install the ductwork, but does not include other associated indirect costs such as construction management, engineering, owner's cost, contingency, etc.

Unit installed cost for 6 inch Stainless Steel ducting: \$61.30/linear foot<sup>1</sup>

Unit installed cost for 12 inch Stainless Steel ducting: \$143.80/linear foot<sup>1</sup>

Installed costs = (\$61.30 linear foot x 50 feet) + (\$143.80 linear foot x 100 feet) = \$17,445

Adjusting from 2005 dollars to 2012 dollars (multiply by 1.1925, 2.75% inflation/yr).

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<sup>1</sup> The cost information is taken from engineering evaluation N-1113407.

Installed costs = \$17,445 x 1.1925 = \$20,803

### Duct Valve Allowance

One of the major concerns of a manifold duct system is microorganisms spoiling the wine, and transferring from one tank to another. It is possible to completely ruin a tank of white wine if a few hundred gallons of red wine were back fed through the duct. It is necessary to design into the system a positive disconnect of the ducting system when the tanks are not being filled. There are a number of ways this can be done. In this case, an automatic butterfly valve with a physical spool to disconnect the tank from the duct will be utilized.

Unit installed cost for 6 inch butterfly valve = \$2,125/valve

Unit installed cost one foot removable spool = \$500/tank

Installed costs = (\$2,125/valve x 2 tanks) + (\$500/tank x 2 tanks) = \$5,250

### Clean-In-Place (CIP) System

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

An allowance of \$200,000 for a CIP system is included in the evaluation. This value is consistent with the data used in engineering evaluation N-1113407.

Installed costs = \$200,000

Total costs = Ductwork + Duct Valve + CIP System  
= \$20,803 + \$5,250 + \$200,000  
= \$226,053

Annualized Capital Investment = Initial Capital Investment x Amortization Factor

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

Therefore,

Annualized Capital Investment = \$226,053 x 0.163 = \$36,847

### Cost Effectiveness

The following cost analysis will only consider the cost of the capture system required in conjunction with the thermal oxidizer or carbon absorption or adsorption systems. By showing the capture system alone exceeds the threshold of cost effectiveness the cost of each control system does not need to be evaluated since that would only increase the annual cost for the entire control system.

For worst case scenario it will be assumed the control efficiency is 98% equivalent to the most efficient control system, the thermal oxidizer.

$$\begin{aligned}\text{Annual Emission Reduction} &= \text{Uncontrolled Emissions} \times 0.98 \\ &= 511 \text{ lb-VOC/year} \times 0.98 \\ &= 501 \text{ lb-VOC/year} \\ &= 0.25 \text{ tons-VOC/year}\end{aligned}$$

$$\begin{aligned}\text{Cost Effectiveness} &= \$36,847/\text{year} \div 0.25 \text{ tons-VOC/year} \\ &= \$147,388/\text{ton-VOC}\end{aligned}$$

The cost of VOC reductions considering the capture and control equipment costs alone is more than the threshold limit of \$17,500/ton. Therefore, the capture system in conjunction with the thermal oxidizer or carbon absorption or adsorption systems is not cost effective.

### **Option 5 - Refrigerated storage (70% control)**

#### **Design Basis**

- A common refrigeration system will be installed for these two tanks.
- The refrigeration system will be a packaged single-stage vapor-compression system.
- Minimum refrigeration capacity will allow cooling the proposed tanks from 75°F to 40°F.
- The liquid transfer rate is 100 GPM.

Based on a specific heat capacity of 1.0 Btu/lb-°F and cooling two large tanks alone from 75°F to 40°F, the capacity required for the refrigeration system would be:

$$\begin{aligned}\text{Refrigeration Capacity} &= 100 \text{ gal/min} \times 2 \text{ tanks} \times 8.34 \text{ lb/gal} \times 1.0 \text{ Btu/lb-}^\circ\text{F} \times (75^\circ\text{F} - 40^\circ\text{F}) \\ &\quad \times (60 \text{ min/hr}) \times (1 \text{ ton-hr refrigeration}/12,000 \text{ Btu})\end{aligned}$$

$$\begin{aligned}\text{Refrigeration Capacity} &= 291.9 \text{ tons} \\ &\approx 292 \text{ tons}\end{aligned}$$

#### **Capital Cost**

The EPA Air Pollution Control Manual, Section 3, Chapter 2, Figure 2.5, provides costs for single stage vapor compression systems up to 100 tons capacity at a condensation temperature of 40°F. Conservatively, using the purchase price for a 174 ton unit yields:

$$\text{Refrigeration System Cost} = \$201,739^2$$

This cost is in 1990 dollars; therefore, it is adjusted from 1990 dollars to 2012 dollars by conservatively assuming an average inflation rate of 2.75% as follows:

$$\text{Current Refrigeration System Cost} = \$201,739 \times 1.605 = \$323,791$$

<sup>2</sup> Cost is estimated using EPA's document EPA/452/B-02-001, Section 3.1, Chapter 2, Section 2.4, equation 2.26 on Page 2-18 for single stage refrigeration unit. This equation is valid up to a 174 tons refrigeration capacity. Cost (1990 dollars) =  $e^{0.0275 \times 40 + 0.627 \ln(174)}$  = \$201,739

Annualized Capital Investment = Initial Capital Investment x Amortization Factor

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

Therefore,

$$\text{Annualized Capital Investment} = \$323,791 \times 0.163 = \$52,778$$

To compare the cost and size of a 174 ton condenser to the subject 292 ton condenser, the six-tenths rule of thumb is used.

$$\text{Annualized Costs 292 ton} = \text{Annualized Costs 174 ton} \times \left( \frac{292 \text{ ton}}{174 \text{ ton}} \right)^{0.6}$$

$$\begin{aligned} \text{Annualized Costs 292 ton} &= \$52,788 \times (292 \div 174)^{0.6} \\ &= \$72,017/\text{year} \end{aligned}$$

$$\begin{aligned} \text{Annual Emission Reduction} &= \text{Uncontrolled Emissions} \times 0.70 \\ &= 511 \text{ lb-VOC/year} \times 0.70 \\ &= 358 \text{ lb-VOC/year} \\ &= 0.18 \text{ tons-VOC/year} \end{aligned}$$

$$\begin{aligned} \text{Cost of Reductions} &= \$72,017/\text{year} \div 0.18 \text{ tons-VOC/year} \\ &= \$400,094/\text{ton-VOC} \end{aligned}$$

The cost of VOC reductions, considering the equipment cost alone, is greater than the threshold limit of \$17,500/ton. Therefore, the refrigeration control system is not cost-effective for this installation.

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

Insulated tank, and Pressure Vacuum Relief Valve (PVRV) set within 10% of the maximum allowable working pressure of the tank, and "gas-tight" tank operation would be the BACT for this operation.

**APPENDIX F**  
**Quarterly Net Emissions Change (QNEC)**

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

QNEC = PE2 - PE1, where:

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

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

PE1 = Pre-Project Potential to Emit for each emissions unit, lb/qtr.

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

$$\begin{aligned}
 PE2_{\text{quarterly}} &= PE2_{\text{annual}} \div 4 \text{ quarters/year} \\
 &= 393 \text{ lb/year} \div 4 \text{ qtr/year} \\
 &= 98 \text{ lb VOC/qtr}
 \end{aligned}$$

$$\begin{aligned}
 PE1_{\text{quarterly}} &= PE1_{\text{annual}} \div 4 \text{ quarters/year} \\
 &= 1,037 \text{ lb/year} \div 4 \text{ qtr/year} \\
 &= 259 \text{ lb VOC/qtr}
 \end{aligned}$$

<b>S-1201-46-1: Quarterly NEC [QNEC]</b>			
	PE2 (lb/qtr)	PE1 (lb/qtr)	QNEC (lb/qtr)
NO <sub>x</sub>	0	0	0
SO <sub>x</sub>	0	0	0
PM <sub>10</sub>	0	0	0
CO	0	0	0
VOC	98	259	-161

<b>S-1201-56-1: Quarterly NEC [QNEC]</b>			
	PE2 (lb/qtr)	PE1 (lb/qtr)	QNEC (lb/qtr)
NO <sub>x</sub>	0	0	0
SO <sub>x</sub>	0	0	0
PM <sub>10</sub>	0	0	0
CO	0	0	0
VOC	30	124	-93

**APPENDIX G**  
**Compliance Certification**

8/27/2012

Ms. Vanesa Gonzalez  
San Joaquin Valley Air Pollution Control District  
1990 E Gettysburg Avenue  
Fresno CA 93726

**Subject: Compliance Statement for Franzia-Tulare S-1201**

Dear Ms. Gonzalez:

In accordance with Rule 2201, Section 4.15, "Additional Requirements for New Major Sources and Federal Major Modifications," **Franzia-Tulare** is pleased to provide this compliance statement regarding its proposed winery project **S-1114831**.

All major stationary sources in California owned or operated by **Franzia-Tulare**, or by any entity controlling, controlled by, or under common control with **Franzia-Tulare**, 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:

Facility #1: **Franzia-Tulare 1887 N. Mooney Blvd., Tulare, CA 93274**

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 certification.

Sincerely,

  
Gary Nakagawa, General Manager  
Franzia - Tulare