



AUG 13 2014

Ms. Christine Campbell Delicato Vineyards 12001 S. Hwy 99 Manteca, CA 95336

Re:

Proposed ATC / Certificate of Conformity (Significant Mod)

District Facility # N-266 Project # N-1140935

Dear Ms. Campbell:

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. The applicant proposes to install 8 wine storage tanks.

After addressing all comments made during the 30-day public notice and the 45day 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. Jim Swaney, Permit Services Manager, at (559) 230-5900.

Thank you for your cooperation in this matter.

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Director of Permit Services

Enclosures

CC:

Mike Tollstrup, CARB (w/enclosure) via email

CC:

Gerardo C. Rios, EPA (w/enclosure) via email

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Executive Director/Air Pollution Control Officer

San Joaquin Valley Air Pollution Control District

Authority to Construct Application Review

8 New Wine Storage Tanks

Facility Name: Delicato Vineyards Date: July 21, 2014

Mailing Address: 12001 S Hwy 99 Engineer: Jesse A. Garcia

Manteca, CA 95336 Lead Engineer: Joven Refuerzo

Contact Person: Christine Campbell

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Application #(s): N-266-776-0 through -783-0

Project #: N-1140935

Deemed Complete: June 1, 2014

I. Proposal

Delicato Vineyards has requested Authority to Construct (ATC) permits for the installation of eight new wine storage tanks; two 154,000 gallon (or equivalent) tanks and six 60,000 gallon (or equivalent) tanks. These tanks will be used strictly for wine storage.

On August 4, 2014, the applicant amended the original proposal to increase daily and annual emissions and establish a specific limiting condition (SLC) for the new tanks.

Delicato Vineyards received their Title V Permit. This modification can be classified as a Title V significant modification pursuant to Rule 2520, and can be processed with a Certificate of Conformity (COC). Since the facility has specifically requested that this project be processed in that manner, the 45-day EPA comment period will be satisfied prior to the issuance of the Authority to Construct. Delicato Vineyards must apply to administratively amend their Title V permit.

II. Applicable Rules

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Rule 2201	New and Modified Stationary Source Review Rule (4/21/11)
Rule 2410	Prevention of Significant Deterioration (6/16/11)
Rule 2520	Federally Mandated Operating Permits (6/21/01)
Rule 4001	New Source Performance Standards (4/14/99)
Rule 4002	National Emissions Standards for Hazardous Air Pollutants (5/20/04)
Rule 4102	Nuisance (12/17/92)
Rule 4623	Storage of Organic Liquids (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 12001 S Hwy 99 in Manteca, 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

Delicato Vineyards 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 approximately 10 to 14 percent by volume. Batch fermentation requires 3-5 days per batch for red wine and 1-2 weeks per batch for white wine. VOCs are emitted during the fermentation process along with the 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. Tanks can potentially operate in either: (1) a fermentation operation during which the tank is vented directly to the atmosphere to release the evolved CO₂ byproduct from the fermentation reaction; (2) a storage operation during which the tank is closed to minimize contact with air and refrigerated to preserve the wine; (3) or both fermentation and storage operations. Post-fermentation operations such as cold stabilization, racking, and filtration are conducted in the tanks, resulting in a number of inter-tank transfers during the period between the end of fermentation and bottling or bulk shipment. Storage operations are conducted year-round. VOC emissions occur primarily as a result of the inter-tank transfers which are necessitated by the post fermentation operations.

V. Equipment Listing

Pre-Project Equipment Description:

This facility currently has 677 red and white wine fermentation and storage tanks with a total capacity of 54,399,839 gallons¹.

Post-Project Equipment Description:

N-266-776-0:	154,000 GALLON (OR EQUIVALENT) WINE STORAGE TANK (TANK #1545)
	WITH PRESSURE/VACUUM VALVE AND INSULATION
N-266-777-0:	154,000 GALLON (OR EQUIVALENT) WINE STORAGE TANK (TANK #1546)
	WITH PRESSURE/VACUUM VALVE AND INSULATION
N-266-778-0:	60,000 GALLON (OR EQUIVALENT) WINE STORAGE TANK (TANK #236)
	WITH PRESSURE/VACUUM VALVE AND INSULATION
N-266-779 - 0:	60,000 GALLON (OR EQUIVALENT) WINE STORAGE TANK (TANK #238)
	WITH PRESSURE/VACUUM VALVE AND INSULATION
N-266-780-0:	60,000 GALLON (OR EQUIVALENT) WINE STORAGE TANK (TANK #240)
	WITH PRESSURE/VACUUM VALVE AND INSULATION
N-266-781-0:	60,000 GALLON (OR EQUIVALENT) WINE STORAGE TANK (TANK #241)
	WITH PRESSURE/VACUUM VALVE AND INSULATION
N-266-782-0:	60,000 GALLON (OR EQUIVALENT) WINE STORAGE TANK (TANK #244)
	WITH PRESSURE/VACUUM VALVE AND INSULATION
N-266-783-0:	60,000 GALLON (OR EQUIVALENT) WINE STORAGE TANK (TANK #245)
	WITH PRESSURE/VACUUM VALVE AND INSULATION

With the installation of 8 new tanks, the facility will have total of 677 red and white wine fermentation tanks with a total capacity of 54,399,839 gallons and 685 red and white wine storage tanks with a capacity of 55,067,839 gallons (54,399,839 + 668,000).

VI. Emission Control Technology Evaluation

VOCs (ethanol) are emitted from wine storage tanks as a result of both working losses (which occur when the liquid level in the tank changes) and breathing losses (expansion and contraction effects due to temperature variations). The 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

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

¹ These values were taken from engineering evaluation N-1130261.

 The applicant has proposed to limit daily throughput to 10 turnovers/day; equivalent to the following:

Tank	Daily Throuhgput (gallons/day)	
N-266-776-0 & -777-0 (each)	1,540,000	
N-266-778-0 through -784-0 (each)	600,000	

• The applicant has proposed a specific limiting condition for annual emissions from the 8 proposed tanks of 5,000 lbs/year.

B. Emission Factors

Emissions factors are taken from District FYI-114, VOC Emission Factors for Wine Fermentation and Storage Tanks (6/13/12), for facility located in the Northern Region with ethanol concentration of 20% volume, as follows:

Wine Type	EF2 (lb-VOC/1,0	Course	
	Daily	Annual	Source
White/Red	0.303	0.175	FYI-114, Table 1

C. Calculations

1. Pre-Project Potential to Emit (PE1)

Since these are new emissions units, PE1 = 0 (all pollutants) for the storage operation in these tanks.

2. Post Project Potential to Emit (PE2)

The potential daily and annual VOC emissions are determined as follows:

Daily PE2 = EF (lb-VOC/1,000 gal) x throughput (gal/day) Annual PE2 = EF (lb-VOC/1,000 gal) x throughput (gal/year)

Permit Unit	Daily EF	Throughput	Daily	Annual
remit ont	(lb-VOC/1,000 gal)	(gal/day)	(lb/day)	(lb/year)
N-266-776-0		1,540,000	466.6	
N-266-777-0		1,540,000	181.8	
N-266-778-0	0.303	600,000	181.8	
N-266-779-0		600,000	181.8	5,000
N-266-780-0	0.303	600,000	181.8	5,000
N-266-781-0		600,000	181.8	
N-266-782-0		600,000	181.8	
N-266-783-0		600,000	181.8	

The PE2 for each tank is calculated above; however, the facility currently has a SLC of 394,298 lb-VOC/year for wine fermentation and storage operations and the applicant is not proposing any changes to this limit.

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

Pursuant to Section 4.9 of District Rule 2201, the Pre-Project Stationary Source Potential to Emit (SSPE1) is the Potential to Emit (PE) from all units with valid Authorities to Construct (ATC) or Permits to Operate (PTO) at the Stationary Source and the quantity of emission reduction credits (ERC) which have been banked since September 19, 1991 for Actual Emissions Reductions that have occurred at the source, and which have not been used on-site.

This project only concerns VOC emissions. This facility acknowledges that its VOC emissions are already above the Offset and Major Source Thresholds for VOC emissions; therefore, SSPE1 calculations are not necessary.

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

Pursuant to Section 4.10 of District Rule 2201, the Post Project Stationary Source Potential to Emit (SSPE2) is the Potential to Emit (PE) from all units with valid Authorities to Construct (ATC) or Permits to Operate (PTO) at the Stationary Source and the quantity of emission reduction credits (ERC) which have been banked since September 19, 1991 for Actual Emissions Reductions that have occurred at the source, and which have not been used on-site.

This project only concerns VOC emissions. This facility acknowledges that its VOC emissions are already above the Offset and Major Source Thresholds for VOC emissions; therefore, SSPE2 calculations are not necessary.

5. Major Source Determination

Rule 2201 Major Source Determination:

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

Rule 2410 Major Source Determination:

As indicated above, the SSPE VOC emission before the proposal project is calculated to 395,345 pounds of VOC per year, equivalent to 197.7 tons of VOC per year. The other pollutants were taken from Project N-1132478 and are summarized in the table below:

PSD Major Source Determination (tons/year)						
	NO2	VOC	SO2	CO	РМ	PM10
Estimated Facility PE before Project Increase	0.3	197.7	0.1	0.8	0.3	0.3
PSD Major Source Thresholds	250	250	250	250	250	250
PSD Major Source ? (Y/N)	2	N	N	N	N	N

As shown above, the facility is not an existing Major Source for PSD for any pollutant. Therefore, the facility is not an existing Major Source for PSD.

6. Baseline Emissions (BE)

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

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

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

Otherwise,

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

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

7. SB 288 Major Modification

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

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

SB 288 Major Modification Thresholds (Existing Major Source)						
Pollutant	Project PE (lb/year)	Threshold (lb/year)	Major Modification?			
VOC	5,000	50,000	No			

8. Federal Major Modification

District Rule 2201, Section 3.17 states that Federal Major Modifications are the same as "Major Modification" as defined in 40 CFR 51.165 and part D of Title I of the CAA. SB

288 Major Modifications are not federal major modifications if they meet the criteria of the "Less-Than-Significant Emissions Increase" exclusion.

A Less-Than-Significant Emissions Increase exclusion is for an emissions increase for the project, or a Net Emissions Increase for the project (as defined in 40 CFR 51.165 (a)(2)(ii)(B) through (D), and (F)), that is not significant for a given regulated NSR pollutant, and therefore is not a federal major modification for that pollutant.

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

Significant Threshold (lb/year)					
Pollutant Threshold (lb/year)					
VOC	0				

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

Net Emission Increase for New Units (NEI_N)

NEI can be calculated as the sum of the difference of the project actual emissions (PAE) and baseline actual emissions (BAE) for the emissions units involved in this project. Thus,

NEI =
$$\sum (PAE - BAE)$$

Since this project involves only new emissions units, and no change to the existing emissions units. The baseline actual emissions for the new units are each equal to zero. Thus,

$$NEI = \sum (PAE - BAE)_{New}$$

Where:

 $BAE_{New} = 0$

NEI = $\sum (PAE)_{New}$

Tanks operating in a winery are not truly independent emissions units. Therefore, the potential annual emissions must be established with consideration of all the other

associated tanks in the facility. The potential to emit from the 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. Thus,

Based on the collective physical capacity of the wine tanks in this facility, PE2_{New} is calculated to 2,380 pounds VOC per year. See detailed potential emissions calculations in Appendix A of this document. Thus,

Federal Major Modification Thresholds and Determination						
Pollutant	Pollutant NEI (lb/year) Thresholds (lb/year) Federal Major Modification?					
VOC	VOC 2,380 0 Yes					

As indicated in the above table, this project constitutes a Federal Major Modification.

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

Rule 2410 applies to pollutants for which the District is in attainment or for unclass sified, pollutants. The pollutants addressed in the PSD applicability determination are listed as follows:

- NO2 (as a primary pollutant)
- SO2 (as a primary pollutant)
- CO
- PM
- PM10
- Greenhouse gases (GHG): CO2, N2O, CH4, HFCs, PFCs, and SF6

The first step of this PSD evaluation consists of determining whether the facility is an existing PSD Major Source or not (See Section VII.C.5 of this document).

In the case the facility is an existing PSD Major Source, the second step of the PSD evaluation is to determine if the project results in a PSD significant increase.

In the case the facility is NOT an existing PSD Major Source but is an existing source, the second step of the PSD evaluation is to determine if the project, by itself, would be a PSD major source.

In the case the facility is new source, the second step of the PSD evaluation is to determine if this new facility will become a new PSD major Source as a result of the project and if so, to determine which pollutant will result in a PSD significant increase.

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 major source for PSD. Because the project

is not located within 10 km 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. Significance of Project Emission Increase Determination

a. Potential to Emit of attainment/unclassified pollutant for New or <u>Modified</u> Emission Units vs PSD Significant Emission Increase Thresholds

As a screening tool, the potential to emit from all new and modified units is compared to the PSD significant emission increase thresholds, and if total potential to emit from all new and modified units is below this threshold, no futher analysis will be needed.

PSD Significant Emission Increase Determination: Potential to Emit (tons/year)						
	NO2	SO2	СО	PM	PM10	CO2e
Total PE from New and Modified Units	0	0	0	0	0	0
PSD Significant Emission Increase Thresholds 40 40 100 25 15 75,000					75,000	
PSD Significant Emission Increase?	N	N	N	N	N	N

As demonstrated above, because the project has a total potential to emit from all new and modified emission units below the PSD significant emission increase thresholds, this project is not subject to the requirements of Rule 2410 due to a significant emission increase 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.

No changes to the SLC of VOC for wine fermentation and storage operations are proposed. Therefore, QNEC is equal to zero for each quarter for each permit unit.

VIII. Compliance

Rule 2201 New and Modified Stationary Source Review Rule

A. Best Available Control Technology (BACT)

1. BACT Applicability

BACT requirements are triggered on a pollutant-by-pollutant basis and on an emissions unit-by-emissions unit basis for the following*:

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

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

The applicant is proposing to install 8 new wine storage tanks with a PE greater than 2 lb/day for VOC. Thus BACT is triggered for VOC for these emissions units.

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

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

c. Modification of emissions units - 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 VII.C.8 above, this project constitutes a Federal Major Modification for VOC emissions. Therefore BACT is triggered for VOC for all emissions units in the project for which there is an emission increase.

2. BACT Guideline

BACT Guideline 5.4.13 applies to the wine storage tanks. [Wine Storage Tanks] (Appendix B)

3. Top-Down BACT Analysis

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

Pursuant to the attached Top-Down BACT Analysis (Appendix B), since the technologically feasible options are not cost effective and BACT has been satisfied with the following:

^{*}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.

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

B. Offsets

1. Offset Applicability

Pursuant to Section 4.5.3, offset requirements shall be triggered on a pollutant by pollutant basis and shall be required if the Post Project Stationary Source Potential to Emit (SSPE2) equals to or exceeds the offset threshold levels in Table 4-1 of Rule 2201. Facility emissions are already above the Offset and Major Source Thresholds for VOC emissions; therefore, offsets are triggered.

2. Quantity of Offsets Required

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

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

Offsets Required (lb/year) = $(\Sigma[PE2 - BE] + ICCE) \times DOR$, 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

BE = Pre-project Potential to Emit for:

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

otherwise,

BE = Historic Actual Emissions (HAE)

Pursuant to District Policy APR 1420, NSR Calculations for Units with Specific Limiting Conditions (3/12/07), the quantity of ERCs for a project will be determined by comparing the post project PE, which is the SLC, to the pre project BE for the SLC.

Additionally, the policy 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.

As established in District Project N-1130261, all tanks at this facility meet the District's determination of achieved-in-practice BACT (and are thus Clean Emission Units), therefore the pre project BE emissions are equal to the pre project PE emissions (BE_{SLC} $_{\pm}$ PE1_{SLC}).

Based on the information above, the emissions increase to be offset for this project should be calculated as follows:

Emissions Increase (lb/year) = $PE2_{SLC} - BE_{SLC}$

Where: $PE2_{SLC}$ = The post project SLC selected by the facility. In this project, $PE2_{SLC}$ = $PE1_{SLC}$.

 $BE_{SLC} = 395,345 \text{ lb-VOC/year}$

Therefore.

Emissions Increase (lb/year) = PE2_{SLC} - BE_{SLC} = 395,345 lb-VOC/year - 395,345 lb-VOC/year = 0 lb-VOC/year

C. Public Notification

1. Applicability

Public noticing is required for:

- a. New Major Sources, Federal Major Modifications, and SB288 Major Modifications,
- b. Any new emissions unit with a Potential to Emit greater than 100 pounds during any one day for any one pollutant,
- c. Any project which results in the offset thresholds being surpassed, and/or
- d. Any project with an SSIPE of greater than 20,000 lb/year for any pollutant.

a. New Major Sources, Federal Major Modifications, and SB288 Major Modifications

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

As demonstrated in VII.C.8, this project is a Federal Major Modification for VOC; therefore, public noticing for Federal Major Modification purposes is required.

b. PE > 100 lb/day

Applications which include a new emissions unit with a PE greater than 100 pounds during any one day for any pollutant will trigger public noticing requirements. As seen in Section VII.C.2 above, this project includes new emissions units which have daily emissions greater than 100 lb/day; therefore public noticing for PE > 100 lb/day purposes is required.

c. Offset Threshold

The following table compares the SSPE1 with the SSPE2 in order to determine if any offset thresholds have been surpassed with this project.

Offset Threshold						
Pollutant SSPE1 SSPE2 Offset Public Notice (lb/year) Threshold Required?						
VOC	> 20,000	> 20,000	20,000 lb/year	No		

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

d. SSIPE > 20,000 lb/year

Public notification is required for any permitting action that results in a Stationary Source Increase in Permitted Emissions (SSIPE) of more than 20,000 lb/year of any affected pollutant. According to District policy, the SSIPE is calculated as the Post Project Stationary Source Potential to Emit (SSPE2) minus the Pre-Project Stationary Source Potential to Emit (SSPE1), i.e. SSIPE = SSPE2 – SSPE1. The values for SSPE2 and SSPE1 are calculated according to Rule 2201, Sections 4.9 and 4.10, respectively. The SSIPE is compared to the SSIPE Public Notice thresholds in the following table:

Stationary Source Increase in Permitted Emissions [SSIPE] – Public Notice						
Pollutont	∑PE2	∑PE1	SSIPE	SSIPE Public	Public Notice	
Pollutant	(lb/year)	(lb/year)	(lb/year)	Notice Threshold	Required?	
VOC	394,298	394,298	0	20,000 lb/year	No	

As demonstrated above, the SSIPE for VOC was 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 and for new units with daily emissions exceeding 100 lb/day. Therefore, public notice documents will be submitted to the California Air Resources Board (CARB)

and US Environmental Protection Agency (US EPA) and a public notice will be published in a local newspaper of general circulation prior to the issuance of the ATCs for this equipment.

D. Daily Emission Limits (DELs)

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

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

Proposed Rule 2201 (DEL) Conditions:

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

- The ethanol content of wine stored in this tank shall not exceed 20 percent by volume. [District Rule 2201]
- The daily tank throughput, in gallons, shall not exceed ten times the maximum nominal tank capacity stated in the equipment description. [District Rule 2201]
- The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rules 2201 and 4694]

E. Compliance Assurance

1. Source Testing

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

2. Monitoring

No monitoring is required to demonstrate compliance with Rule 2201.

3. Recordkeeping

Recordkeeping is required to demonstrate compliance with the offsets, public notification and daily emission limit requirements of Rule 2201. Recordkeeping is also

required for winery tanks pursuant to District Rule 4694, *Wine Fermentation and Storage Tanks*. For the proposed wine storage tanks, the following conditions will be placed on the permits:

- The operator shall record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694]
- Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201]
- All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201 and 4694]
- Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rule 2201]

4. Reporting

No reporting is required to demonstrate compliance with Rule 2201.

F. Ambient Air Quality Analysis

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

G. Compliance Certification

Section 4.15.2 of this Rule requires the owner of a new Major Source or a source undergoing a Federal Major Modification to demonstrate to the satisfaction of the District that all other Major Sources owned by such person and operating in California are in compliance or are on a schedule for compliance with all applicable emission limitations and standards. As discussed in Sections VIII-Rule 2201-C.8, this source is undergoing a Federal Major Modification, therefore this requirement is applicable. Included in Appendix C is Delicato's compliance certification.

H. Alternative Siting Analysis

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

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

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

Rule 2410 Prevention of Significant Deterioration

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

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

Rule 2520 Federally Mandated Operating Permits

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

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

As discussed above, the facility has applied for a Certificate of Conformity (COC). Therefore, the facility must apply to modify their Title V permit with an administrative amendment, prior to operating with the proposed modifications. Continued compliance with this rule is expected. The facility may construct/operate under the ATC upon submittal of the Title V administrative amendment/minor modification application.

Rule 4001 New Source Performance Standards (NSPS)

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

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

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

Rule 4102 Nuisance

Rule 4102 states that no air contaminant shall be released into the atmosphere which causes a public nuisance. Public nuisance conditions are not expected as a result of the proposed operations provided the equipment is well maintained. Therefore, the following condition will be listed on each permit to ensure compliance:

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

California Health & Safety Code 41700 (Health Risk Assessment)

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

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

District Rule 4623 Storage of Organic Liquids

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

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

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

District Rule 4694 Wine Fermentation and Storage Tanks

The purpose of this rule is to reduce emissions of volatile organic compounds (VOC) from the fermentation and bulk storage of wine, or achieve equivalent reductions from alternative emission sources. This rule is applicable to all facilities with fermentation emissions in excess of 10 tons-VOC/year. The storage tank provisions of this rule apply to all tanks with capacity in excess of 5,000 gallons.

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 placed on the permits for stainless steel tanks ≥ 5,000 gallons in capacity and used for storage to ensure compliance with the requirements of Section 5.2.1:

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

Section 5.2.2 requires that the temperature of the stored wine be maintained at or below 75° F. The following condition will be placed on the permits for stainless steel tanks $\geq 5,000$ gallons in capacity and used for storage to ensure compliance with the requirements of Section 5.2.2:

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

Every three years, Section 6.1 and 6.2 require facilities with fermentation operations to submit a Three-Year Compliance Plan and a Three-Year Compliance Plan Verification respectively. The proposed tanks in this project are for wine storage only, and since these sections are not applicable to wine storage operations, no further discussion is required.

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

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

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

Section 6.4.3 requires that all monitoring be performed for any CERs as identified in the facility's Three-Year Compliance Plan and that the records of all monitoring be maintained. Since this requirement is for operators mitigation fermentation emission and the proposed tanks are only for wine storage operations, this section is not applicable to wine tanks in this project. Therefore, no further discussion is required.

Section 6.4 requires that records required by this rule be maintained, retained on-site for a minimum of five years, and made available to the APCO upon request. The following conditions will be placed on all permits to ensure compliance:

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

California Health & Safety Code 42301.6 (School Notice)

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

California Environmental Quality ACT (CEQA)

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

- Inform governmental decision-makers and the public about the potential, significant environmental effects of proposed activities.
- Identify the ways that environmental damage can be avoided or significantly reduced.
- Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible.
- 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)).

IX. Recommendation

Compliance with all applicable rules and regulations is expected. Pending a successful NSR Public Noticing period, issue Authorities to Construct N-266-776-0 through -783-0 subject to the permit conditions on the attached draft Authorities to Construct in Appendix D.

X. Billing Information

Annual Permit Fees			
Permit Number	Fee Schedule	Fee Description	Annual Fee
N-266-776-0 & -777-0	3020-05 - E	154,000 gallons	\$246.00
N-266-778-0 through -783-0	3020-05-D	60,000 gallons	\$185.00

XI. Appendices

- A: Federal Major Modification Calculations
- B: BACT Guideline 5.4.13 and Top Down BACT Analyses
- C: Compliance Certification
- D: Draft ATCs

Appendix A

Federal Major Modification Calculations

Federal Major Modification Calculations

A. Basis

 Since winery tanks are not truly independent emissions units, the Net Emission Increase (NEI_{NEW}) for new tanks which are added to an existing winery with a Specific Limiting Condition (SLC) is considered to be the increase in the PE of all tanks in the facility resulting from adding the proposed new tanks to the SLC:

New winery tanks will be added to the existing Specific Limiting Conditions (SLC)
which limits combined annual fermentation and storage emissions for all wine
fermentation and storage tanks at the facility. A summary of the winery tanks at the
facility is given in the following table:

Type of Wine Tank	Pre-Project (gallons)	Proposed New Tanks (gallons)	Post Project
Red and white wine fermentation and storage tanks	54,399,839	0	54,399,839
Red and white wine storage tanks	0	668,000	668,000
Total:	54,399,839	668,000	55,067,839

- Annual Potential to Emit for VOC emissions from the fermentation and storage operation at the facility will be calculated generally using the method specified in the District's FYI-296, Calculation of the Potential to Emit for VOC Emissions from Wine Fermentation and Storage Operations. However, the calculation method of FYI-296 allows consideration of the facility's pressing or crushing capacity as a potential operating limitation. While this consideration is applicable to establishing a Specific Limiting Condition for the annual Potential to Emit for all tanks at a facility, it is not applicable to calculating PE2 for added tanks for purposes of determination of a Federal Major Modification since the pressing and/or the pressing capacity are not limited by permits and thus may be increased at any time without consideration of NSR impact. Therefore, the facility's pressing or crushing potential will be conservatively ignored and only the new tank capacity will be considered in the calculations.
- Maximum ethanol content of stored wine is 20.0% volume.
- All storage tanks are insulated and equipped with pressure/vacuum relief valves.
 Therefore the emission factors given in District FYI-114 for wine storage operations are applicable.

B. Emission Factors

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

Wine Storage Working Losses from insulated tanks @ 20% Ethanol per District FYI-114:

Annual:

0.175 lb-VOC/1000 gallons annual throughput

C. Calculations

1. Pre-Project Potential to Emit (PE1)

The combined Pre-Project Potential to Emit for the proposed new storage capacity is determined in the following sequence of calculations:

a. Potential fermentation emissions from the white wine production scenario are considered first, assuming the facility produces 100% white wine.

White wine production capacity is determined as the lesser of the production capacities of either the crushing, pressing or tankage.

W_W = White wine production capacity (gallons per year as measured immediately after pressing) is the lesser of the following calculations:

W1 = production capacity based on crusher capacity - **not applicable**, **see assumptions**

W2 = production capacity based on pressing capacity – **not applicable**, **see** assumptions

W3 = $(V_{FW} \times F_W \times D_w) / W_{FW}$ (limited by white fermenter volume)

W4 = $(V_T \times D_w) / R_{TW}$ (limited by overall tank processing volume)

where.

 D_w = days in a white wine crush season = 120 days

 W_{EW} = White fermentation period = 10 days

 F_W = Fill factor for white wine fermentation = 95%

 R_{TW} = Total winery retention time for white wine, 40 + 10 = 50 days

 V_{FW} = Total volume of white wine fermenters = 54,399,839 gallons

 V_T = Total Storage Cooperage = 54,399,839 gallons

Performing the above calculations yields

W1 = Not applicable

W2 = Not applicable

W3 = 620.2 MG/year (million gals/year)

W4 = 130.6 MG/year

Selecting $W_W = W4 = 130.6 MG/year$

Potential white wine fermentation emissions are typically determined by applying the white fermentation emission factor stated in FYI-114; however, since this project only authorizes wine storage, there will be no increase from wine production. Therefore, potential emissions from wine production will not be required for this project.

Storage emissions are then calculated for white wine operation per District FYI-114:

 $PE_{storage} = E_s \times T \times W_W$

Where:

E_s = wine storage annual emission factor based on District FYI-114 = 0.175 lb-VOC/1000 gallons of wine transferred for 20% alcohol wine at a facility located in the Northern Region;

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

W_W = maximum quantity of white wine the facility can produce = 130.6 million gallons per year

 $PE_{storage} = (0.175/1000) \times 8 \times 130,600,000 = 182,840 lb-VOC/year$

PE_{white} = PE_{storage} = 182,840 lb-VOC/year

b. Pursuant to District Policy FYI 296, potential emissions from red wine production are subsequently determined.

Red wine production capacity is determined as the lesser of the production capacities of either the crushing, pressing or tankage.

W_R = Red wine production capacity (gallons per year as measured immediately after pressing) is the lesser of the following calculations:

W1 = production capacity based on crusher capacity – **not applicable**, **see assumptions**

W2 = production capacity based on pressing capacity – **not applicable**, **see assumptions**

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

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

F = Fill factor for red wine fermentation = 80%

M = amount of grape juice produced per ton of grapes crushed = 200 gallons

P = pressing capacity

R_{FR} = Red fermentation period = 5 days

 R_{TS} = Total winery retention time for red wine, 40 + 5 = 45 days

V_{FR} = total volume of red wine fermenters = 54,399,839 gallons

 V_T = Total Winery Cooperage = 54,399,839 gallons

Performing the above calculations yields

W1 = Not applicable

W2 = Not applicable

W3 = 1,044.5 MG/year (million gals/year)

W4 = 145.1 MG/year

Selecting $W_R = W4 = 145.1 \text{ MG/year}$

Potential red wine fermentation emissions are typically determined by applying the red fermentation emission factor stated in FYI-114; however, since this project only authorizes wine storage, there will be no increase from wine production. Therefore, potential emissions from wine production will not be required for this project.

Storage emissions are then calculated for red wine operation per District FYI-114:

 $PE_{storage} = E_s \times T \times W_W$

Where:

E_s = wine storage annual emission factor based on District FYI-114 = 0.175 lb-VOC/1000 gallons of wine transferred for 20% alcohol wine at a facility located in the Northern Region;

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

W_R = maximum quantity of red wine the facility can produce = 145.1 million gallons per year

 $PE_{storage} = (0.175/1000) \times 8 \times 145,100,000 = 203,140 \text{ lb-VOC/year}$

 $PE_{red} = PE_{storage} = 203,140 lb-VOC/year$

Taking the greater of PE_{white} and PE_{red} as PE1_{tanks}; therefore,

 $PE1_{tanks} = PE1_{red} = 203,140 lb-VOC/year$

2. Post-Project Potential to Emit (PE2)

The combined Post-Project Potential to Emit for the facility including the proposed new tanks is determined in the following sequence of calculations:

a. Potential fermentation emissions from the white wine production scenario are considered first, assuming the facility produces 100% white wine:

White wine production capacity is determined as the lesser of the production capacities of either the crushing, pressing or tankage.

- W_W = White wine production capacity (gallons per year as measured immediately after pressing) is the lesser of the following four calculations:
- W1 = production capacity based on crusher capacity **not applicable**, **see** assumptions
- W2 = production capacity based on pressing capacity **not applicable**, **see** assumptions

W3 = $(V_{PW} \times F_W \times D_w) / W_{PW}$ (limited by white fermenter volume)

W4 = $(V_T \times D_w) / R_{TW}$ (limited by overall tank processing volume) where.

 D_w = days in a white wine crush season = 120 days

W_{FW} = White fermentation period = 10 days

F_W = Fill factor for white wine fermentation = 95%

 R_{TW} = Total winery retention time for white wine, 40 + 10 = 50 days

 V_{FW} = Total volume of white wine fermenters = 54,399,839 gallons

 V_T = Total Storage Cooperage = 55,067,839 gallons

Performing the above calculations yields

W1 = Not applicable

W2 = Not applicable

 $W3 = 631.7 \, MG/year$

W4 = 132.2 MG/year

Selecting $W_W = W4 = 132.2$ MG/year and applying the emission factor for white wine fermentation yields:

Potential white wine fermentation emissions are typically determined by applying the white fermentation emission factor stated in FYI-114; however, since this project only authorizes wine storage, there will be no increase from wine production. Therefore, potential emissions from wine production will not be required for this project.

Storage emissions are then calculated for white wine operation per District FYI-114: $PE_{storage} = E_s \times T \times W_W$

Where:

E_s = wine storage annual emission factor based on District FYI-114 = 0.175 lb-VOC/1000 gallons of wine transferred for 20% alcohol wine at a facility located in the Northern Region;

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

W_W = maximum quantity of white wine the facility can produce = 132.2 million gallons per year

 $PE_{storage} = (0.175/1000) \times 8 \times 132,200,000 = 185,080 \text{ lb-VOC/year}$

PE_{white} = PE_{storage} = 185,080 lb-VOC/year

b. Pursuant to District Policy FYI 296, potential emissions from red wine production are subsequently determined.

Red wine production capacity is determined as the lesser of the production capacities of either the crushing, pressing or tankage.

W_R = Red wine production capacity (gallons per year as measured immediately after pressing) is the lesser of the following calculations:

W1 = production capacity based on crusher capacity – **not applicable**, **see assumptions**

W2 = production capacity based on pressing capacity – **not applicable**, **see assumptions**

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

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

C = grape crushing capacity

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

F = Fill factor for red wine fermentation = 80%

M = amount of grape juice produced per ton of grapes crushed = 200 gallons

P = pressing capacity

 R_{FR} = Red fermentation period = 5 days

 R_{TS} = Total winery retention time for red wine, 40 + 5 = 45 days

V_{FR} = total volume of red wine fermenters = 54,399,839 gallons

 V_T = Total Winery Cooperage = 55,067,839 gallons

Performing the above calculations yields

W1 = Not applicable

W2 = Not applicable

W3 = 1,044.5 MG/year (million gals/year)

W4 = 146.8 MG/year

Selecting W_R = W4 = 146.8 MG/year

Potential red wine fermentation emissions are typically determined by applying the red fermentation emission factor stated in FYI-114; however, since this project only authorizes wine storage, there will be no increase from wine production. Therefore, potential emissions from wine production will not be required for this project.

Storage emissions are then calculated for red wine operation per District FYI-114:

$$PE_{storage} = E_s \times T \times W_W$$

Where:

E_s = wine storage annual emission factor based on District FYI-114 = 0.175 lb-VOC/1000 gallons of wine transferred for 20% alcohol wine at a facility located in the Northern Region;

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

W_R = maximum quantity of red wine the facility can produce = 146.8 million gallons per year

$$PE_{storage} = (0.175/1000) \times 8 \times 146,800,000 = 205,520 \text{ lb-VOC/year}$$

Taking the greater of PE_{white} and PE_{red} as PE2_{tanks}; therefore,

$$PE2_{tanks} = PE2_{red} = 205,520 lb-VOC/year$$

Federal Major Modification Increase:

$$NEI_N = PE2_{tanks} - PE1_{tanks}$$

$$NEI_N = 205,520 - 203,140 = 2,380 lb-VOC/year$$

Appendix B

BACT Guideline 5.4.13 and Top Down BACT Analysis

SJVAPCD Best Available Control Technology (BACT) Guideline 5.4.13* Last Update 10/6/2009

Wine Storage Tank

Pollutant	Achieved in Practice or contained in SIP	Technologically Feasible	Alternate Basic Equipment
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.		Capture of VOCs and thermal or catalytic oxidation or equivalent (98% control	
	Capture of VOCs and carbon adsorption or equivalent (95% control)		
	storage temperature not exceeding 75 degrees F, achieved within 60 days of	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 to 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 s a state implementation plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

*This is a Summary Page for this Class of Source

Top-Down BACT Analysis for VOCs from Wine Storage Operations

Step 1 - Identify All Possible Control Technologies

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

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

 **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	Option	Control	Overall Capture & Control Efficiency ²
1	2	Capture of VOCs and thermal or catalytic oxidation or equivalent	98%
2	3	Capture of VOCs and carbon adsorption or equivalent	95%
3	4	Capture of VOCs and absorption or equivalent	90%
4	5	Capture of VOCs and condensation or equivalent	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; and continuous storage temperature not exceeding 75 degrees F, achieved within 60 days of completion of fermentation	0% Baseline (Achieved-in- Practice)

² Relative to "industry standard"

Step 4 - Cost Effectiveness Analysis

A cost-effective analysis is performed for each control technology which is more effective than meeting the requirements of District Rule 4694 plus tank insulation (achieved-in-practice BACT), as proposed by the facility.

Collection System Capital Investment (based on ductwork)

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

Bases of Cost Information:

- The costs for the ductwork and the required clean-in-place system are based on information from the 2005 Eichleay Study and Projects C-1103740 and N-1133659. 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 proposed 154,000 gallon storage tanks and 60,000 gallon storage tanks are located in different areas of the facility and will therefore require separate ducting and control systems
- The collection system will consist 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 of 6" will be utilized for all ducts in this project.

Capital Cost of Ductwork for Wine Storage Tanks

Connection from 60,000 gallon tanks to main duct = 6 tanks x 38 feet x \$61/foot = \$13,908 60,000 gallon tanks' main ducting including 50 feet to control device = 186 feet (per applicant) x\$61/foot = \$11,346

Connection from 154,000 gallon tanks to main duct = 2 tanks x 42.5 feet x 61/foot = 5,185 154,000 gallon tanks' main ducting including 50 feet to control device = 91.5 feet (per applicant) x61/foot = 5,581

Unit installed cost for 6 inch butterfly valve = \$2,125/valve x 8 valves = \$17,000 Unit installed cost one foot removable spool = \$500/tank x 8 tanks = \$4,000 Knockout drum = 2 - 1000 gallon x \$6,000 = \$12,000 Duct support allowance = \$20,000

Total = \$13,908 + \$11,346 + \$5,185 + \$5,581 + \$17,000 + \$4,000 + \$12,000 + \$20,000 = \$89,020

Capital Cost of Ductwork for Wine Storage Tanks			
Cost Description	Cost (\$)		
Duct Estimate from Eichleay Study 2005 Data	\$89,020		
Adjusting factor from 2005 dollars to 2014 dollars (3% inflation per year)	1.305		
Inflation adjusted duct cost	\$116,171		
The following cost data is taken from EPA Contro (EPA/452/B-02-001).	l Cost Manual, Sixth Edition		
Direct Costs (DC)		
Base Equipment Costs (Ductwork) See Above	\$116,171		
Instrumentation 10%	\$11,617		
Sales Tax 3%	\$3,485		
Freight 5%	\$5,809		
Purchased equipment cost	\$137,082		
Foundations & supports 8%	\$10,967		
Handling & erection 14%	\$19,191		
Electrical 4%	\$5,483		
Piping 2%	\$2,742		
Painting 1%	\$1,371		
Insulation 1%	\$1,371		
Direct installation costs	\$41,125		
Total Direct Costs	\$178,207		
Indirect Costs (IC)			
Engineering 10%	\$13,708		
Construction and field expenses 5%	\$6,854		
Contractor fees 10%	\$13,708		
Start-up 2%	\$2,742		
Performance test 1%	\$1,371		
Contingencies 3%	\$4,112		
Total Indirect Costs	\$42,495		
Total Capital Investment (TCI) (DC + IC)	\$220,702		

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Capital Cost 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. Most likely, these costs will be significant.

Since the two tank farms are small and remotely located, two small CIP systems are included. The CIP systems are much smaller than usual due to there only being 6 tanks in one group and 2 tanks in the other.

Clean-In-Place (CIP) System		
Cost Description	Cost (\$)	
Current cost of CIP system (154k Tank Farm)	\$30,000	
Current cost of CIP system (60k Tank Farm)	\$50,000	
The following cost data is taken from EPA Control (EPA/452/B-02-001).	Cost Manual, Sixth Edition	
Direct Costs (D	OC)	
Base Equipment Costs (CIP System) See Above	\$80,000	
Instrumentation 10%	\$8,000	
Sales Tax 3%	\$2,400	
Freight 5%	\$4,000	
Purchased equipment cost	\$94,400	
Foundations & supports 8%	\$7,552	
Handling & erection 14%	\$13,216	
Electrical 4%	\$3,776	
Piping 2%	\$1,888	
Painting 1%	\$ 944	
Insulation 1%	\$ 944	
Direct installation costs	\$28,320	
Total Direct Costs	\$122,720	
Indirect Costs (IC)	
Engineering 10%	\$9,440	
Construction and field expenses 5%	\$4,720	
Contractor fees 10%	\$9,440	
Start-up 2%	\$1,888	
Performance test 1%	\$ 944	
Contingencies 3%	\$2,832	
Total Indirect Costs	\$29,264	
Total Capital Investment (TCI) (DC + IC)	\$151,984	

Annualized Capital Costs of Ductwork and CIP for six 60,000 Gallon and two 154,000 Gallon Wine Storage Tanks

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 = \$372,686 x 0.163 = \$60,748

Emission Reductions

The control with the highest control efficiency is 98%; therefore, 98% control efficiency will be utilized. If the control technology with 98% control is not cost effective, it is assumed neither will the control technologies with lower control efficiencies.

Annual VOC Emission Reductions = Annual PE x 0.98

 $= 5,000 lb-VOC/year \times 0.98$

= 4,900 lb-VOC/year = 2.45 tons-VOC/year

Cost Effectiveness

Cost Effectiveness = Total Annual Cost + Annual Emission Reductions

Cost Effectiveness = \$60,748/year ÷ 2.45 tons-VOC/year = \$24,795 /ton-VOC

As shown above, the cost of VOC reduction by capture of VOCs with thermal or catalytic oxidation, carbon adsorption, absorption or condensation would be greater than the \$17,500/ton cost effectiveness threshold for VOC in the District BACT policy, based only on the annualized purchase cost of the collection system ductwork and CIP system alone. Therefore these options are not cost-effective and will not be considered for this project.

Step 5 - Select BACT

All identified feasible options with control efficiencies higher than the option proposed by the facility have been shown to not be cost effective. The facility has proposed Option 1, insulated tank, pressure/vacuum valve set within 10% of the maximum allowable working pressure of the tank, "gas tight" tank operation and achieve and maintain a continuous storage temperature

not exceeding 75 $^{\circ}$ F within 60 days of completion of fermentation. These BACT requirements will be listed on the permits as enforceable conditions.

Appendix C Compliance Certification

TITLE V MODIFICATION - COMPLIANCE CERTIFICATION FORM

[X]	SIGNIFICANT PERMIT MODIFICATION [] ADMINISTRATIVE AMENDMENT
1. 2.	PANY NAME: Delicato Family Vineyards Type of Organization: [X] Corporation [] Sole Ownership [] Government [] Partnership [] Utility Type of Organization: [X] Corporation [] Sole Ownership [] Government [] Partnership [] Utility Type of Organization: [X] Corporation [] Sole Ownership [] Government [] Partnership [] Utility Type of Organization: [X] Corporation [] Sole Ownership [] Government [] Partnership [] Utility Type of Organization: [X] Corporation [] Sole Ownership [] Government [] Partnership [] Utility Type of Organization: [X] Corporation [] Sole Ownership [] Government [] Partnership [] Utility Type of Organization: [X] Corporation [] Sole Ownership [] Government [] Partnership [] Utility Type of Organization: [X] Corporation [] Sole Ownership [] Government [] Partnership [] Utility Type of Organization: [X] Corporation [] Sole Ownership [] Government [] Partnership [] Utility Type of Organization: [X] Corporation [] Sole Ownership [] Government [] Partnership [] Utility Type of Organization: [X] Corporation [] Sole Ownership [] Government [] Partnership [] Utility Type of Organization: [X] Corporation [] Sole Ownership [] Government [] Partnership [] Utility Type of Ownership [] Owne
	DMPLIANCE CERTIFICATION (Read each statement carefully and initial all circles for confirmation): Based on information and belief formed after reasonable inquiry, the equipment identified in this application will continue to comply with the applicable federal requirement(s). Based on information and belief formed after reasonable inquiry, the equipment identified in this application will comply with applicable federal requirement(s) that will become effective during the permit term, on a timely basic Corrected information will be provided to the District when I become aware that incorrect or incomplete information has been submitted. Based on information and belief formed after reasonable inquiry, information and statements in the submitted application package, including all accompanying reports, and required certifications are true accurate and complete.
Sign	e, under penalty of perjury under the laws of the state of California, that the forgoing is correct and true: 3/6/14 Date thew R. Belair
Vam	Responsible Official (please print)

Appendix D Draft ATCs

AUTHORITY TO CONSTRUCT

ISSUAN

PERMIT NO: N-266-776-0

LEGAL OWNER OR OPERATOR: DELICATO VINEYARDS

MAILING ADDRESS:

DELICATO VINEYARDS 12001 S HIGHWAY 99

MANTECA, CA 95336

LOCATION:

12001 S HIGHWAY 99 MANTECA, CA 95336

EQUIPMENT DESCRIPTION:

154,000 GALLON (OR EQUIVALENT) WINE STORAGE TANK (TANK #1545) 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 25 feet in diameter and 40 feet in height with a proposed volume of 154,000 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]
- 5. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694, 5.2.1] 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

- 6. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694, 5.2.1] Federally Enforceable Through Title V Permit
- 7. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rules 2201 and 4694, 5.2.2] Federally Enforceable Through Title V Permit
- 8. The ethanol content of wine stored in this tank shall not exceed 20 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
- 9. The daily tank throughput, in gallons, shall not exceed ten times the maximum nominal tank capacity stated in the equipment description. [District Rule 2201] Federally Enforceable Through Title V Permit
- 10. The operator shall record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694, 6.4.2] Federally Enforceable Through Title V Permit
- 11. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
- 12. Total annual VOC emissions from permit units N-266-776 through -783, calculated on a rolling 12-month total basis, shall not exceed 5,000 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
- 13. Total annual VOC emissions from all wine fermentation and wine storage operations at this facility, calculated on a rolling 12-month total basis, shall not exceed 394,298 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
- 14. Total annual VOC emissions from wine storage operations shall be determined either as the sum of the emissions for each individual wine movement based on the volume transferred in each wine movement and the batch-specific wine storage emission factor calculated using the equation(s) specified within this permit; or as the emissions for total annual wine movements and a single storage emissions factor, calculated using the equation(s) specified within this permit, based on the average ethanol content of the total annual wine movements. [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 %, a = -4.5139E-5, b = 0.01088 and c = 0. [District Rule 2201] Federally Enforceable Through Title V Permit
- 16. Records of the 12-month rolling total fermentation and total storage emissions, including calculation methods and parameters used, shall be maintained. [District Rule 1070 and 2201] Federally Enforceable Through Title V Permit
- 17. The permittee shall maintain the following records: red wine and white wine produced by fermentation at this facility, based on values reported to the Alcohol and Tobacco Tax and Trade Bureau (TTB), U.S. Department of the Treasury; the volume and the ethanol concentration of each wine movement; and the calculated 12 month rolling VOC emission rate (lb-VOC per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
- 18. If the emissions calculated for any rolling 12-month period exceed the annual emissions 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 annual emissions limit for that rolling 12-month period will be deemed to have occurred so long as the calendar year emissions are below the annual emissions limitation. [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



AUTHORITY TO CONSTRUCT

PERMIT NO: N-266-777-0

LEGAL OWNER OR OPERATOR: DELICATO VINEYARDS

MAILING ADDRESS:

DELICATO VINEYARDS 12001 S HIGHWAY 99 MANTECA, CA 95336

LOCATION:

12001 S HIGHWAY 99 MANTECA, CA 95336

EQUIPMENT DESCRIPTION:

154,000 GALLON (OR EQUIVALENT) WINE STORAGE TANK (TANK #1546) 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 25 feet in diameter and 40 feet in height with a proposed volume of 154,000 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]
- 5. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694, 5.2.1] 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 Dikector APCO

Arnaud Marjollet Director of Permit Services

- 6. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694, 5.2.1] Federally Enforceable Through Title V Permit
- 7. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rules 2201 and 4694, 5.2.2] Federally Enforceable Through Title V Permit
- 8. The ethanol content of wine stored in this tank shall not exceed 20 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
- 9. The daily tank throughput, in gallons, shall not exceed ten times the maximum nominal tank capacity stated in the equipment description. [District Rule 2201] Federally Enforceable Through Title V Permit
- 10. The operator shall record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694, 6.4.2] Federally Enforceable Through Title V Permit
- 11. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
- 12. Total annual VOC emissions from permit units N-266-776 through -783, calculated on a rolling 12-month total basis, shall not exceed 5,000 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
- 13. Total annual VOC emissions from all wine fermentation and wine storage operations at this facility, calculated on a rolling 12-month total basis, shall not exceed 394,298 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
- 14. Total annual VOC emissions from wine storage operations shall be determined either as the sum of the emissions for each individual wine movement based on the volume transferred in each wine movement and the batch-specific wine storage emission factor calculated using the equation(s) specified within this permit; or as the emissions for total annual wine movements and a single storage emissions factor, calculated using the equation(s) specified within this permit, based on the average ethanol content of the total annual wine movements. [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 %, a = -4.5139E-5, b = 0.01088 and c = 0. [District Rule 2201] Federally Enforceable Through Title V Permit
- 16. Records of the 12-month rolling total fermentation and total storage emissions, including calculation methods and parameters used, shall be maintained. [District Rule 1070 and 2201] Federally Enforceable Through Title V Permit
- 17. The permittee shall maintain the following records: red wine and white wine produced by fermentation at this facility, based on values reported to the Alcohol and Tobacco Tax and Trade Bureau (TTB), U.S. Department of the Treasury; the volume and the ethanol concentration of each wine movement; and the calculated 12 month rolling VOC emission rate (lb-VOC per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
- 18. If the emissions calculated for any rolling 12-month period exceed the annual emissions 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 annual emissions limit for that rolling 12-month period will be deemed to have occurred so long as the calendar year emissions are below the annual emissions limitation. [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



AUTHORITY TO CONSTRUCT

PERMIT NO: N-266-778-0

LEGAL OWNER OR OPERATOR: DELICATO VINEYARDS

MAILING ADDRESS:

12001 S HIGHWAY 99

MANTECA, CA 95336

LOCATION:

12001 S HIGHWAY 99 MANTECA, CA 95336

EQUIPMENT DESCRIPTION:

60,000 GALLON (OR EQUIVALENT) WINE STORAGE TANK (TANK #236) 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 16 feet in diameter and 40 feet in height with a proposed volume of 60,000 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]
- 5. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694, 5.2.1] 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.

Seved Sadredin, Executive Director APCO

Arnaud Marjollet, Director of Permit Services
N-265-778-0: Aug 5 2014 3:55PM - GARCIAJ : Joint Inspection NOT Required

- 6. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694, 5.2.1] Federally Enforceable Through Title V Permit
- 7. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rules 2201 and 4694, 5.2.2] Federally Enforceable Through Title V Permit
- 8. The ethanol content of wine stored in this tank shall not exceed 20 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
- 9. The daily tank throughput, in gallons, shall not exceed ten times the maximum nominal tank capacity stated in the equipment description. [District Rule 2201] Federally Enforceable Through Title V Permit
- 10. The operator shall record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694, 6.4.2] Federally Enforceable Through Title V Permit
- 11. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
- 12. Total annual VOC emissions from permit units N-266-776 through -783, calculated on a rolling 12-month total basis, shall not exceed 5,000 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
- 13. Total annual VOC emissions from all wine fermentation and wine storage operations at this facility, calculated on a rolling 12-month total basis, shall not exceed 394,298 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
- 14. Total annual VOC emissions from wine storage operations shall be determined either as the sum of the emissions for each individual wine movement based on the volume transferred in each wine movement and the batch-specific wine storage emission factor calculated using the equation(s) specified within this permit; or as the emissions for total annual wine movements and a single storage emissions factor, calculated using the equation(s) specified within this permit, based on the average ethanol content of the total annual wine movements. [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 %, a = -4.5139E-5, b = 0.01088 and c = 0. [District Rule 2201] Federally Enforceable Through Title V Permit
- 16. Records of the 12-month rolling total fermentation and total storage emissions, including calculation methods and parameters used, shall be maintained. [District Rule 1070 and 2201] Federally Enforceable Through Title V Permit
- 17. The permittee shall maintain the following records: red wine and white wine produced by fermentation at this facility, based on values reported to the Alcohol and Tobacco Tax and Trade Bureau (TTB), U.S. Department of the Treasury; the volume and the ethanol concentration of each wine movement; and the calculated 12 month rolling VOC emission rate (lb-VOC per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
- 18. If the emissions calculated for any rolling 12-month period exceed the annual emissions 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 annual emissions limit for that rolling 12-month period will be deemed to have occurred so long as the calendar year emissions are below the annual emissions limitation. [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



AUTHORITY TO CONSTRUCT

ISSUANC

PERMIT NO: N-266-779-0

LEGAL OWNER OR OPERATOR: DELICATO VINEYARDS

MAILING ADDRESS:

12001 S HIGHWAY 99

MANTECA, CA 95336

LOCATION:

12001 S HIGHWAY 99 MANTECA, CA 95336

EQUIPMENT DESCRIPTION:

60,000 GALLON (OR EQUIVALENT) WINE STORAGE TANK (TANK #238) 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 16 feet in diameter and 40 feet in height with a proposed volume of 60,000 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]
- 5. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694, 5.2.1] 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 X APCO

Arnaud Marjollet Director of Permit Services
N-266-779-0: Aug 5 2014 3:55PM - GARCIAJ : Joint Inspection NOT Required

- 6. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694, 5.2.1] Federally Enforceable Through Title V Permit
- 7. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rules 2201 and 4694, 5.2.2] Federally Enforceable Through Title V Permit
- 8. The ethanol content of wine stored in this tank shall not exceed 20 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
- 9. The daily tank throughput, in gallons, shall not exceed ten times the maximum nominal tank capacity stated in the equipment description. [District Rule 2201] Federally Enforceable Through Title V Permit
- 10. The operator shall record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694, 6.4.2] Federally Enforceable Through Title V Permit
- 11. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
- 12. Total annual VOC emissions from permit units N-266-776 through -783, calculated on a rolling 12-month total basis, shall not exceed 5,000 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
- 13. Total annual VOC emissions from all wine fermentation and wine storage operations at this facility, calculated on a rolling 12-month total basis, shall not exceed 394,298 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
- 14. Total annual VOC emissions from wine storage operations shall be determined either as the sum of the emissions for each individual wine movement based on the volume transferred in each wine movement and the batch-specific wine storage emission factor calculated using the equation(s) specified within this permit; or as the emissions for total annual wine movements and a single storage emissions factor, calculated using the equation(s) specified within this permit, based on the average ethanol content of the total annual wine movements. [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 %, a = -4.5139E-5, b = 0.01088 and c = 0. [District Rule 2201] Federally Enforceable Through Title V Permit
- 16. Records of the 12-month rolling total fermentation and total storage emissions, including calculation methods and parameters used, shall be maintained. [District Rule 1070 and 2201] Federally Enforceable Through Title V Permit
- 17. The permittee shall maintain the following records: red wine and white wine produced by fermentation at this facility, based on values reported to the Alcohol and Tobacco Tax and Trade Bureau (TTB), U.S. Department of the Treasury; the volume and the ethanol concentration of each wine movement; and the calculated 12 month rolling VOC emission rate (lb-VOC per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
- 18. If the emissions calculated for any rolling 12-month period exceed the annual emissions 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 annual emissions limit for that rolling 12-month period will be deemed to have occurred so long as the calendar year emissions are below the annual emissions limitation. [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



AUTHORITY TO CONSTRUCT

ISSUA

PERMIT NO: N-266-780-0

LEGAL OWNER OR OPERATOR: DELICATO VINEYARDS

MAILING ADDRESS:

12001 S HIGHWAY 99

MANTECA, CA 95336

LOCATION:

12001 S HIGHWAY 99 MANTECA, CA 95336

EQUIPMENT DESCRIPTION:

60,000 GALLON (OR EQUIVALENT) WINE STORAGE TANK (TANK #240) 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 16 feet in diameter and 40 feet in height with a proposed volume of 60,000 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]
- 5. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694, 5.2.1] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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Seyed Sadredin, Executive Director APCC

Arnaud Marjollet Director of Permit Services

- 6. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694, 5.2.1] Federally Enforceable Through Title V Permit
- 7. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rules 2201 and 4694, 5.2.2] Federally Enforceable Through Title V Permit
- 8. The ethanol content of wine stored in this tank shall not exceed 20 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
- 9. The daily tank throughput, in gallons, shall not exceed ten times the maximum nominal tank capacity stated in the equipment description. [District Rule 2201] Federally Enforceable Through Title V Permit
- 10. The operator shall record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694, 6.4.2] Federally Enforceable Through Title V Permit
- 11. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
- 12. Total annual VOC emissions from permit units N-266-776 through -783, calculated on a rolling 12-month total basis, shall not exceed 5,000 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
- 13. Total annual VOC emissions from all wine fermentation and wine storage operations at this facility, calculated on a rolling 12-month total basis, shall not exceed 394,298 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
- 14. Total annual VOC emissions from wine storage operations shall be determined either as the sum of the emissions for each individual wine movement based on the volume transferred in each wine movement and the batch-specific wine storage emission factor calculated using the equation(s) specified within this permit; or as the emissions for total annual wine movements and a single storage emissions factor, calculated using the equation(s) specified within this permit, based on the average ethanol content of the total annual wine movements. [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 %, a = -4.5139E-5, b = 0.01088 and c = 0. [District Rule 2201] Federally Enforceable Through Title V Permit
- 16. Records of the 12-month rolling total fermentation and total storage emissions, including calculation methods and parameters used, shall be maintained. [District Rule 1070 and 2201] Federally Enforceable Through Title V Permit
- 17. The permittee shall maintain the following records: red wine and white wine produced by fermentation at this facility, based on values reported to the Alcohol and Tobacco Tax and Trade Bureau (TTB), U.S. Department of the Treasury; the volume and the ethanol concentration of each wine movement; and the calculated 12 month rolling VOC emission rate (lb-VOC per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
- 18. If the emissions calculated for any rolling 12-month period exceed the annual emissions 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 annual emissions limit for that rolling 12-month period will be deemed to have occurred so long as the calendar year emissions are below the annual emissions limitation. [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



AUTHORITY TO CONSTRUCT

ISSUAN

PERMIT NO: N-266-781-0

LEGAL OWNER OR OPERATOR: DELICATO VINEYARDS

MAILING ADDRESS:

12001 S HIGHWAY 99 MANTECA, CA 95336

LOCATION:

12001 S HIGHWAY 99

MANTECA, CA 95336

EQUIPMENT DESCRIPTION:

60,000 GALLON (OR EQUIVALENT) WINE STORAGE TANK (TANK #241) 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 16 feet in diameter and 40 feet in height with a proposed volume of 60,000 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]
- 5. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694, 5.2.1] 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.

Seved Sadredin, Executive Director & APCO

- 6. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694, 5.2.1] Federally Enforceable Through Title V Permit
- 7. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rules 2201 and 4694, 5.2.2] Federally Enforceable Through Title V Permit
- 8. The ethanol content of wine stored in this tank shall not exceed 20 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
- 9. The daily tank throughput, in gallons, shall not exceed ten times the maximum nominal tank capacity stated in the equipment description. [District Rule 2201] Federally Enforceable Through Title V Permit
- 10. The operator shall record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694, 6.4.2] Federally Enforceable Through Title V Permit
- 11. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
- 12. Total annual VOC emissions from permit units N-266-776 through -783, calculated on a rolling 12-month total basis, shall not exceed 5,000 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
- 13. Total annual VOC emissions from all wine fermentation and wine storage operations at this facility, calculated on a rolling 12-month total basis, shall not exceed 394,298 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
- 14. Total annual VOC emissions from wine storage operations shall be determined either as the sum of the emissions for each individual wine movement based on the volume transferred in each wine movement and the batch-specific wine storage emission factor calculated using the equation(s) specified within this permit; or as the emissions for total annual wine movements and a single storage emissions factor, calculated using the equation(s) specified within this permit, based on the average ethanol content of the total annual wine movements. [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 %, a = -4.5139E-5, b = 0.01088 and c = 0. [District Rule 2201] Federally Enforceable Through Title V Permit
- 16. Records of the 12-month rolling total fermentation and total storage emissions, including calculation methods and parameters used, shall be maintained. [District Rule 1070 and 2201] Federally Enforceable Through Title V Permit
- 17. The permittee shall maintain the following records: red wine and white wine produced by fermentation at this facility, based on values reported to the Alcohol and Tobacco Tax and Trade Bureau (TTB), U.S. Department of the Treasury; the volume and the ethanol concentration of each wine movement; and the calculated 12 month rolling VOC emission rate (lb-VOC per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
- 18. If the emissions calculated for any rolling 12-month period exceed the annual emissions 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 annual emissions limit for that rolling 12-month period will be deemed to have occurred so long as the calendar year emissions are below the annual emissions limitation. [District Rule 2201] Federally Enforceable Through Title V Permit
- 19. Records shall be maintained that demonstrate the date by each year's start of crush season. [District Rule 2201] Federally Enforceable Through Title V Permit



AUTHORITY TO CONSTRUCT

PERMIT NO: N-266-782-0

LEGAL OWNER OR OPERATOR: DELICATO VINEYARDS

MAILING ADDRESS:

DELICATO VINEYARDS 12001 S HIGHWAY 99

MANTECA, CA 95336

LOCATION:

12001 S HIGHWAY 99

MANTECA, CA 95336

EQUIPMENT DESCRIPTION:

60,000 GALLON (OR EQUIVALENT) WINE STORAGE TANK (TANK #244) 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 16 feet in diameter and 40 feet in height with a proposed volume of 60,000 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]
- 5. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694, 5.2.1] 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 Dikector (APCO

Arnaud Marjollet, Director of Permit Services

- 6. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694, 5.2.1] Federally Enforceable Through Title V Permit
- 7. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rules 2201 and 4694, 5.2.2] Federally Enforceable Through Title V Permit
- 8. The ethanol content of wine stored in this tank shall not exceed 20 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
- 9. The daily tank throughput, in gallons, shall not exceed ten times the maximum nominal tank capacity stated in the equipment description. [District Rule 2201] Federally Enforceable Through Title V Permit
- 10. The operator shall record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694, 6.4.2] Federally Enforceable Through Title V Permit
- 11. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
- 12. Total annual VOC emissions from permit units N-266-776 through -783, calculated on a rolling 12-month total basis, shall not exceed 5,000 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
- 13. Total annual VOC emissions from all wine fermentation and wine storage operations at this facility, calculated on a rolling 12-month total basis, shall not exceed 394,298 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
- 14. Total annual VOC emissions from wine storage operations shall be determined either as the sum of the emissions for each individual wine movement based on the volume transferred in each wine movement and the batch-specific wine storage emission factor calculated using the equation(s) specified within this permit; or as the emissions for total annual wine movements and a single storage emissions factor, calculated using the equation(s) specified within this permit, based on the average ethanol content of the total annual wine movements. [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 %, a = -4.5139E-5, b = 0.01088 and c = 0. [District Rule 2201] Federally Enforceable Through Title V Permit
- 16. Records of the 12-month rolling total fermentation and total storage emissions, including calculation methods and parameters used, shall be maintained. [District Rule 1070 and 2201] Federally Enforceable Through Title V Permit
- 17. The permittee shall maintain the following records: red wine and white wine produced by fermentation at this facility, based on values reported to the Alcohol and Tobacco Tax and Trade Bureau (TTB), U.S. Department of the Treasury; the volume and the ethanol concentration of each wine movement; and the calculated 12 month rolling VOC emission rate (lb-VOC per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
- 18. If the emissions calculated for any rolling 12-month period exceed the annual emissions 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 annual emissions limit for that rolling 12-month period will be deemed to have occurred so long as the calendar year emissions are below the annual emissions limitation. [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



AUTHORITY TO CONSTRUCT

ISSUANC

PERMIT NO: N-266-783-0

LEGAL OWNER OR OPERATOR: DELICATO VINEYARDS

MAILING ADDRESS:

12001 S HIGHWAY 99

MANTECA, CA 95336

LOCATION:

12001 S HIGHWAY 99 MANTECA, CA 95336

EQUIPMENT DESCRIPTION:

60,000 GALLON (OR EQUIVALENT) WINE STORAGE TANK (TANK #245) 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 16 feet in diameter and 40 feet in height with a proposed volume of 60,000 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]
- 5. This tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694, 5.2.1] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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Seyed Sadredin, Executive Dikector APCO

Arnaud Marjollet Director of Permit Services

- 6. The pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694, 5.2.1] Federally Enforceable Through Title V Permit
- 7. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rules 2201 and 4694, 5.2.2] Federally Enforceable Through Title V Permit
- 8. The ethanol content of wine stored in this tank shall not exceed 20 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
- 9. The daily tank throughput, in gallons, shall not exceed ten times the maximum nominal tank capacity stated in the equipment description. [District Rule 2201] Federally Enforceable Through Title V Permit
- 10. The operator shall record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694, 6.4.2] Federally Enforceable Through Title V Permit
- 11. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
- 12. Total annual VOC emissions from permit units N-266-776 through -783, calculated on a rolling 12-month total basis, shall not exceed 5,000 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
- 13. Total annual VOC emissions from all wine fermentation and wine storage operations at this facility, calculated on a rolling 12-month total basis, shall not exceed 394,298 pounds. [District Rule 2201] Federally Enforceable Through Title V Permit
- 14. Total annual VOC emissions from wine storage operations shall be determined either as the sum of the emissions for each individual wine movement based on the volume transferred in each wine movement and the batch-specific wine storage emission factor calculated using the equation(s) specified within this permit; or as the emissions for total annual wine movements and a single storage emissions factor, calculated using the equation(s) specified within this permit, based on the average ethanol content of the total annual wine movements. [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 %, a = -4.5139E-5, b = 0.01088 and c = 0. [District Rule 2201] Federally Enforceable Through Title V Permit
- 16. Records of the 12-month rolling total fermentation and total storage emissions, including calculation methods and parameters used, shall be maintained. [District Rule 1070 and 2201] Federally Enforceable Through Title V Permit
- 17. The permittee shall maintain the following records: red wine and white wine produced by fermentation at this facility, based on values reported to the Alcohol and Tobacco Tax and Trade Bureau (TTB), U.S. Department of the Treasury; the volume and the ethanol concentration of each wine movement; and the calculated 12 month rolling VOC emission rate (lb-VOC per 12 month rolling period, calculated monthly). [District Rule 2201] Federally Enforceable Through Title V Permit
- 18. If the emissions calculated for any rolling 12-month period exceed the annual emissions 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 annual emissions limit for that rolling 12-month period will be deemed to have occurred so long as the calendar year emissions are below the annual emissions limitation. [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

