San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

May 19, 2022

Mr. Justin McManis
McManis Family Vineyards
18700 E River Rd
Ripon, CA 95366

Re: Proposed ATC / Certificate of Conformity (Significant Mod)
Facility Number: N-9371
Project Number: N-1183142

Dear Mr. McManis:

Enclosed for your review is the District's analysis of an application for Authority to Construct for the facility identified above. You requested that a Certificate of Conformity with the procedural requirements of 40 CFR Part 70 be issued with this project. The proposed project is to allow red wine fermentation in twenty-four 36,600-gallon (each) existing wine storage tanks.

The notice of preliminary decision for this project has been posted on the District's website (www.valleyair.org). After addressing all comments made during the 30-day public notice and the 45-day EPA comment periods, the District intends to issue the Authority to Construct with a Certificate 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 Authority to Construct, the facility must submit an application to modify the Title V permit as an administrative amendment, in accordance with District Rule 2520, Section 11.5.

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

Thank you for your cooperation in this matter.

Sincerely,

Brian Clements
Director of Permit Services

Enclosures

cc: Courtney Graham, CARB (w/enclosure) via email
cc: Laura Yannayon, EPA (w/enclosure) via EPS

Samir Sheikh
Executive Director/Air Pollution Control Officer

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www.valleyair.org www.healthyairliving.com

San Joaquin Valley Air Pollution Control District

Authority to Construct Application Review

Add Wine Fermentation Capability to Existing Storage Tanks

Facility Name:	McManis Family Vineyards	Date:	May 16, 2022
Mailing Address:	18700 E River Road Ripon, CA 95366	Engineer:	Jag Kahlon
		Lead Engineer:	James Harader
Contact Person:	Justin McManis		
Telephone:	(209) 595-5913		
Fax:	N/A		
E-Mail:	justin@mcmanisfamilyvineyards.com		
Application #(s):	N-9371-344-1 through '-367-1		
Project #:	N-1183142		
Deemed NSR Complete:	October 26, 2021		

I. Proposal

McManis Family Vineyards has proposed to conduct red wine fermentation in twenty-four existing 100-ton (each) stainless steel tanks. Currently, these tanks are exclusively used to store wine.

McManis Family Vineyards was issued a Title V Permit in 2020. This modification can be classified as a Title V significant modification pursuant to Rule 2520, Sections 3.20 and 3.29, 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 ATC permits. McManis Family Vineyards must apply to administratively amend their Title V Operating Permit to include the requirements of the ATC permits issued with this project.

The draft Authority to Construct (ATC) permits are included in **Appendix A**.

II. Applicable Rules

Rule 2201	New and Modified Stationary Source Review Rule (8/15/19)
Rule 2410	Prevention of Significant Deterioration (6/16/11)
Rule 2520	Federally Mandated Operating Permits (8/15/19)
Rule 4001	New Source Performance Standards (4/14/99)
Rule 4002	National Emissions Standards for Hazardous Air Pollutants (5/20/04)
Rule 4101	Visible Emissions (2/17/05)
Rule 4102	Nuisance (12/17/92)
Rule 4623	Storage of Organic Liquids (5/19/05)
Rule 4694	Wine Fermentation and Storage Tanks (12/15/05)

Rule 4695 Brandy Aging and Wine Aging Operations (9/17/09)
CH&SC 41700 Health Risk Assessment
CH&SC 42301.6 School Notice
Public Resources Code 21000-21177: California Environmental Quality Act (CEQA)
California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000-15387: CEQA Guidelines

III. Project Location

The facility is located at 18700 E River Road in Ripon, California. The equipment will not be 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

McManis Family Vineyards produces both red and white table wines 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 via underground pipes 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 first 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 via underground pipes. 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 (red or white) 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 and releasing heat. Although fermentation temperatures vary widely depending upon the specific quality and style of the wine, temperature is typically controlled to maintain a temperature of 45-65^{o} F for white wine fermentation and 70-95^{o} F for red wine fermentation. The sugar content of the fermentation mass is measured in ^{o}Brix (weight %) and is typically 22-26^{o} for unfermented grape juice, dropping to 4^{o} or less for 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. Volatile Organic Compounds (VOC) are emitted during the fermentation process along with the carbon dioxide (CO_2). VOC primarily consists ethanol along with minor fermentation byproducts.

Following the completion of fermentation, wine is transferred directly to storage tanks. Red wine is first directed to the presses for separation of solids and then routed to the storage tanks. Tanks can potentially operate in either: (1) a fermentation operation during which the tank is vented directly to the atmosphere to release the evolved CO_2 byproduct from the fermentation reaction;

(2) a storage operation during which the tank is closed to minimize contact with air and refrigerated to preserve the wine; (3) or both fermentation and storage operations. Post-fermentation operations are conducted in the tanks including cold stabilization, racking, filtration, etc. which result in a number of inter-tank transfers of the wine during this period leading up to the bottling or bulk shipment of the finished product. Storage operations are conducted year-round. VOC emissions occur primarily as a result of the inter-tank wine transfers which occur during the post fermentation operations.

Note that the existing wine storage tanks are being modified to conduct red wine fermentation activity.

V. Equipment Listing

Pre-Project Equipment Description:
N-9371-344-0 through '-367-0: 36,600 GALLON STAINLESS STEEL WINE STORAGE TANK (TANK # XXXX) WITH PRESSURE/VACUUM VALVE AND INSULATION

Proposed Modification:
The applicant has requested to allow red wine fermentation in each tank under permits N-9371-344 through '-367.

N-9371-344-1 through '-367-1: MODIFICATION OF 36,600 GALLON STAINLESS STEEL WINE STORAGE TANK (TANK # XXXX) WITH PRESSURE/VACUUM VALVE AND INSULATION: ALLOW RED WINE FERMENTATION IN THIS TANK

Post-Project Equipment Description:
N-9371-344-1 through '-367-1: 36,600 GALLON STAINLESS STEEL RED WINE FERMENTATION AND STORAGE TANK (TANK # XXXX) WITH PRESSURE/VACUUM VALVE AND INSULATION

VI. Emission Control Technology Evaluation

Wine Fermentation:
The applicant has proposed to conduct red wine fermentation. During red wine fermentation, this winery maintains "must" (juice, pulp seeds) temperature below 95°F to produce desired quality of red wine. This temperature helps to maintain or prolong yeast activity over the desired time period to slowly convert most sugars in the fruit into alcohol. Maintaining this temperature reduces peak VOC emissions that would otherwise occur rapidly in a short time period in a tank without temperature control.

Wine Storage:
VOC 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. When wine storage tanks are insulated or located in a climate controlled building, breathing losses are considered to be negligible.

VII. General Calculations

A. Assumptions

- VOC (ethanol) emissions are the only pollutant of concern related to this project.
- Other assumptions will be stated as they are made during the analysis.

B. Emission Factors

1. Pre-Project Emission Factors (EF1)

N-9371-344-0 through '-367-0
Wine Storage:
Each permit limits the maximum ethanol content in the wine to 16% (by volume). The tanks are located in the Northern Region of the San Joaquin Valley. Per Table 1 in District FYI -114 (6/13/12), VOC emissions for red or white wine would be:

$EF1_{Storage}$ = 0.248 lb-VOC/1,000 gal of wine per day
= 0.143 lb-VOC/1,000 gal of wine per year

2. Post-Project Emission Factors (EF2)

N-9371-344-1 through '-367-1
Wine Storage:
The applicant is not proposing any changes to the ethanol content in wine. Therefore, EF2 will be same as EF1 for wine storage.

Wine Fermentation:
Per District FYI-114 (6/13/12), red wine fermentation emissions are as follows:

$EF2_{Red}$ = 3.46 lb-VOC/1,000 gal tank capacity per day
= 6.2 lb-VOC/1,000 gal fermented per year

C. Calculations

1. Pre-Project Potential to Emit (PE1)

N-9371-344-0 through '-367-0
Wine Storage:
Each tank is limited to 73,200 gal/day and 146,400 gallons/year. Thus,

PE1 = 0.248 lb-VOC/1,000 gallon of throughput x 73,200 gal/day
= 18.2 lb-VOC/day/tank

PE1 = 0.143 lb-VOC/1,000 gallon of throughput x 146,400 gal/yr/tank
= 21 lb-VOC/yr/tank

For the twenty-four tanks, the total potential emissions are:

PE1 = 21 lb-VOC/yr/tank x 24 tanks
= 504 lb-VOC/yr

Wine Fermentation:
Currently, wine fermentation is not permitted; therefore,

PE1 = 0 lb-VOC/day; 0 lb-VOC/yr

2. Post-Project Potential to Emit (PE2)

N-9371-344-1 through '-367-1
Wine Storage:
The applicant is not proposing any changes to the existing alcohol content or process rates. Therefore, PE2 will be same as PE1 for wine storage operation.

Wine Fermentation:
The applicant has proposed to conduct red wine fermentation in the 100-ton fermenters. During red wine making process, juice and solids (skins, pulp, seeds) are fermented by inoculating yeast. The applicant has proposed to ferment up to 186,000 gallons of wine per year in each tank. Thus,

PE2 = 3.46 lb-VOC/1,000 gal tank capacity per day x 36,600 gal/day
= 126.6 lb-VOC/day/tank

= 6.2 lb-VOC/1,000 gal wine fermented x 186,000 gal-wine fermented/yr
= 1,153 lb-VOC/yr/tank

Total VOC emissions for all twenty-four tanks would be:

PE2 = 1,153 lb-VOC/yr/tank x 24 tanks
= 27,672 lb-VOC/yr

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

Pursuant to District Rule 2201, the SSPE1 is the Potential to Emit (PE) from all units with valid Authorities to Construct (ATC) or Permits to Operate (PTO) at the Stationary Source and the quantity of Emission Reduction Credits (ERC) which have been banked since September 19, 1991 for Actual Emissions Reductions (AER) that have occurred at the source, and which have not been used on-site. Except for the potential emissions for permits N-9371-344-0 through '-367-0, the potential emissions are taken from the application review under project N-1204384.

SSPE1 (lb/year)					
Permit Unit	**NO_X**	**SO_X**	**PM_{10}**	**CO**	**VOC**
N-9371-1-0 through '-307-0	0	0	0	0	84,808
N-9371-344-0 through '-367-0	**0**	**0**	**0**	**0**	**504**
N-9371-368-0 through '-421-0	0	0	0	0	1,662
N-9371-422-0 through '-440-0	0	0	0	0	1,613
ERC	0	0	0	0	0
SSPE1	**0**	**0**	**0**	**0**	**88,587**

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

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

SSPE2 (lb/year)					
Permit Unit	**NO_X**	**SO_X**	**PM_{10}**	**CO**	**VOC**
N-9371-1-0 through '-307-0	0	0	0	0	84,808
N-9371-344-0 through '-367-0	0	0	0	0	**28,176 (504+27,672)**
N-9371-368-0 through '-421-0	0	0	0	0	1,662
N-9371-422-0 through '-440-0					1,613
ERC	0	0	0	0	0
SSPE2	**0**	**0**	**0**	**0**	**116,259**

5. Major Source Determination

Rule 2201 Major Source Determination:

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

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

Rule 2201 Major Source Determination (lb/year)						
	NO_X	SO_X	PM_{10}	*$PM_{2.5}$	CO	VOC
SSPE1	0	0	0	0	0	88,587
SSPE2	0	0	0	0	0	116,259
Major Source Threshold	20,000	140,000	140,000	140,000	200,000	20,000
Major Source?	No	No	No	No	No	Yes

*$PM_{2.5}$ are assumed to be equal to PM_{10}

As seen in the table above, the facility is an existing Major Source for VOC emissions and will remain a Major Source VOC emissions.

Rule 2410 Major Source Determination:

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

PSD Major Source Determination (tons/year)						
	NO_2	VOC	SO_2	CO	PM	PM_{10}
Estimated Facility PE before Project Increase	0.0	44.3	0.0	0.0	0.0	0.0
PSD Major Source Thresholds	250	250	250	250	250	250
PSD Major Source?	No	No	No	No	No	No

As shown above, the facility is not an existing PSD major source for any regulated NSR pollutant expected to be emitted at this facility.

6. Baseline Emissions (BE)

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

Pursuant to District Rule 2201, BE = PE1 for:

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

Otherwise,

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

N-9371-344 through '-367:
Since wine fermentation is not permitted for these tanks, BE is equal to zero for VOC emissions.

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."

Per section VII.C.5 above, this facility is a Major Source for VOC emissions. This project's PE2 is compared to the SB 288 Major Modification Thresholds in the following table in order to determine if the SB 288 Major Modification calculation is required.

SB 288 Major Modification Thresholds			
Pollutant	**Project PE2 (lb/year)**	**Threshold (lb/year)**	**SB 288 Major Modification Calculation Required?**
VOC	28,176*	50,000	No

*PE2 includes both storage and fermentation emissions

As seen in the above table, SB 288 Major Modification Thresholds are not surpassed with this project, this project does not constitute an SB 288 Major Modification.

8. Federal Major Modification/New Major Source

District Rule 2201 states that a Federal Major Modification is the same as a "Major Modification" as defined in 40 CFR 51.165 and part D of Title I of the CAA.

As defined in 40 CFR 51.165, Section (a)(1)(v) and part D of Title I of the CAA, a Federal Major Modification is 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. The significant net emission increase threshold for each criteria pollutant is included in Rule 2201.

The determination of Federal Major Modification is based on a two-step test. For the first step, only the emission *increases* are counted. In step 1, emission decreases cannot cancel out the increases. Step 2 allows consideration of the project's net emissions increase as described in 40 CFR 51.165 and the Federal Clean Air Act Section 182 (e), as applicable.

Step 1: Project Emissions Increase

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

Emission Increase = ΣPE2

Wine fermentation in tanks (permits N-9371-344 through '-367) is a new operation. The combined total fermentation VOC emissions from these tanks are 27,672 pounds per year. This project's emission increases are compared to the Federal Major Modification Thresholds in the following table

Federal Major Modification Thresholds for Emission Increases			
Pollutant	**Total Emissions Increases (lb/yr)**	**Thresholds (lb/yr)**	**Federal Major Modification?**
VOC	27,672	0	Yes

Since there is an increase in VOC emissions, this project constitutes a Federal Major Modification. Consequently, as discussed below in the offset section of this evaluation, pursuant to Section 7.4.2.1 of District Rule 2201, VOC Emission Reduction Credits (ERCs) used to satisfy the offset quantity required under District Rule 2201 must surplus at the time of use (ATC issuance).

Separately, Federal Offset Quantity is calculated below.

Federal Offset Quantity Calculation

The Federal Offset Quantity (FOQ) is only calculated for the pollutants for which a project is a Federal Major Modification or a New Major Source as determined above.

Pursuant to 40 CFR 51.165(a)(3)(ii)(J), the federal offset quantity is the sum of the annual emission changes for all new and modified emission units in a project calculated as the potential to emit after the modification (PE2) minus the actual emissions (AE) for each emission unit times the applicable federal offset ratio.

FOQ = ∑(PE2 – AE) x Federal offset ratio

As described in 40 CFR 51.165(a)(1)(xii), actual emissions (AE), as of a particular date, shall equal the average rate, in tons per year, at which the unit actually emitted the pollutant during a consecutive 24-month period which precedes the particular date and which is representative of normal source operation. The reviewing authority shall allow the use of a different time period upon a determination that it is more representative of normal source operation.

Actual Emissions (AE)
Wine fermentation in tanks (permits N-9371-344 through '-367) is a new operation. Therefore, AE is zero for VOC emissions for these tanks.

Federal Offset Ratio
According the CAA 182(e), the federal offset ratio for VOC and NOx is 1.5 to 1 (due to the District extreme non-attainment status for ozone).

Federal Offset Quantity (FOQ)
As discussed above, AE is zero and Federal Offset Ratio is 1.5, the FOQ would be:

FOQ = PE2 x 1.5

Pollutant: VOC		**Federal Offset Ratio**	**1.5**
Permit No.	**Post-Project Potential to Emit (PE2) – Wine Fermentation Operation (lb/year)**	**Actual Emissions (lb/year)**	**Emissions Change (lb/yr)**
N-9371-344-1 through '-367-1	27,672	0	27,672
	∑(PE2 – AE) (lb/year):		**27,672**
	Federal Offset Quantity (lb/year): ∑(PE2 – AE) x 1.5		**41,508**
Federal Offset Quantity (tons/year): ∑(PE2 – AE) x 1.5 ÷ 2,000			**20.8**

New Major Source

Pursuant to 40 CFR 51.165 a(1)(iv)(A)(3), emission increases at a non-major source (or at new sources) constitute a New Major Source if the emission increase for a given pollutant is as large as the major source threshold for that pollutant, i.e. the project by itself would result in a net emission increase exceeding the major source threshold.

The emissions increase occurs at an existing Major Source. As such, new major source determination is not required.

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

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

- VOC

I. Project Emissions Increase - New Major Source Determination

The post-project potentials to emit from all new and modified units are compared to the PSD major source thresholds to determine if the project constitutes a new major source subject to PSD requirements.

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

PSD Major Source Determination: Potential to Emit (tons/year)						
	NO_2	VOC	SO_2	CO	PM	PM_{10}
Total PE from New and Modified Units	0.0	14.1	0.0	0.0	0.0	0.0
PSD Major Source threshold	250	250	250	250	250	250
New PSD Major Source?	N	N	N	N	N	N

As shown in the table above, the potential to emit for the project, by itself, does not exceed any PSD major source threshold. Therefore Rule 2410 is not applicable and no further analysis 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. Detailed QNEC calculations are included in **Appendix D**.

VIII. Compliance Determination

Rule 2201 New and Modified Stationary Source Review Rule

A. Best Available Control Technology (BACT)

1. BACT Applicability

Pursuant to District Rule 2201, Section 4.1, BACT requirements are triggered on a pollutant-by-pollutant basis and on an emissions unit-by-emissions unit basis. Unless specifically exempted by Rule 2201, BACT shall be required for the following actions*:

a. Any new emissions unit with a potential to emit exceeding two pounds per day,
b. The relocation from one Stationary Source to another of an existing emissions unit with a potential to emit exceeding two pounds per day,

c. Modifications to an existing emissions unit with a valid Permit to Operate resulting in an Adjusted Increase in Permitted Emissions (AIPE) exceeding two pounds per day, and/or
d. Any new or modified emissions unit, in a stationary source project, which results in an SB 288 Major Modification or a Federal Major Modification, as defined by the rule.
*Except for CO emissions from a new or modified emissions unit at a Stationary Source with an SSPE2 of less than 200,000 pounds per year of CO.

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

As seen in Section VII.C.2 above, the potential emissions from each tank when operated in a wine fermentation mode are greater than 2 lb/day for VOC emissions. Thus, each tank triggers BACT for VOC emissions from fermentation process.

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

None of the emissions units are being relocated from one stationary source to another; therefore, BACT is not triggered.

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

None of the emissions units are being modified in this project; therefore, BACT is not triggered.

d. SB 288/Federal Major Modification

As discussed in Sections VII.C.7 and VII.C.8 above, this project constitute a Federal Major Modification for VOC. Therefore, BACT is triggered for VOC emissions.

2. BACT Guideline

BACT Guideline 5.4.14 applies to wine fermentation tanks. This guideline is included in **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 (see **Appendix C**), BACT has been satisfied with the following:

VOC: Temperature controlled open top tank with maximum average fermentation temperature of 95°F

During wine fermentation process, the facility is required to maintain temperature in a way that it would exceed 95°F. Therefore, each tank when operated in fermentation mode is expected to comply with this BACT requirement.

- The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201]

B. Offsets

1. Offset Applicability

Pursuant to District Rule 2201, Section 4.5, offset requirements shall be triggered on a pollutant by pollutant basis and shall be required if the SSPE2 equals or exceeds the offset threshold levels in Table 4-1 of Rule 2201. The SSPE2 is compared to the offset thresholds in the following table.

Offset Determination (lb/year)					
	NO_X	**SO_X**	**PM_{10}**	**CO**	**VOC**
SSPE2	0	0	0	0	116,259
Offset Thresholds	20,000	54,750	29,200	200,000	20,000
Offsets triggered?	No	No	No	No	Yes

2. Quantity of District Offsets Required

As seen above, the SSPE2 is greater than the offset thresholds for VOC emissions only. Therefore offset calculations will be required for this project.

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

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

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

BE = PE1 for:

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

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

Otherwise,

BE = HAE

As seen in section VII.C.6, BE for each tank is zero for fermentation operation. There are no increases in cargo carrier emissions due to this project. Therefore,

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

VOC Offsets Required for Wine Fermentation Process without DOR				
Permit#	**Annual PE2, per Tank (lb/yr)**	**Annual BE, each (lb/yr)**	**Offsets Required, per Tank (lb/yr)**	**Offsets Required for all 24 Tanks (lb/yr)**
N-9371-344-1 through '-367-1	1,153	0	1,153	27,672
			Total District Offsets Required without DOR:	27,672

In accordance with Rule 2201, Section 4.8.1, the DOR for VOC offsets for projects that trigger federal major modifications shall be 1.5:1.

As seen in Section VII.C.8 above, this project triggers a federal major modification for VOC emissions. Therefore, the DOR of 1.5:1 will be used.

VOC Offsets Required for Wine Fermentation Process with DOR				
Permit#	**Offsets Required, per Tank (lb/yr)**	**DOR**	**Total Offsets Required, per Tank (lb/yr)**	**Offsets Required for all 24 Tanks (lb/yr)**
N-9371-344-1 through '-367-1	1,153	1.5	1,730	41,520
			Total District Offsets Required with DOR:	41,520

The wine fermentation operation is a seasonal activity that typically occurs from August through October each year in the San Joaquin Valley. Therefore, approximately 2/3 of the fermentation emissions occur during 3rd quarter and the remaining 1/3 of the fermentation emissions occur in the 4th quarter each season in a given year. This means, quarterly emissions for this operation would be:

Q1: 0
Q2: 0

Q3: 2/3 x Total Offsets Required per Tank
Q4: 1/3 x Total Offsets Required per Tank

Quarterly VOC Offsets Required for Wine Fermentation Process				
Permit#	**Offsets Required, per Tank (lb/Q1)**	**Offsets Required, per Tank (lb/Q2)**	**Offsets. Required, per Tank (lb/Q3)**	**Offsets Required, per Tank (lb/Q4)**
N-9371-344-1 through '-367-1	0	0	1,153	577
Total District Offsets required for all Tanks	0	0	27,672	13,848

The applicant has proposed to use ERC certificate N-1559-1 to offset the increases in VOC emissions associated with this project. The quarterly amount of credits in this ERC are summarized in the table below:

Quarterly Credits in Proposed ERC				
ERC Number	**Q1 (lb)**	**Q2 (lb)**	**Q3 (lb)**	**Q4 (lb)**
ERC N-1559-1	13,752	22,879	14,803	14,093

Per section 4.13.8 of Rule 2201, Actual Emission Reductions for VOC that occurred from April through November (Q2, Q3 and November of Q4) may be used to offset increases in VOC during any period of the year. Thus, to overcome credit shortfall in the 3rd quarter, 12,869 lb of ERC N-1559-1 will be moved from the 2nd quarter to the 3rd quarter. After re-balancing, the ERCs would appear as:

Quarterly Credits in Proposed ERC after Adjustments				
ERC Number	**Q1 (lb)**	**Q2 (lb)**	**Q3 (lb)**	**Q4 (lb)**
ERC N-1559-1	13,752	22,879	14,803	14,093
Moving Q2 excess to Q3	--	-12,869	+12,869	--
ERC after readjustment	13,752	10,010	27,672	14,093
Total Offsets Required	0	0	27,672	13,848

Thus, the available ERCs in 3rd and 4th quarter are sufficient to cover required offset amount; therefore, it is concluded that the applicant has proposed sufficient credits to fully offset the quarterly VOC emissions increases associated with this project.

As discussed above, District offsets are triggered and required for VOC under NSR. In addition, as demonstrated above, this project does trigger Federal Major Modification requirements for VOC emissions.

Since both District offsets and federal offsets are required, the facility must provide offset amounts equal to the greatest value between the District offset quantity and the federal offset quantity.

Comparison of District vs Federal VOC Offset Quantity			
Pollutant	**DOQ**	**FOQ**	**DOQ > FOQ**
VOC	41,520	41,508	**Yes**

As demonstrated above, the District offset quantity required is greater than the federal offset quantity. Therefore, by satisfying the District offset quantities, the facility will satisfy the required federal offset quantities. In addition, pursuant to Section 7.4.2.1 of District Rule 2201, emission reduction credits used to satisfy federal offset quantities for VOC must be creditable and surplus at the time of use (ATC issuance).

Surplus at the Time Of Use Emission Reduction Credits

The applicant has stated that the facility plans to use ERC certificate N-1559-1 to satisfy the federal offset quantities for VOC required for this project. Pursuant to the ERC surplus analysis in **Appendix I**, the District has verified that the credits from ERC certificate N-1559-1 are sufficient to satisfy the federal offset quantities for VOC required for this project.

Proposed Rule 2201 (offset) Conditions:

N-9371-344-1 through '-367-1

- Prior to operating equipment under this Authority to Construct permit, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 0 lb, 2nd quarter – 0 lb, 3rd quarter – 1,153 lb, and 4th quarter - 577 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 8/15/19) for the ERC specified below. [District Rule 2201]

- ERC Certificate Number N-1559-1 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]

3. ERC Withdrawal Calculations

The applicant must identify the ERC Certificate(s) to be used to offset the increase of VOC emissions for the project. As indicated in a previous section of this evaluation, the applicant is proposing to use ERC certificate N-1559-1 (or a certificate split from this certificate) to mitigate the increases of VOC emissions associated with this project. See **Appendix G** for detailed ERC Withdrawal Calculations.

C. Public Notification

1. Applicability

Pursuant to District Rule 2201, Section 5.4, public noticing is required for:

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

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

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

As demonstrated in Sections VII.C.8 above, this project constitute a Federal Major Modification; 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, the potential emissions from each tank when operated as a red wine fermenter are greater than 100 lb/day for VOC emissions. Thus, public notice is required under this section.

c. Offset Threshold

Public notification is required if the pre-project Stationary Source Potential to Emit (SSPE1) is increased to a level exceeding the offset threshold levels. The following table compares the SSPE1 with the SSPE2 in order to determine if any offset thresholds have been surpassed with this project.

Offset Thresholds				
Pollutant	**SSPE1 (lb/year)**	**SSPE2 (lb/year)**	**Offset Threshold**	**Public Notice Required?**
NO_X	0	0	20,000 lb/year	No
SO_X	0	0	54,750 lb/year	No
PM_{10}	0	0	29,200 lb/year	No
CO	0	0	200,000 lb/year	No
VOC	88,587	116,259	20,000 lb/year	No

As detailed above, VOC emissions are already above the thresholds prior to this project; therefore, public noticing is not required for offset purposes.

d. SSIPE > 20,000 lb/year

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

SSIPE Public Notice Thresholds					
Pollutant	**SSPE2 (lb/year)**	**SSPE1 (lb/year)**	**SSIPE (lb/year)**	**SSIPE Public Notice Threshold**	**Public Notice Required?**
NO_x	0	0	0	20,000 lb/year	No
SO_x	0	0	0	20,000 lb/year	No
PM_{10}	0	0	0	20,000 lb/year	No
CO	0	0	0	20,000 lb/year	No
VOC	116,259	88,587	27,672	20,000 lb/year	Yes

As demonstrated above, the SSIPE for VOC exceeds 20,000 lb/year; therefore public noticing for SSIPE purposes is required.

e. Title V Significant Permit Modification

The proposed project is a Title V significant Modification, and therefore public noticing is required.

2. Public Notice Action

As discussed above, the proposed project exceeded thresholds of multiple items including Federal Major Modification, new unit with potential emissions greater than 100 lb/day, and SSIPE above 20,000 lb/yr. Thus, this project requires a 30-day public notice. Public notice documents will be submitted to the California Air Resources Board (CARB)

and EPA, and interested parties for review and comments. Further, a public notice will be electronically published on the District's website prior to the issuance of the ATC permits.

D. Daily Emission Limits (DELs)

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

Proposed Rule 2201 (DEL) Conditions:

N-9371-344-1 through '-367-0:
Wine storage:

- The ethanol content of wine stored in this tank shall not exceed 16 percent by volume. [District Rule 2201]

- Wine storage throughput in this tank shall not exceed any of the following: 73,200 gallons per day and 146,400 gallons per year (12-month rolling basis). [District Rule 2201]

Wine Fermentation:

- VOC emissions from red wine fermentation shall not exceed any of the following limits: 3.46 pounds per 1,000 gallon tank capacity per day and 6.2 pounds per 1,000 gallon of wine fermented per year. [District Rule 2201]

- The fermentation throughput for this tank shall not exceed 186,000 gallons of red wine during any one crush season in a given year. [District Rule 2201]

E. Compliance Assurance

1. Source Testing

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

2. Monitoring

No monitoring is required to demonstrate compliance with Rule 2201.

3. Recordkeeping

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

- When this tank is used for wine storage, 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 2201 and 4694]

- For each batch of must fermented in the tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694]

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

4. Reporting

No reporting is required to demonstrate compliance with Rule 2201.

F. Ambient Air Quality Analysis (AAQA)

Per Section 4.14 of Rule 2201, ambient air quality analysis (AAQA) shall be conducted for the purpose of determining whether a new or modified Stationary Source will cause or make worse the violation of an Ambient Air Quality Standard (AAQS).

This project involves only VOC (ethanol) emissions for which AAQS does not exist; therefore, AAQA is not performed for this project.

G. Compliance Certification

Section 4.15.2 of this Rule requires the owner of a new Major Source or a source undergoing a Federal Major Modification to demonstrate to the satisfaction of the District that all other Major Sources owned by such person and operating in California are in compliance or are on a schedule for compliance with all applicable emission limitations and standards.

As discussed in Section VIII above, this project does constitute a Federal Major Modification, therefore this requirement is applicable. A copy of the compliance certification letter is included in **Appendix F** of this document.

Compliance is expected with this rule.

Rule 2410 Prevention of Significant Deterioration

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

Rule 2520 Federally Mandated Operating Permits

This facility is subject to this Rule, and has received their Title V Operating Permit. A significant permit modification is defined as a "permit amendment that does not qualify as a minor permit modification or administrative amendment." The proposed project is a Significant Modification to the Title V permit since this project triggers a Federal Major Modification under Rule 2201.

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. The following permit conditions will be included in each permit to ensure compliance with this rule:

- 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]

- 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]

Compliance is expected with this rule.

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 or fermentation 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 or fermentation operations.

Rule 4101 Visible Emissions

Rule 4101 states that no person shall discharge into the atmosphere emissions of any air contaminant aggregating more than 3 minutes in any hour which is as dark as or darker than Ringelmann 1 (or 20% opacity). Visible emissions are not expected as a result of these wine storage operations. Therefore, compliance with this rule is expected.

Rule 4102 Nuisance

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

operations, provided the equipment is well maintained. Therefore, compliance with this rule is expected. Therefore, compliance with this rule is expected. The following condition will be included in each permit:

- 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.

District policy APR 1905 also specifies that the increase in emissions associated with a proposed new source or modification of an existing source shall not result in an increase in cancer risk greater than the District's significance level (20 in a million) and shall not result in acute and/or chronic risk indices greater than 1.

According to the Technical Services Memo for this project, the total facility prioritization score including this project was greater than one. Therefore, an HRA was required to determine the short-term acute and long-term chronic exposure from this project.

The resulting prioritization score, acute hazard index, chronic hazard index, and cancer risk for this project is shown below (refer to **Appendix H** for Health Risk Assessment Summary memo).

Health Risk Assessment Summary	
	Worst Case Potential
Prioritization Score	1.91
Cancer Risk	1.51E-07
Acute Hazard Index	0.27
Chronic Hazard Index	0.00
T-BACT Required?	No

Discussion of T-BACT

BACT for toxic emission control (T-BACT) is required if the cancer risk exceeds one in one million. As demonstrated above, T-BACT is not required for this project because the HRA indicates that the risk is not above the District's thresholds for triggering T-BACT requirements; therefore, compliance with the District's Risk Management Policy is expected.

The following permit condition was suggested to ensure compliance with the assumptions made for the risk management review:

- When this tank is used as a fermenter, the exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]

The intent of this condition is to enforce the assumption of unrestricted vertically upward exhaust flow during fermentation. However, the proposed wine tanks do not have exhaust stacks per se. Rather, each proposed wine tank has a hatch located on top of the tank that must be opened during wine fermentation to prevent overpressurization in the tank due to the volume of fermentation gases produced, so the assumption of unrestricted vertically upward exhaust flow during fermentation is guaranteed by the tanks' physical design. Thererfore, the above permit condition is not necessary and will not be included in the permits.

Compliance is expected with this rule.

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 used to conduct wine fermentation and storage operations. Therefore, this rule does not apply.

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.

Baseline fermentation emissions (BFE) are the average annual uncontrolled fermentation emissions for the three previous consecutive years of fermentation activities.

As noted in the application review under project N-1183428, the total BFE are greater than 20,000 lb-VOC/year, this facility is subject to the requirements of this rule.

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). Per the definition of RAER in Section 3.25 of the Rule, the RAER may be achieved by any combination of Fermentation Emission Reductions (FER), Certified Emission Reductions (CER) or District Obtained Emission Reductions (DOER) as established in the facility's District-approved Rule 4694 Compliance Plan. The following condition(s) in Permit to Operate N-9371-0-0 ensures on-going compliance with the requirements of this section:

- A Three-Year Compliance Plan that demonstrates compliance with the requirements of Section 5.1 of District Rule 4694 (12/15/05) for each year of the applicable compliance period shall be submitted to the District by no later than December 1, 2019, and every three years thereafter on or before December 1. [District Rule 4694]

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

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

The following conditions will be listed in the permits to ensure compliance with the requirements with this section:

- When this tank is used for wine storage, the 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]

- When this tank is used for wine storage, the pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694]

Section 5.2.2 requires that the temperature of the stored wine be maintained at or below 75° F. The following conditions will be listed in the permits to ensure compliance with the requirements with this section:

- When this tank is used for wine storage, 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]

Section 6.1 and 6.2 require the facility to submit a Three-Year Compliance Plan and a Three-Year Compliance Plan Verification respectively. Section 6.3 requires that an Annual Compliance Plan Demonstration be submitted to the District no later than February 1 of each year to show compliance with the applicable requirements of the Rule. Section 6.4.3 requires that all monitoring be performed for any Certified Emission Reductions as identified in the facility's Three-Year Compliance Plan and that the records of all monitoring be maintained. The following condition(s) in Permit to Operate N-9371-0-0 ensures on-going compliance with the requirements of this section:

- A Three-Year Compliance Plan that demonstrates compliance with the requirements of Section 5.1 of District Rule 4694 (12/15/05) for each year of the applicable compliance period shall be submitted to the District by no later than December 1, 2019, and every three years thereafter on or before December 1. [District Rule 4694]

- A Three-Year Compliance Plan Verification that demonstrates that the Three-Year Compliance Plan elements are in effect shall be submitted to the District by no later than July 1, 2020, and every three years thereafter on or before July 1. [District Rule 4694]

- An Annual Compliance Plan Demonstration that shows compliance with the applicable requirements of this rule shall be submitted to the District by no later than February 1, 2021, and every year thereafter on or before February 1. [District Rule 4694]

- Operators using Certified Emission Reductions (CER) to mitigate fermentation emissions shall perform all monitoring and recordkeeping, as established in their approved Three-Year Compliance Plan, and shall maintain all records necessary to demonstrate compliance. [District Rule 4694]

Section 6.4.1 requires that records be kept for each fermentation batch. The following condition will be listed in the permits to ensure on-going compliance with this section:

- For each batch of must fermented in the tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694]

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

- When this tank is used for wine storage, the operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rules 2201 and 4694]

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

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

Compliance is expected with this Rule.

Rule 4695 Brandy Aging and Wine Aging Operations

The purpose of this rule is to limit volatile organic compound (VOC) emissions from brandy aging and wine aging operations. Brandy aging and wine aging operations are not conducted at this site. Therefore, this winery is not subject to the requirements of this rule.

California Health & Safety Code 42301.6 (School Notice)

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

California Environmental Quality Act (CEQA)

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

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

District CEQA Findings

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.

Pursuant to CEQA Guidelines §15250, the District is a Responsible Agency for the Project via its Permits Rule (Rule 2010) and New Source Review Rule (Rule 2201), (CEQA Guidelines §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. Furthermore, the District has conducted an engineering evaluation of the project, this document, which demonstrates that Stationary Source emissions from the project would be below the District's thresholds of significance for criteria pollutants. 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 will have a less than significant impact 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 ATCs N-9371-344-1 through '-367-1 subject to the permit conditions on the attached draft ATCs in **Appendix A**.

X. Billing Information

Annual Permit Fees			
Permit Number	**Fee Schedule**	**Fee Description**	**Annual Fee**
N-9371-344-1 through '-367-1 (each)	3020-05 C	36,600 gallons	$165

Appendixes

A: Draft ATC Permits
B: BACT Guideline
C: BACT Analysis
D: Quarterly Net Emissions Change
E: FYI-114
F: Compliance Certification Letter
G: ERC Withdrawal Calculations
H: Risk Management Review Summary
I: ERC Surplus Analysis

Appendix A
Draft ATC Permits

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: N-9371-344-1 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: MCMANIS FAMILY VINEYARDS
MAILING ADDRESS: 18700 E RIVER RD
RIPON, CA 95366

LOCATION: 18700 E RIVER RD
RIPON, CA 95366

EQUIPMENT DESCRIPTION:
MODIFICATION OF 36,600 GALLON STAINLESS STEEL WINE STORAGE TANK (TANK #AAA-1) WITH PRESSURE/VACUUM VALVE AND INSULATION: ALLOW RED WINE FERMENTATION IN THIS TANK

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. The Authority to Construct (ATC) permit N-9371-344-0 shall be implemented concurrently, or prior to the modification and startup of the equipment authorized by this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Prior to operating equipment under this Authority to Construct permit, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 0 lb, 2nd quarter - 0 lb, 3rd quarter - 1,153 lb, and 4th quarter - 577 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 8/15/19) for the ERC specified below. [District Rule 2201] 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.

Samir Sheikh, Executive Director / APCO

DRAFT

Brian Clements, Director of Permit Services
N-9371-344-1 : May 16 2022 3:01PM -- KAHLONJ : Joint Inspection NOT Required

5. ERC Certificate Number N-1559-1 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

7. The nominal tank dimensions are 17 feet 9 inches in diameter and 20 feet in height with a proposed volume of 36,600 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit

8. When this tank is used for wine storage, this tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

9. When this tank is used for wine storage, the pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

10. When this tank is used for wine storage, the temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

11. The ethanol content of wine stored in this tank shall not exceed 16.0 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Wine storage throughput in this tank shall not exceed any of the following: 73,200 gallons per day and 146,400 gallons per year (12-month rolling basis). [District Rule 2201] Federally Enforceable Through Title V Permit

13. When this tank is used for wine storage, 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 2201 and 4694] Federally Enforceable Through Title V Permit

14. The operator shall maintain records of annual wine storage throughput on a consecutive 12-month rolling basis. These records shall be updated at least on a monthly basis. [District Rule 2201] Federally Enforceable Through Title V Permit

15. When this tank is used for wine storage, the operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit

16. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit

17. VOC emissions from red wine fermentation shall not exceed any of the following limits: 3.46 pounds per 1,000 gallon tank capacity per day and 6.2 pounds per 1,000 gallon of wine fermented per year. [District Rule 2201] Federally Enforceable Through Title V Permit

18. The fermentation throughput for this tank shall not exceed 186,000 gallons per year (12-month rolling basis) during facility's seasonal crushing/fermentation period. [District Rule 2201] Federally Enforceable Through Title V Permit

19. The operator shall maintain records of annual wine fermentation throughput on a consecutive 12-month rolling basis. These records shall be updated at least on a monthly basis. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

20. If the fermentation throughput for any rolling 12-month period exceeds the annual throughput limitation of this permit in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitation. [District Rule 2201] Federally Enforceable Through Title V Permit

21. For each batch of must fermented in the tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

22. 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

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

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: N-9371-345-1 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: MCMANIS FAMILY VINEYARDS
MAILING ADDRESS: 18700 E RIVER RD
RIPON, CA 95366

LOCATION: 18700 E RIVER RD
RIPON, CA 95366

EQUIPMENT DESCRIPTION:
MODIFICATION OF 36,600 GALLON STAINLESS STEEL WINE STORAGE TANK (TANK #AAA-2) WITH PRESSURE/VACUUM VALVE AND INSULATION: ALLOW RED WINE FERMENTATION IN THIS TANK

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. The Authority to Construct (ATC) permit N-9371-345-0 shall be implemented concurrently, or prior to the modification and startup of the equipment authorized by this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Prior to operating equipment under this Authority to Construct permit, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 0 lb, 2nd quarter - 0 lb, 3rd quarter - 1,153 lb, and 4th quarter - 577 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 8/15/19) for the ERC specified below. [District Rule 2201] 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.

Samir Sheikh, Executive Director / APCO

DRAFT

Brian Clements, Director of Permit Services
N-9371-345-1 : May 16 2022 3:01PM -- KAHLONJ : Joint Inspection NOT Required

5. ERC Certificate Number N-1559-1 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

7. The nominal tank dimensions are 17 feet 9 inches in diameter and 20 feet in height with a proposed volume of 36,600 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit

8. When this tank is used for wine storage, this tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

9. When this tank is used for wine storage, the pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

10. When this tank is used for wine storage, the temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

11. The ethanol content of wine stored in this tank shall not exceed 16.0 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Wine storage throughput in this tank shall not exceed any of the following: 73,200 gallons per day and 146,400 gallons per year (12-month rolling basis). [District Rule 2201] Federally Enforceable Through Title V Permit

13. When this tank is used for wine storage, 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 2201 and 4694] Federally Enforceable Through Title V Permit

14. The operator shall maintain records of annual wine storage throughput on a consecutive 12-month rolling basis. These records shall be updated at least on a monthly basis. [District Rule 2201] Federally Enforceable Through Title V Permit

15. When this tank is used for wine storage, the operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit

16. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit

17. VOC emissions from red wine fermentation shall not exceed any of the following limits: 3.46 pounds per 1,000 gallon tank capacity per day and 6.2 pounds per 1,000 gallon of wine fermented per year. [District Rule 2201] Federally Enforceable Through Title V Permit

18. The fermentation throughput for this tank shall not exceed 186,000 gallons per year (12-month rolling basis) during facility's seasonal crushing/fermentation period. [District Rule 2201] Federally Enforceable Through Title V Permit

19. The operator shall maintain records of annual wine fermentation throughput on a consecutive 12-month rolling basis. These records shall be updated at least on a monthly basis. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

20. If the fermentation throughput for any rolling 12-month period exceeds the annual throughput limitation of this permit in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitation. [District Rule 2201] Federally Enforceable Through Title V Permit

21. For each batch of must fermented in the tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

22. 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

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

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: N-9371-346-1 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: MCMANIS FAMILY VINEYARDS
MAILING ADDRESS: 18700 E RIVER RD
RIPON, CA 95366

LOCATION: 18700 E RIVER RD
RIPON, CA 95366

EQUIPMENT DESCRIPTION:
MODIFICATION OF 36,600 GALLON STAINLESS STEEL WINE STORAGE TANK (TANK #AAA-3) WITH PRESSURE/VACUUM VALVE AND INSULATION: ALLOW RED WINE FERMENTATION IN THIS TANK

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. The Authority to Construct (ATC) permit N-9371-346-0 shall be implemented concurrently, or prior to the modification and startup of the equipment authorized by this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Prior to operating equipment under this Authority to Construct permit, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 0 lb, 2nd quarter - 0 lb, 3rd quarter - 1,153 lb, and 4th quarter - 577 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 8/15/19) for the ERC specified below. [District Rule 2201] 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.

Samir Sheikh, Executive Director / APCO

Brian Clements, Director of Permit Services
N-9371-346-1 : May 16 2022 3:01PM -- KAHLONJ : Joint Inspection NOT Required

5. ERC Certificate Number N-1559-1 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

7. The nominal tank dimensions are 17 feet 9 inches in diameter and 20 feet in height with a proposed volume of 36,600 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit

8. When this tank is used for wine storage, this tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

9. When this tank is used for wine storage, the pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

10. When this tank is used for wine storage, the temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

11. The ethanol content of wine stored in this tank shall not exceed 16.0 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Wine storage throughput in this tank shall not exceed any of the following: 73,200 gallons per day and 146,400 gallons per year (12-month rolling basis). [District Rule 2201] Federally Enforceable Through Title V Permit

13. When this tank is used for wine storage, 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 2201 and 4694] Federally Enforceable Through Title V Permit

14. The operator shall maintain records of annual wine storage throughput on a consecutive 12-month rolling basis. These records shall be updated at least on a monthly basis. [District Rule 2201] Federally Enforceable Through Title V Permit

15. When this tank is used for wine storage, the operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit

16. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit

17. VOC emissions from red wine fermentation shall not exceed any of the following limits: 3.46 pounds per 1,000 gallon tank capacity per day and 6.2 pounds per 1,000 gallon of wine fermented per year. [District Rule 2201] Federally Enforceable Through Title V Permit

18. The fermentation throughput for this tank shall not exceed 186,000 gallons per year (12-month rolling basis) during facility's seasonal crushing/fermentation period. [District Rule 2201] Federally Enforceable Through Title V Permit

19. The operator shall maintain records of annual wine fermentation throughput on a consecutive 12-month rolling basis. These records shall be updated at least on a monthly basis. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

20. If the fermentation throughput for any rolling 12-month period exceeds the annual throughput limitation of this permit in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitation. [District Rule 2201] Federally Enforceable Through Title V Permit

21. For each batch of must fermented in the tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

22. 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

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

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: N-9371-347-1 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: MCMANIS FAMILY VINEYARDS
MAILING ADDRESS: 18700 E RIVER RD
RIPON, CA 95366

LOCATION: 18700 E RIVER RD
RIPON, CA 95366

EQUIPMENT DESCRIPTION:
MODIFICATION OF 36,600 GALLON STAINLESS STEEL WINE STORAGE TANK (TANK #AAA-4) WITH PRESSURE/VACUUM VALVE AND INSULATION: ALLOW RED WINE FERMENTATION IN THIS TANK

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. The Authority to Construct (ATC) permit N-9371-347-0 shall be implemented concurrently, or prior to the modification and startup of the equipment authorized by this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Prior to operating equipment under this Authority to Construct permit, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 0 lb, 2nd quarter - 0 lb, 3rd quarter - 1,153 lb, and 4th quarter - 577 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 8/15/19) for the ERC specified below. [District Rule 2201] 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.

Samir Sheikh, Executive Director / APCO

DRAFT

Brian Clements, Director of Permit Services
N-9371-347-1 : May 16 2022 3:01PM -- KAHLONJ : Joint Inspection NOT Required

5. ERC Certificate Number N-1559-1 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

7. The nominal tank dimensions are 17 feet 9 inches in diameter and 20 feet in height with a proposed volume of 36,600 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit

8. When this tank is used for wine storage, this tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

9. When this tank is used for wine storage, the pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

10. When this tank is used for wine storage, the temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

11. The ethanol content of wine stored in this tank shall not exceed 16.0 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Wine storage throughput in this tank shall not exceed any of the following: 73,200 gallons per day and 146,400 gallons per year (12-month rolling basis). [District Rule 2201] Federally Enforceable Through Title V Permit

13. When this tank is used for wine storage, 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 2201 and 4694] Federally Enforceable Through Title V Permit

14. The operator shall maintain records of annual wine storage throughput on a consecutive 12-month rolling basis. These records shall be updated at least on a monthly basis. [District Rule 2201] Federally Enforceable Through Title V Permit

15. When this tank is used for wine storage, the operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit

16. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit

17. VOC emissions from red wine fermentation shall not exceed any of the following limits: 3.46 pounds per 1,000 gallon tank capacity per day and 6.2 pounds per 1,000 gallon of wine fermented per year. [District Rule 2201] Federally Enforceable Through Title V Permit

18. The fermentation throughput for this tank shall not exceed 186,000 gallons per year (12-month rolling basis) during facility's seasonal crushing/fermentation period. [District Rule 2201] Federally Enforceable Through Title V Permit

19. The operator shall maintain records of annual wine fermentation throughput on a consecutive 12-month rolling basis. These records shall be updated at least on a monthly basis. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

20. If the fermentation throughput for any rolling 12-month period exceeds the annual throughput limitation of this permit in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitation. [District Rule 2201] Federally Enforceable Through Title V Permit

21. For each batch of must fermented in the tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

22. 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

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

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: N-9371-348-1 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: MCMANIS FAMILY VINEYARDS
MAILING ADDRESS: 18700 E RIVER RD
RIPON, CA 95366

LOCATION: 18700 E RIVER RD
RIPON, CA 95366

EQUIPMENT DESCRIPTION:
MODIFICATION OF 36,600 GALLON STAINLESS STEEL WINE STORAGE TANK (TANK #AAA-5) WITH PRESSURE/VACUUM VALVE AND INSULATION: ALLOW RED WINE FERMENTATION IN THIS TANK

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. The Authority to Construct (ATC) permit N-9371-348-0 shall be implemented concurrently, or prior to the modification and startup of the equipment authorized by this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Prior to operating equipment under this Authority to Construct permit, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 0 lb, 2nd quarter - 0 lb, 3rd quarter - 1,153 lb, and 4th quarter - 577 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 8/15/19) for the ERC specified below. [District Rule 2201] 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.

Samir Sheikh, Executive Director / APCO

DRAFT

Brian Clements, Director of Permit Services
N-9371-348-1 : May 16 2022 3:01PM -- KAHLONJ : Joint Inspection NOT Required

5. ERC Certificate Number N-1559-1 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit
6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. The nominal tank dimensions are 17 feet 9 inches in diameter and 20 feet in height with a proposed volume of 36,600 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
8. When this tank is used for wine storage, this tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
9. When this tank is used for wine storage, the pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
10. When this tank is used for wine storage, the temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
11. The ethanol content of wine stored in this tank shall not exceed 16.0 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Wine storage throughput in this tank shall not exceed any of the following: 73,200 gallons per day and 146,400 gallons per year (12-month rolling basis). [District Rule 2201] Federally Enforceable Through Title V Permit
13. When this tank is used for wine storage, 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 2201 and 4694] Federally Enforceable Through Title V Permit
14. The operator shall maintain records of annual wine storage throughput on a consecutive 12-month rolling basis. These records shall be updated at least on a monthly basis. [District Rule 2201] Federally Enforceable Through Title V Permit
15. When this tank is used for wine storage, the operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit
16. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
17. VOC emissions from red wine fermentation shall not exceed any of the following limits: 3.46 pounds per 1,000 gallon tank capacity per day and 6.2 pounds per 1,000 gallon of wine fermented per year. [District Rule 2201] Federally Enforceable Through Title V Permit
18. The fermentation throughput for this tank shall not exceed 186,000 gallons per year (12-month rolling basis) during facility's seasonal crushing/fermentation period. [District Rule 2201] Federally Enforceable Through Title V Permit
19. The operator shall maintain records of annual wine fermentation throughput on a consecutive 12-month rolling basis. These records shall be updated at least on a monthly basis. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

20. If the fermentation throughput for any rolling 12-month period exceeds the annual throughput limitation of this permit in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitation. [District Rule 2201] Federally Enforceable Through Title V Permit

21. For each batch of must fermented in the tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

22. 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

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

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: N-9371-349-1 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: MCMANIS FAMILY VINEYARDS
MAILING ADDRESS: 18700 E RIVER RD
RIPON, CA 95366

LOCATION: 18700 E RIVER RD
RIPON, CA 95366

EQUIPMENT DESCRIPTION:
MODIFICATION OF 36,600 GALLON STAINLESS STEEL WINE STORAGE TANK (TANK #AAA-6) WITH PRESSURE/VACUUM VALVE AND INSULATION: ALLOW RED WINE FERMENTATION IN THIS TANK

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. The Authority to Construct (ATC) permit N-9371-349-0 shall be implemented concurrently, or prior to the modification and startup of the equipment authorized by this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Prior to operating equipment under this Authority to Construct permit, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 0 lb, 2nd quarter - 0 lb, 3rd quarter - 1,153 lb, and 4th quarter - 577 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 8/15/19) for the ERC specified below. [District Rule 2201] 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.

Samir Sheikh, Executive Director / APCO

DRAFT

Brian Clements, Director of Permit Services
N-9371-349-1 : May 16 2022 3:01PM -- KAHLONJ : Joint Inspection NOT Required

5. ERC Certificate Number N-1559-1 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

7. The nominal tank dimensions are 17 feet 9 inches in diameter and 20 feet in height with a proposed volume of 36,600 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit

8. When this tank is used for wine storage, this tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

9. When this tank is used for wine storage, the pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

10. When this tank is used for wine storage, the temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

11. The ethanol content of wine stored in this tank shall not exceed 16.0 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Wine storage throughput in this tank shall not exceed any of the following: 73,200 gallons per day and 146,400 gallons per year (12-month rolling basis). [District Rule 2201] Federally Enforceable Through Title V Permit

13. When this tank is used for wine storage, 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 2201 and 4694] Federally Enforceable Through Title V Permit

14. The operator shall maintain records of annual wine storage throughput on a consecutive 12-month rolling basis. These records shall be updated at least on a monthly basis. [District Rule 2201] Federally Enforceable Through Title V Permit

15. When this tank is used for wine storage, the operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit

16. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit

17. VOC emissions from red wine fermentation shall not exceed any of the following limits: 3.46 pounds per 1,000 gallon tank capacity per day and 6.2 pounds per 1,000 gallon of wine fermented per year. [District Rule 2201] Federally Enforceable Through Title V Permit

18. The fermentation throughput for this tank shall not exceed 186,000 gallons per year (12-month rolling basis) during facility's seasonal crushing/fermentation period. [District Rule 2201] Federally Enforceable Through Title V Permit

19. The operator shall maintain records of annual wine fermentation throughput on a consecutive 12-month rolling basis. These records shall be updated at least on a monthly basis. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

20. If the fermentation throughput for any rolling 12-month period exceeds the annual throughput limitation of this permit in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitation. [District Rule 2201] Federally Enforceable Through Title V Permit

21. For each batch of must fermented in the tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

22. 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

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

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: N-9371-350-1 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: MCMANIS FAMILY VINEYARDS
MAILING ADDRESS: 18700 E RIVER RD
RIPON, CA 95366

LOCATION: 18700 E RIVER RD
RIPON, CA 95366

EQUIPMENT DESCRIPTION:
MODIFICATION OF 36,600 GALLON STAINLESS STEEL WINE STORAGE TANK (TANK #AAA-7) WITH PRESSURE/VACUUM VALVE AND INSULATION: ALLOW RED WINE FERMENTATION IN THIS TANK

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. The Authority to Construct (ATC) permit N-9371-350-0 shall be implemented concurrently, or prior to the modification and startup of the equipment authorized by this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Prior to operating equipment under this Authority to Construct permit, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 0 lb, 2nd quarter - 0 lb, 3rd quarter - 1,153 lb, and 4th quarter - 577 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 8/15/19) for the ERC specified below. [District Rule 2201] 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.

Samir Sheikh, Executive Director / APCO

DRAFT

Brian Clements, Director of Permit Services
N-9371-350-1 : May 16 2022 3:01PM -- KAHLONJ : Joint Inspection NOT Required

5. ERC Certificate Number N-1559-1 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit
6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. The nominal tank dimensions are 17 feet 9 inches in diameter and 20 feet in height with a proposed volume of 36,600 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
8. When this tank is used for wine storage, this tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
9. When this tank is used for wine storage, the pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
10. When this tank is used for wine storage, the temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
11. The ethanol content of wine stored in this tank shall not exceed 16.0 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Wine storage throughput in this tank shall not exceed any of the following: 73,200 gallons per day and 146,400 gallons per year (12-month rolling basis). [District Rule 2201] Federally Enforceable Through Title V Permit
13. When this tank is used for wine storage, 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 2201 and 4694] Federally Enforceable Through Title V Permit
14. The operator shall maintain records of annual wine storage throughput on a consecutive 12-month rolling basis. These records shall be updated at least on a monthly basis. [District Rule 2201] Federally Enforceable Through Title V Permit
15. When this tank is used for wine storage, the operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit
16. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
17. VOC emissions from red wine fermentation shall not exceed any of the following limits: 3.46 pounds per 1,000 gallon tank capacity per day and 6.2 pounds per 1,000 gallon of wine fermented per year. [District Rule 2201] Federally Enforceable Through Title V Permit
18. The fermentation throughput for this tank shall not exceed 186,000 gallons per year (12-month rolling basis) during facility's seasonal crushing/fermentation period. [District Rule 2201] Federally Enforceable Through Title V Permit
19. The operator shall maintain records of annual wine fermentation throughput on a consecutive 12-month rolling basis. These records shall be updated at least on a monthly basis. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

20. If the fermentation throughput for any rolling 12-month period exceeds the annual throughput limitation of this permit in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitation. [District Rule 2201] Federally Enforceable Through Title V Permit

21. For each batch of must fermented in the tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

22. 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

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

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: N-9371-351-1 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: MCMANIS FAMILY VINEYARDS
MAILING ADDRESS: 18700 E RIVER RD
RIPON, CA 95366

LOCATION: 18700 E RIVER RD
RIPON, CA 95366

EQUIPMENT DESCRIPTION:
MODIFICATION OF 36,600 GALLON STAINLESS STEEL WINE STORAGE TANK (TANK #AAA-8) WITH PRESSURE/VACUUM VALVE AND INSULATION: ALLOW RED WINE FERMENTATION IN THIS TANK

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. The Authority to Construct (ATC) permit N-9371-351-0 shall be implemented concurrently, or prior to the modification and startup of the equipment authorized by this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Prior to operating equipment under this Authority to Construct permit, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 0 lb, 2nd quarter - 0 lb, 3rd quarter - 1,153 lb, and 4th quarter - 577 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 8/15/19) for the ERC specified below. [District Rule 2201] 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.

Samir Sheikh, Executive Director / APCO

DRAFT

Brian Clements, Director of Permit Services
N-9371-351-1 : May 16 2022 3:01PM -- KAHLONJ : Joint Inspection NOT Required

5. ERC Certificate Number N-1559-1 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

7. The nominal tank dimensions are 17 feet 9 inches in diameter and 20 feet in height with a proposed volume of 36,600 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit

8. When this tank is used for wine storage, this tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

9. When this tank is used for wine storage, the pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

10. When this tank is used for wine storage, the temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

11. The ethanol content of wine stored in this tank shall not exceed 16.0 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Wine storage throughput in this tank shall not exceed any of the following: 73,200 gallons per day and 146,400 gallons per year (12-month rolling basis). [District Rule 2201] Federally Enforceable Through Title V Permit

13. When this tank is used for wine storage, 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 2201 and 4694] Federally Enforceable Through Title V Permit

14. The operator shall maintain records of annual wine storage throughput on a consecutive 12-month rolling basis. These records shall be updated at least on a monthly basis. [District Rule 2201] Federally Enforceable Through Title V Permit

15. When this tank is used for wine storage, the operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit

16. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit

17. VOC emissions from red wine fermentation shall not exceed any of the following limits: 3.46 pounds per 1,000 gallon tank capacity per day and 6.2 pounds per 1,000 gallon of wine fermented per year. [District Rule 2201] Federally Enforceable Through Title V Permit

18. The fermentation throughput for this tank shall not exceed 186,000 gallons per year (12-month rolling basis) during facility's seasonal crushing/fermentation period. [District Rule 2201] Federally Enforceable Through Title V Permit

19. The operator shall maintain records of annual wine fermentation throughput on a consecutive 12-month rolling basis. These records shall be updated at least on a monthly basis. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

20. If the fermentation throughput for any rolling 12-month period exceeds the annual throughput limitation of this permit in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitation. [District Rule 2201] Federally Enforceable Through Title V Permit

21. For each batch of must fermented in the tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

22. 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

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

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: N-9371-352-1 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: MCMANIS FAMILY VINEYARDS
MAILING ADDRESS: 18700 E RIVER RD
RIPON, CA 95366

LOCATION: 18700 E RIVER RD
RIPON, CA 95366

EQUIPMENT DESCRIPTION:
MODIFICATION OF 36,600 GALLON STAINLESS STEEL WINE STORAGE TANK (TANK #FFF-1) WITH PRESSURE/VACUUM VALVE AND INSULATION: ALLOW RED WINE FERMENTATION IN THIS TANK

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. The Authority to Construct (ATC) permit N-9371-352-0 shall be implemented concurrently, or prior to the modification and startup of the equipment authorized by this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Prior to operating equipment under this Authority to Construct permit, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 0 lb, 2nd quarter - 0 lb, 3rd quarter - 1,153 lb, and 4th quarter - 577 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 8/15/19) for the ERC specified below. [District Rule 2201] 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.

Samir Sheikh, Executive Director / APCO

Brian Clements, Director of Permit Services
N-9371-352-1 : May 16 2022 3:01PM -- KAHLONJ : Joint Inspection NOT Required

5. ERC Certificate Number N-1559-1 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit
6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. The nominal tank dimensions are 17 feet 9 inches in diameter and 20 feet in height with a proposed volume of 36,600 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
8. When this tank is used for wine storage, this tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
9. When this tank is used for wine storage, the pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
10. When this tank is used for wine storage, the temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
11. The ethanol content of wine stored in this tank shall not exceed 16.0 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Wine storage throughput in this tank shall not exceed any of the following: 73,200 gallons per day and 146,400 gallons per year (12-month rolling basis). [District Rule 2201] Federally Enforceable Through Title V Permit
13. When this tank is used for wine storage, 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 2201 and 4694] Federally Enforceable Through Title V Permit
14. The operator shall maintain records of annual wine storage throughput on a consecutive 12-month rolling basis. These records shall be updated at least on a monthly basis. [District Rule 2201] Federally Enforceable Through Title V Permit
15. When this tank is used for wine storage, the operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit
16. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
17. VOC emissions from red wine fermentation shall not exceed any of the following limits: 3.46 pounds per 1,000 gallon tank capacity per day and 6.2 pounds per 1,000 gallon of wine fermented per year. [District Rule 2201] Federally Enforceable Through Title V Permit
18. The fermentation throughput for this tank shall not exceed 186,000 gallons per year (12-month rolling basis) during facility's seasonal crushing/fermentation period. [District Rule 2201] Federally Enforceable Through Title V Permit
19. The operator shall maintain records of annual wine fermentation throughput on a consecutive 12-month rolling basis. These records shall be updated at least on a monthly basis. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

20. If the fermentation throughput for any rolling 12-month period exceeds the annual throughput limitation of this permit in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitation. [District Rule 2201] Federally Enforceable Through Title V Permit

21. For each batch of must fermented in the tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

22. 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

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

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: N-9371-353-1 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: MCMANIS FAMILY VINEYARDS
MAILING ADDRESS: 18700 E RIVER RD
RIPON, CA 95366

LOCATION: 18700 E RIVER RD
RIPON, CA 95366

EQUIPMENT DESCRIPTION:
MODIFICATION OF 36,600 GALLON STAINLESS STEEL WINE STORAGE TANK (TANK #FFF-2) WITH PRESSURE/VACUUM VALVE AND INSULATION: ALLOW RED WINE FERMENTATION IN THIS TANK

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. The Authority to Construct (ATC) permit N-9371-353-0 shall be implemented concurrently, or prior to the modification and startup of the equipment authorized by this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Prior to operating equipment under this Authority to Construct permit, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 0 lb, 2nd quarter - 0 lb, 3rd quarter - 1,153 lb, and 4th quarter - 577 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 8/15/19) for the ERC specified below. [District Rule 2201] 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.

Samir Sheikh, Executive Director / APCO

DRAFT

Brian Clements, Director of Permit Services
N-9371-353-1 : May 16 2022 3:01PM -- KAHLONJ : Joint Inspection NOT Required

5. ERC Certificate Number N-1559-1 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

7. The nominal tank dimensions are 17 feet 9 inches in diameter and 20 feet in height with a proposed volume of 36,600 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit

8. When this tank is used for wine storage, this tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

9. When this tank is used for wine storage, the pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

10. When this tank is used for wine storage, the temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

11. The ethanol content of wine stored in this tank shall not exceed 16.0 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Wine storage throughput in this tank shall not exceed any of the following: 73,200 gallons per day and 146,400 gallons per year (12-month rolling basis). [District Rule 2201] Federally Enforceable Through Title V Permit

13. When this tank is used for wine storage, 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 2201 and 4694] Federally Enforceable Through Title V Permit

14. The operator shall maintain records of annual wine storage throughput on a consecutive 12-month rolling basis. These records shall be updated at least on a monthly basis. [District Rule 2201] Federally Enforceable Through Title V Permit

15. When this tank is used for wine storage, the operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit

16. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit

17. VOC emissions from red wine fermentation shall not exceed any of the following limits: 3.46 pounds per 1,000 gallon tank capacity per day and 6.2 pounds per 1,000 gallon of wine fermented per year. [District Rule 2201] Federally Enforceable Through Title V Permit

18. The fermentation throughput for this tank shall not exceed 186,000 gallons per year (12-month rolling basis) during facility's seasonal crushing/fermentation period. [District Rule 2201] Federally Enforceable Through Title V Permit

19. The operator shall maintain records of annual wine fermentation throughput on a consecutive 12-month rolling basis. These records shall be updated at least on a monthly basis. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

20. If the fermentation throughput for any rolling 12-month period exceeds the annual throughput limitation of this permit in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitation. [District Rule 2201] Federally Enforceable Through Title V Permit

21. For each batch of must fermented in the tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

22. 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

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

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: N-9371-354-1 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: MCMANIS FAMILY VINEYARDS
MAILING ADDRESS: 18700 E RIVER RD
RIPON, CA 95366

LOCATION: 18700 E RIVER RD
RIPON, CA 95366

EQUIPMENT DESCRIPTION:
MODIFICATION OF 36,600 GALLON STAINLESS STEEL WINE STORAGE TANK (TANK #FFF-3) WITH PRESSURE/VACUUM VALVE AND INSULATION: ALLOW RED WINE FERMENTATION IN THIS TANK

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. The Authority to Construct (ATC) permit N-9371-354-0 shall be implemented concurrently, or prior to the modification and startup of the equipment authorized by this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Prior to operating equipment under this Authority to Construct permit, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 0 lb, 2nd quarter - 0 lb, 3rd quarter - 1,153 lb, and 4th quarter - 577 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 8/15/19) for the ERC specified below. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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Samir Sheikh, Executive Director / APCO

Brian Clements, Director of Permit Services
N-9371-354-1 : May 16 2022 3:01PM -- KAHLONJ : Joint Inspection NOT Required

5. ERC Certificate Number N-1559-1 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

7. The nominal tank dimensions are 17 feet 9 inches in diameter and 20 feet in height with a proposed volume of 36,600 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit

8. When this tank is used for wine storage, this tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

9. When this tank is used for wine storage, the pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

10. When this tank is used for wine storage, the temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

11. The ethanol content of wine stored in this tank shall not exceed 16.0 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Wine storage throughput in this tank shall not exceed any of the following: 73,200 gallons per day and 146,400 gallons per year (12-month rolling basis). [District Rule 2201] Federally Enforceable Through Title V Permit

13. When this tank is used for wine storage, 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 2201 and 4694] Federally Enforceable Through Title V Permit

14. The operator shall maintain records of annual wine storage throughput on a consecutive 12-month rolling basis. These records shall be updated at least on a monthly basis. [District Rule 2201] Federally Enforceable Through Title V Permit

15. When this tank is used for wine storage, the operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit

16. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit

17. VOC emissions from red wine fermentation shall not exceed any of the following limits: 3.46 pounds per 1,000 gallon tank capacity per day and 6.2 pounds per 1,000 gallon of wine fermented per year. [District Rule 2201] Federally Enforceable Through Title V Permit

18. The fermentation throughput for this tank shall not exceed 186,000 gallons per year (12-month rolling basis) during facility's seasonal crushing/fermentation period. [District Rule 2201] Federally Enforceable Through Title V Permit

19. The operator shall maintain records of annual wine fermentation throughput on a consecutive 12-month rolling basis. These records shall be updated at least on a monthly basis. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

20. If the fermentation throughput for any rolling 12-month period exceeds the annual throughput limitation of this permit in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitation. [District Rule 2201] Federally Enforceable Through Title V Permit

21. For each batch of must fermented in the tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

22. 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

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

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: N-9371-355-1 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: MCMANIS FAMILY VINEYARDS
MAILING ADDRESS: 18700 E RIVER RD
RIPON, CA 95366

LOCATION: 18700 E RIVER RD
RIPON, CA 95366

EQUIPMENT DESCRIPTION:
MODIFICATION OF 36,600 GALLON STAINLESS STEEL WINE STORAGE TANK (TANK #FFF-4) WITH PRESSURE/VACUUM VALVE AND INSULATION: ALLOW RED WINE FERMENTATION IN THIS TANK

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. The Authority to Construct (ATC) permit N-9371-355-0 shall be implemented concurrently, or prior to the modification and startup of the equipment authorized by this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Prior to operating equipment under this Authority to Construct permit, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 0 lb, 2nd quarter - 0 lb, 3rd quarter - 1,153 lb, and 4th quarter - 577 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 8/15/19) for the ERC specified below. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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Samir Sheikh, Executive Director / APCO

DRAFT

Brian Clements, Director of Permit Services
N-9371-355-1 : May 16 2022 3:01PM -- KAHLONJ : Joint Inspection NOT Required

5. ERC Certificate Number N-1559-1 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

7. The nominal tank dimensions are 17 feet 9 inches in diameter and 20 feet in height with a proposed volume of 36,600 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit

8. When this tank is used for wine storage, this tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

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11. The ethanol content of wine stored in this tank shall not exceed 16.0 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Wine storage throughput in this tank shall not exceed any of the following: 73,200 gallons per day and 146,400 gallons per year (12-month rolling basis). [District Rule 2201] Federally Enforceable Through Title V Permit

13. When this tank is used for wine storage, 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 2201 and 4694] Federally Enforceable Through Title V Permit

14. The operator shall maintain records of annual wine storage throughput on a consecutive 12-month rolling basis. These records shall be updated at least on a monthly basis. [District Rule 2201] Federally Enforceable Through Title V Permit

15. When this tank is used for wine storage, the operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit

16. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit

17. VOC emissions from red wine fermentation shall not exceed any of the following limits: 3.46 pounds per 1,000 gallon tank capacity per day and 6.2 pounds per 1,000 gallon of wine fermented per year. [District Rule 2201] Federally Enforceable Through Title V Permit

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19. The operator shall maintain records of annual wine fermentation throughput on a consecutive 12-month rolling basis. These records shall be updated at least on a monthly basis. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

20. If the fermentation throughput for any rolling 12-month period exceeds the annual throughput limitation of this permit in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitation. [District Rule 2201] Federally Enforceable Through Title V Permit

21. For each batch of must fermented in the tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

22. 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

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

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: N-9371-356-1 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: MCMANIS FAMILY VINEYARDS
MAILING ADDRESS: 18700 E RIVER RD
RIPON, CA 95366

LOCATION: 18700 E RIVER RD
RIPON, CA 95366

EQUIPMENT DESCRIPTION:
MODIFICATION OF 36,600 GALLON STAINLESS STEEL WINE STORAGE TANK (TANK #FFF-5) WITH PRESSURE/VACUUM VALVE AND INSULATION: ALLOW RED WINE FERMENTATION IN THIS TANK

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. The Authority to Construct (ATC) permit N-9371-356-0 shall be implemented concurrently, or prior to the modification and startup of the equipment authorized by this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Prior to operating equipment under this Authority to Construct permit, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 0 lb, 2nd quarter - 0 lb, 3rd quarter - 1,153 lb, and 4th quarter - 577 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 8/15/19) for the ERC specified below. [District Rule 2201] 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.

Samir Sheikh, Executive Director / APCO

DRAFT

Brian Clements, Director of Permit Services
N-9371-356-1 : May 16 2022 3:01PM -- KAHLONJ : Joint Inspection NOT Required

5. ERC Certificate Number N-1559-1 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

7. The nominal tank dimensions are 17 feet 9 inches in diameter and 20 feet in height with a proposed volume of 36,600 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit

8. When this tank is used for wine storage, this tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

9. When this tank is used for wine storage, the pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

10. When this tank is used for wine storage, the temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

11. The ethanol content of wine stored in this tank shall not exceed 16.0 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Wine storage throughput in this tank shall not exceed any of the following: 73,200 gallons per day and 146,400 gallons per year (12-month rolling basis). [District Rule 2201] Federally Enforceable Through Title V Permit

13. When this tank is used for wine storage, 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 2201 and 4694] Federally Enforceable Through Title V Permit

14. The operator shall maintain records of annual wine storage throughput on a consecutive 12-month rolling basis. These records shall be updated at least on a monthly basis. [District Rule 2201] Federally Enforceable Through Title V Permit

15. When this tank is used for wine storage, the operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit

16. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit

17. VOC emissions from red wine fermentation shall not exceed any of the following limits: 3.46 pounds per 1,000 gallon tank capacity per day and 6.2 pounds per 1,000 gallon of wine fermented per year. [District Rule 2201] Federally Enforceable Through Title V Permit

18. The fermentation throughput for this tank shall not exceed 186,000 gallons per year (12-month rolling basis) during facility's seasonal crushing/fermentation period. [District Rule 2201] Federally Enforceable Through Title V Permit

19. The operator shall maintain records of annual wine fermentation throughput on a consecutive 12-month rolling basis. These records shall be updated at least on a monthly basis. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

20. If the fermentation throughput for any rolling 12-month period exceeds the annual throughput limitation of this permit in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitation. [District Rule 2201] Federally Enforceable Through Title V Permit

21. For each batch of must fermented in the tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

22. 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

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

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: N-9371-357-1 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: MCMANIS FAMILY VINEYARDS
MAILING ADDRESS: 18700 E RIVER RD
RIPON, CA 95366

LOCATION: 18700 E RIVER RD
RIPON, CA 95366

EQUIPMENT DESCRIPTION:
MODIFICATION OF 36,600 GALLON STAINLESS STEEL WINE STORAGE TANK (TANK #FFF-6) WITH PRESSURE/VACUUM VALVE AND INSULATION: ALLOW RED WINE FERMENTATION IN THIS TANK

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. The Authority to Construct (ATC) permit N-9371-357-0 shall be implemented concurrently, or prior to the modification and startup of the equipment authorized by this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Prior to operating equipment under this Authority to Construct permit, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 0 lb, 2nd quarter - 0 lb, 3rd quarter - 1,153 lb, and 4th quarter - 577 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 8/15/19) for the ERC specified below. [District Rule 2201] 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.

Samir Sheikh, Executive Director / APCO

DRAFT

Brian Clements, Director of Permit Services
N-9371-357-1 : May 16 2022 3:01PM -- KAHLONJ : Joint Inspection NOT Required

5. ERC Certificate Number N-1559-1 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

7. The nominal tank dimensions are 17 feet 9 inches in diameter and 20 feet in height with a proposed volume of 36,600 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit

8. When this tank is used for wine storage, this tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

9. When this tank is used for wine storage, the pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

10. When this tank is used for wine storage, the temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

11. The ethanol content of wine stored in this tank shall not exceed 16.0 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Wine storage throughput in this tank shall not exceed any of the following: 73,200 gallons per day and 146,400 gallons per year (12-month rolling basis). [District Rule 2201] Federally Enforceable Through Title V Permit

13. When this tank is used for wine storage, 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 2201 and 4694] Federally Enforceable Through Title V Permit

14. The operator shall maintain records of annual wine storage throughput on a consecutive 12-month rolling basis. These records shall be updated at least on a monthly basis. [District Rule 2201] Federally Enforceable Through Title V Permit

15. When this tank is used for wine storage, the operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit

16. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit

17. VOC emissions from red wine fermentation shall not exceed any of the following limits: 3.46 pounds per 1,000 gallon tank capacity per day and 6.2 pounds per 1,000 gallon of wine fermented per year. [District Rule 2201] Federally Enforceable Through Title V Permit

18. The fermentation throughput for this tank shall not exceed 186,000 gallons per year (12-month rolling basis) during facility's seasonal crushing/fermentation period. [District Rule 2201] Federally Enforceable Through Title V Permit

19. The operator shall maintain records of annual wine fermentation throughput on a consecutive 12-month rolling basis. These records shall be updated at least on a monthly basis. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

20. If the fermentation throughput for any rolling 12-month period exceeds the annual throughput limitation of this permit in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitation. [District Rule 2201] Federally Enforceable Through Title V Permit

21. For each batch of must fermented in the tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

22. 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

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

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: N-9371-358-1 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: MCMANIS FAMILY VINEYARDS
MAILING ADDRESS: 18700 E RIVER RD
RIPON, CA 95366

LOCATION: 18700 E RIVER RD
RIPON, CA 95366

EQUIPMENT DESCRIPTION:
MODIFICATION OF 36,600 GALLON STAINLESS STEEL WINE STORAGE TANK (TANK #FFF-7) WITH PRESSURE/VACUUM VALVE AND INSULATION: ALLOW RED WINE FERMENTATION IN THIS TANK

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. The Authority to Construct (ATC) permit N-9371-358-0 shall be implemented concurrently, or prior to the modification and startup of the equipment authorized by this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Prior to operating equipment under this Authority to Construct permit, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 0 lb, 2nd quarter - 0 lb, 3rd quarter - 1,153 lb, and 4th quarter - 577 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 8/15/19) for the ERC specified below. [District Rule 2201] 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.

Samir Sheikh, Executive Director / APCO

Brian Clements, Director of Permit Services
N-9371-358-1 : May 16 2022 3:01PM -- KAHLONJ : Joint Inspection NOT Required

5. ERC Certificate Number N-1559-1 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

7. The nominal tank dimensions are 17 feet 9 inches in diameter and 20 feet in height with a proposed volume of 36,600 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit

8. When this tank is used for wine storage, this tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

9. When this tank is used for wine storage, the pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

10. When this tank is used for wine storage, the temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

11. The ethanol content of wine stored in this tank shall not exceed 16.0 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Wine storage throughput in this tank shall not exceed any of the following: 73,200 gallons per day and 146,400 gallons per year (12-month rolling basis). [District Rule 2201] Federally Enforceable Through Title V Permit

13. When this tank is used for wine storage, 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 2201 and 4694] Federally Enforceable Through Title V Permit

14. The operator shall maintain records of annual wine storage throughput on a consecutive 12-month rolling basis. These records shall be updated at least on a monthly basis. [District Rule 2201] Federally Enforceable Through Title V Permit

15. When this tank is used for wine storage, the operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit

16. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit

17. VOC emissions from red wine fermentation shall not exceed any of the following limits: 3.46 pounds per 1,000 gallon tank capacity per day and 6.2 pounds per 1,000 gallon of wine fermented per year. [District Rule 2201] Federally Enforceable Through Title V Permit

18. The fermentation throughput for this tank shall not exceed 186,000 gallons per year (12-month rolling basis) during facility's seasonal crushing/fermentation period. [District Rule 2201] Federally Enforceable Through Title V Permit

19. The operator shall maintain records of annual wine fermentation throughput on a consecutive 12-month rolling basis. These records shall be updated at least on a monthly basis. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

20. If the fermentation throughput for any rolling 12-month period exceeds the annual throughput limitation of this permit in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitation. [District Rule 2201] Federally Enforceable Through Title V Permit

21. For each batch of must fermented in the tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

22. 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

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

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: N-9371-359-1 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: MCMANIS FAMILY VINEYARDS
MAILING ADDRESS: 18700 E RIVER RD
RIPON, CA 95366

LOCATION: 18700 E RIVER RD
RIPON, CA 95366

EQUIPMENT DESCRIPTION:
MODIFICATION OF 36,600 GALLON STAINLESS STEEL WINE STORAGE TANK (TANK #FFF-8) WITH PRESSURE/VACUUM VALVE AND INSULATION: ALLOW RED WINE FERMENTATION IN THIS TANK

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. The Authority to Construct (ATC) permit N-9371-359-0 shall be implemented concurrently, or prior to the modification and startup of the equipment authorized by this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Prior to operating equipment under this Authority to Construct permit, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 0 lb, 2nd quarter - 0 lb, 3rd quarter - 1,153 lb, and 4th quarter - 577 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 8/15/19) for the ERC specified below. [District Rule 2201] 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.

Samir Sheikh, Executive Director / APCO

DRAFT

Brian Clements, Director of Permit Services
N-9371-359-1 : May 16 2022 3:01PM -- KAHLONJ : Joint Inspection NOT Required

5. ERC Certificate Number N-1559-1 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit
6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. The nominal tank dimensions are 17 feet 9 inches in diameter and 20 feet in height with a proposed volume of 36,600 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
8. When this tank is used for wine storage, this tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
9. When this tank is used for wine storage, the pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
10. When this tank is used for wine storage, the temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
11. The ethanol content of wine stored in this tank shall not exceed 16.0 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Wine storage throughput in this tank shall not exceed any of the following: 73,200 gallons per day and 146,400 gallons per year (12-month rolling basis). [District Rule 2201] Federally Enforceable Through Title V Permit
13. When this tank is used for wine storage, 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 2201 and 4694] Federally Enforceable Through Title V Permit
14. The operator shall maintain records of annual wine storage throughput on a consecutive 12-month rolling basis. These records shall be updated at least on a monthly basis. [District Rule 2201] Federally Enforceable Through Title V Permit
15. When this tank is used for wine storage, the operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit
16. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
17. VOC emissions from red wine fermentation shall not exceed any of the following limits: 3.46 pounds per 1,000 gallon tank capacity per day and 6.2 pounds per 1,000 gallon of wine fermented per year. [District Rule 2201] Federally Enforceable Through Title V Permit
18. The fermentation throughput for this tank shall not exceed 186,000 gallons per year (12-month rolling basis) during facility's seasonal crushing/fermentation period. [District Rule 2201] Federally Enforceable Through Title V Permit
19. The operator shall maintain records of annual wine fermentation throughput on a consecutive 12-month rolling basis. These records shall be updated at least on a monthly basis. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

20. If the fermentation throughput for any rolling 12-month period exceeds the annual throughput limitation of this permit in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitation. [District Rule 2201] Federally Enforceable Through Title V Permit

21. For each batch of must fermented in the tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

22. 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

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

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: N-9371-360-1 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: MCMANIS FAMILY VINEYARDS
MAILING ADDRESS: 18700 E RIVER RD
RIPON, CA 95366

LOCATION: 18700 E RIVER RD
RIPON, CA 95366

EQUIPMENT DESCRIPTION:
MODIFICATION OF 36,600 GALLON STAINLESS STEEL WINE STORAGE TANK (TANK #GGG-1) WITH PRESSURE/VACUUM VALVE AND INSULATION: ALLOW RED WINE FERMENTATION IN THIS TANK

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. The Authority to Construct (ATC) permit N-9371-360-0 shall be implemented concurrently, or prior to the modification and startup of the equipment authorized by this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Prior to operating equipment under this Authority to Construct permit, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 0 lb, 2nd quarter - 0 lb, 3rd quarter - 1,153 lb, and 4th quarter - 577 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 8/15/19) for the ERC specified below. [District Rule 2201] 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.

Samir Sheikh, Executive Director / APCO

Brian Clements, Director of Permit Services
N-9371-360-1 : May 16 2022 3:01PM -- KAHLONJ : Joint Inspection NOT Required

5. ERC Certificate Number N-1559-1 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit
6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. The nominal tank dimensions are 17 feet 9 inches in diameter and 20 feet in height with a proposed volume of 36,600 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
8. When this tank is used for wine storage, this tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
9. When this tank is used for wine storage, the pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
10. When this tank is used for wine storage, the temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
11. The ethanol content of wine stored in this tank shall not exceed 16.0 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Wine storage throughput in this tank shall not exceed any of the following: 73,200 gallons per day and 146,400 gallons per year (12-month rolling basis). [District Rule 2201] Federally Enforceable Through Title V Permit
13. When this tank is used for wine storage, 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 2201 and 4694] Federally Enforceable Through Title V Permit
14. The operator shall maintain records of annual wine storage throughput on a consecutive 12-month rolling basis. These records shall be updated at least on a monthly basis. [District Rule 2201] Federally Enforceable Through Title V Permit
15. When this tank is used for wine storage, the operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit
16. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
17. VOC emissions from red wine fermentation shall not exceed any of the following limits: 3.46 pounds per 1,000 gallon tank capacity per day and 6.2 pounds per 1,000 gallon of wine fermented per year. [District Rule 2201] Federally Enforceable Through Title V Permit
18. The fermentation throughput for this tank shall not exceed 186,000 gallons per year (12-month rolling basis) during facility's seasonal crushing/fermentation period. [District Rule 2201] Federally Enforceable Through Title V Permit
19. The operator shall maintain records of annual wine fermentation throughput on a consecutive 12-month rolling basis. These records shall be updated at least on a monthly basis. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

20. If the fermentation throughput for any rolling 12-month period exceeds the annual throughput limitation of this permit in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitation. [District Rule 2201] Federally Enforceable Through Title V Permit

21. For each batch of must fermented in the tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

22. 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

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

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: N-9371-361-1 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: MCMANIS FAMILY VINEYARDS
MAILING ADDRESS: 18700 E RIVER RD
RIPON, CA 95366

LOCATION: 18700 E RIVER RD
RIPON, CA 95366

EQUIPMENT DESCRIPTION:
MODIFICATION OF 36,600 GALLON STAINLESS STEEL WINE STORAGE TANK (TANK #GGG-2) WITH PRESSURE/VACUUM VALVE AND INSULATION: ALLOW RED WINE FERMENTATION IN THIS TANK

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. The Authority to Construct (ATC) permit N-9371-361-0 shall be implemented concurrently, or prior to the modification and startup of the equipment authorized by this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Prior to operating equipment under this Authority to Construct permit, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 0 lb, 2nd quarter - 0 lb, 3rd quarter - 1,153 lb, and 4th quarter - 577 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 8/15/19) for the ERC specified below. [District Rule 2201] 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.

Samir Sheikh, Executive Director / APCO

DRAFT

Brian Clements, Director of Permit Services
N-9371-361-1 : May 16 2022 3:01PM -- KAHLONJ : Joint Inspection NOT Required

5. ERC Certificate Number N-1559-1 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

7. The nominal tank dimensions are 17 feet 9 inches in diameter and 20 feet in height with a proposed volume of 36,600 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit

8. When this tank is used for wine storage, this tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

9. When this tank is used for wine storage, the pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

10. When this tank is used for wine storage, the temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

11. The ethanol content of wine stored in this tank shall not exceed 16.0 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Wine storage throughput in this tank shall not exceed any of the following: 73,200 gallons per day and 146,400 gallons per year (12-month rolling basis). [District Rule 2201] Federally Enforceable Through Title V Permit

13. When this tank is used for wine storage, 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 2201 and 4694] Federally Enforceable Through Title V Permit

14. The operator shall maintain records of annual wine storage throughput on a consecutive 12-month rolling basis. These records shall be updated at least on a monthly basis. [District Rule 2201] Federally Enforceable Through Title V Permit

15. When this tank is used for wine storage, the operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit

16. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit

17. VOC emissions from red wine fermentation shall not exceed any of the following limits: 3.46 pounds per 1,000 gallon tank capacity per day and 6.2 pounds per 1,000 gallon of wine fermented per year. [District Rule 2201] Federally Enforceable Through Title V Permit

18. The fermentation throughput for this tank shall not exceed 186,000 gallons per year (12-month rolling basis) during facility's seasonal crushing/fermentation period. [District Rule 2201] Federally Enforceable Through Title V Permit

19. The operator shall maintain records of annual wine fermentation throughput on a consecutive 12-month rolling basis. These records shall be updated at least on a monthly basis. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

20. If the fermentation throughput for any rolling 12-month period exceeds the annual throughput limitation of this permit in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitation. [District Rule 2201] Federally Enforceable Through Title V Permit

21. For each batch of must fermented in the tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

22. 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

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

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: N-9371-362-1 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: MCMANIS FAMILY VINEYARDS
MAILING ADDRESS: 18700 E RIVER RD
RIPON, CA 95366

LOCATION: 18700 E RIVER RD
RIPON, CA 95366

EQUIPMENT DESCRIPTION:
MODIFICATION OF 36,600 GALLON STAINLESS STEEL WINE STORAGE TANK (TANK #GGG-3) WITH PRESSURE/VACUUM VALVE AND INSULATION: ALLOW RED WINE FERMENTATION IN THIS TANK

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. The Authority to Construct (ATC) permit N-9371-362-0 shall be implemented concurrently, or prior to the modification and startup of the equipment authorized by this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Prior to operating equipment under this Authority to Construct permit, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 0 lb, 2nd quarter - 0 lb, 3rd quarter - 1,153 lb, and 4th quarter - 577 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 8/15/19) for the ERC specified below. [District Rule 2201] 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.

Samir Sheikh, Executive Director / APCO

Brian Clements, Director of Permit Services
N-9371-362-1 : May 16 2022 3:01PM -- KAHLONJ : Joint Inspection NOT Required

5. ERC Certificate Number N-1559-1 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit
6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. The nominal tank dimensions are 17 feet 9 inches in diameter and 20 feet in height with a proposed volume of 36,600 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
8. When this tank is used for wine storage, this tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
9. When this tank is used for wine storage, the pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
10. When this tank is used for wine storage, the temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
11. The ethanol content of wine stored in this tank shall not exceed 16.0 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Wine storage throughput in this tank shall not exceed any of the following: 73,200 gallons per day and 146,400 gallons per year (12-month rolling basis). [District Rule 2201] Federally Enforceable Through Title V Permit
13. When this tank is used for wine storage, 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 2201 and 4694] Federally Enforceable Through Title V Permit
14. The operator shall maintain records of annual wine storage throughput on a consecutive 12-month rolling basis. These records shall be updated at least on a monthly basis. [District Rule 2201] Federally Enforceable Through Title V Permit
15. When this tank is used for wine storage, the operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit
16. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
17. VOC emissions from red wine fermentation shall not exceed any of the following limits: 3.46 pounds per 1,000 gallon tank capacity per day and 6.2 pounds per 1,000 gallon of wine fermented per year. [District Rule 2201] Federally Enforceable Through Title V Permit
18. The fermentation throughput for this tank shall not exceed 186,000 gallons per year (12-month rolling basis) during facility's seasonal crushing/fermentation period. [District Rule 2201] Federally Enforceable Through Title V Permit
19. The operator shall maintain records of annual wine fermentation throughput on a consecutive 12-month rolling basis. These records shall be updated at least on a monthly basis. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

20. If the fermentation throughput for any rolling 12-month period exceeds the annual throughput limitation of this permit in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitation. [District Rule 2201] Federally Enforceable Through Title V Permit

21. For each batch of must fermented in the tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

22. 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

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

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: N-9371-363-1 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: MCMANIS FAMILY VINEYARDS
MAILING ADDRESS: 18700 E RIVER RD
RIPON, CA 95366

LOCATION: 18700 E RIVER RD
RIPON, CA 95366

EQUIPMENT DESCRIPTION:
MODIFICATION OF 36,600 GALLON STAINLESS STEEL WINE STORAGE TANK (TANK #GGG-4) WITH PRESSURE/VACUUM VALVE AND INSULATION: ALLOW RED WINE FERMENTATION IN THIS TANK

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. The Authority to Construct (ATC) permit N-9371-363-0 shall be implemented concurrently, or prior to the modification and startup of the equipment authorized by this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Prior to operating equipment under this Authority to Construct permit, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 0 lb, 2nd quarter - 0 lb, 3rd quarter - 1,153 lb, and 4th quarter - 577 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 8/15/19) for the ERC specified below. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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Samir Sheikh, Executive Director / APCO

DRAFT

Brian Clements, Director of Permit Services
N-9371-363-1 : May 16 2022 3:01PM -- KAHLONJ : Joint Inspection NOT Required

5. ERC Certificate Number N-1559-1 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

7. The nominal tank dimensions are 17 feet 9 inches in diameter and 20 feet in height with a proposed volume of 36,600 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit

8. When this tank is used for wine storage, this tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

9. When this tank is used for wine storage, the pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

10. When this tank is used for wine storage, the temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

11. The ethanol content of wine stored in this tank shall not exceed 16.0 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Wine storage throughput in this tank shall not exceed any of the following: 73,200 gallons per day and 146,400 gallons per year (12-month rolling basis). [District Rule 2201] Federally Enforceable Through Title V Permit

13. When this tank is used for wine storage, 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 2201 and 4694] Federally Enforceable Through Title V Permit

14. The operator shall maintain records of annual wine storage throughput on a consecutive 12-month rolling basis. These records shall be updated at least on a monthly basis. [District Rule 2201] Federally Enforceable Through Title V Permit

15. When this tank is used for wine storage, the operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit

16. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit

17. VOC emissions from red wine fermentation shall not exceed any of the following limits: 3.46 pounds per 1,000 gallon tank capacity per day and 6.2 pounds per 1,000 gallon of wine fermented per year. [District Rule 2201] Federally Enforceable Through Title V Permit

18. The fermentation throughput for this tank shall not exceed 186,000 gallons per year (12-month rolling basis) during facility's seasonal crushing/fermentation period. [District Rule 2201] Federally Enforceable Through Title V Permit

19. The operator shall maintain records of annual wine fermentation throughput on a consecutive 12-month rolling basis. These records shall be updated at least on a monthly basis. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

20. If the fermentation throughput for any rolling 12-month period exceeds the annual throughput limitation of this permit in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitation. [District Rule 2201] Federally Enforceable Through Title V Permit

21. For each batch of must fermented in the tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

22. 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

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

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: N-9371-364-1 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: MCMANIS FAMILY VINEYARDS
MAILING ADDRESS: 18700 E RIVER RD
RIPON, CA 95366

LOCATION: 18700 E RIVER RD
RIPON, CA 95366

EQUIPMENT DESCRIPTION:
MODIFICATION OF 36,600 GALLON STAINLESS STEEL WINE STORAGE TANK (TANK #GGG-5) WITH PRESSURE/VACUUM VALVE AND INSULATION: ALLOW RED WINE FERMENTATION IN THIS TANK

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. The Authority to Construct (ATC) permit N-9371-364-0 shall be implemented concurrently, or prior to the modification and startup of the equipment authorized by this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Prior to operating equipment under this Authority to Construct permit, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 0 lb, 2nd quarter - 0 lb, 3rd quarter - 1,153 lb, and 4th quarter - 577 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 8/15/19) for the ERC specified below. [District Rule 2201] 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.

Samir Sheikh, Executive Director / APCO

DRAFT

Brian Clements, Director of Permit Services
N-9371-364-1 : May 16 2022 3:01PM -- KAHLONJ : Joint Inspection NOT Required

5. ERC Certificate Number N-1559-1 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

7. The nominal tank dimensions are 17 feet 9 inches in diameter and 20 feet in height with a proposed volume of 36,600 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit

8. When this tank is used for wine storage, this tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

9. When this tank is used for wine storage, the pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

10. When this tank is used for wine storage, the temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

11. The ethanol content of wine stored in this tank shall not exceed 16.0 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Wine storage throughput in this tank shall not exceed any of the following: 73,200 gallons per day and 146,400 gallons per year (12-month rolling basis). [District Rule 2201] Federally Enforceable Through Title V Permit

13. When this tank is used for wine storage, 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 2201 and 4694] Federally Enforceable Through Title V Permit

14. The operator shall maintain records of annual wine storage throughput on a consecutive 12-month rolling basis. These records shall be updated at least on a monthly basis. [District Rule 2201] Federally Enforceable Through Title V Permit

15. When this tank is used for wine storage, the operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit

16. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit

17. VOC emissions from red wine fermentation shall not exceed any of the following limits: 3.46 pounds per 1,000 gallon tank capacity per day and 6.2 pounds per 1,000 gallon of wine fermented per year. [District Rule 2201] Federally Enforceable Through Title V Permit

18. The fermentation throughput for this tank shall not exceed 186,000 gallons per year (12-month rolling basis) during facility's seasonal crushing/fermentation period. [District Rule 2201] Federally Enforceable Through Title V Permit

19. The operator shall maintain records of annual wine fermentation throughput on a consecutive 12-month rolling basis. These records shall be updated at least on a monthly basis. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

20. If the fermentation throughput for any rolling 12-month period exceeds the annual throughput limitation of this permit in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitation. [District Rule 2201] Federally Enforceable Through Title V Permit

21. For each batch of must fermented in the tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

22. 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

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

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: N-9371-365-1 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: MCMANIS FAMILY VINEYARDS
MAILING ADDRESS: 18700 E RIVER RD
RIPON, CA 95366

LOCATION: 18700 E RIVER RD
RIPON, CA 95366

EQUIPMENT DESCRIPTION:
MODIFICATION OF 36,600 GALLON STAINLESS STEEL WINE STORAGE TANK (TANK #GGG-6) WITH PRESSURE/VACUUM VALVE AND INSULATION: ALLOW RED WINE FERMENTATION IN THIS TANK

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. The Authority to Construct (ATC) permit N-9371-365-0 shall be implemented concurrently, or prior to the modification and startup of the equipment authorized by this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Prior to operating equipment under this Authority to Construct permit, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 0 lb, 2nd quarter - 0 lb, 3rd quarter - 1,153 lb, and 4th quarter - 577 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 8/15/19) for the ERC specified below. [District Rule 2201] 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.

Samir Sheikh, Executive Director / APCO

DRAFT

Brian Clements, Director of Permit Services
N-9371-365-1 : May 16 2022 3:01PM -- KAHLONJ : Joint Inspection NOT Required

5. ERC Certificate Number N-1559-1 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

7. The nominal tank dimensions are 17 feet 9 inches in diameter and 20 feet in height with a proposed volume of 36,600 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit

8. When this tank is used for wine storage, this tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

9. When this tank is used for wine storage, the pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

10. When this tank is used for wine storage, the temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

11. The ethanol content of wine stored in this tank shall not exceed 16.0 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit

12. Wine storage throughput in this tank shall not exceed any of the following: 73,200 gallons per day and 146,400 gallons per year (12-month rolling basis). [District Rule 2201] Federally Enforceable Through Title V Permit

13. When this tank is used for wine storage, 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 2201 and 4694] Federally Enforceable Through Title V Permit

14. The operator shall maintain records of annual wine storage throughput on a consecutive 12-month rolling basis. These records shall be updated at least on a monthly basis. [District Rule 2201] Federally Enforceable Through Title V Permit

15. When this tank is used for wine storage, the operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit

16. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit

17. VOC emissions from red wine fermentation shall not exceed any of the following limits: 3.46 pounds per 1,000 gallon tank capacity per day and 6.2 pounds per 1,000 gallon of wine fermented per year. [District Rule 2201] Federally Enforceable Through Title V Permit

18. The fermentation throughput for this tank shall not exceed 186,000 gallons per year (12-month rolling basis) during facility's seasonal crushing/fermentation period. [District Rule 2201] Federally Enforceable Through Title V Permit

19. The operator shall maintain records of annual wine fermentation throughput on a consecutive 12-month rolling basis. These records shall be updated at least on a monthly basis. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

20. If the fermentation throughput for any rolling 12-month period exceeds the annual throughput limitation of this permit in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitation. [District Rule 2201] Federally Enforceable Through Title V Permit

21. For each batch of must fermented in the tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

22. 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

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

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: N-9371-366-1 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: MCMANIS FAMILY VINEYARDS
MAILING ADDRESS: 18700 E RIVER RD
RIPON, CA 95366

LOCATION: 18700 E RIVER RD
RIPON, CA 95366

EQUIPMENT DESCRIPTION:
MODIFICATION OF 36,600 GALLON STAINLESS STEEL WINE STORAGE TANK (TANK #GGG-7) WITH PRESSURE/VACUUM VALVE AND INSULATION: ALLOW RED WINE FERMENTATION IN THIS TANK

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. The Authority to Construct (ATC) permit N-9371-366-0 shall be implemented concurrently, or prior to the modification and startup of the equipment authorized by this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Prior to operating equipment under this Authority to Construct permit, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 0 lb, 2nd quarter - 0 lb, 3rd quarter - 1,153 lb, and 4th quarter - 577 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 8/15/19) for the ERC specified below. [District Rule 2201] 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.

Samir Sheikh, Executive Director / APCO

DRAFT

Brian Clements, Director of Permit Services
N-9371-366-1 : May 16 2022 3:01PM -- KAHLONJ : Joint Inspection NOT Required

5. ERC Certificate Number N-1559-1 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit
6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. The nominal tank dimensions are 17 feet 9 inches in diameter and 20 feet in height with a proposed volume of 36,600 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
8. When this tank is used for wine storage, this tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
9. When this tank is used for wine storage, the pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
10. When this tank is used for wine storage, the temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
11. The ethanol content of wine stored in this tank shall not exceed 16.0 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Wine storage throughput in this tank shall not exceed any of the following: 73,200 gallons per day and 146,400 gallons per year (12-month rolling basis). [District Rule 2201] Federally Enforceable Through Title V Permit
13. When this tank is used for wine storage, 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 2201 and 4694] Federally Enforceable Through Title V Permit
14. The operator shall maintain records of annual wine storage throughput on a consecutive 12-month rolling basis. These records shall be updated at least on a monthly basis. [District Rule 2201] Federally Enforceable Through Title V Permit
15. When this tank is used for wine storage, the operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit
16. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
17. VOC emissions from red wine fermentation shall not exceed any of the following limits: 3.46 pounds per 1,000 gallon tank capacity per day and 6.2 pounds per 1,000 gallon of wine fermented per year. [District Rule 2201] Federally Enforceable Through Title V Permit
18. The fermentation throughput for this tank shall not exceed 186,000 gallons per year (12-month rolling basis) during facility's seasonal crushing/fermentation period. [District Rule 2201] Federally Enforceable Through Title V Permit
19. The operator shall maintain records of annual wine fermentation throughput on a consecutive 12-month rolling basis. These records shall be updated at least on a monthly basis. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

20. If the fermentation throughput for any rolling 12-month period exceeds the annual throughput limitation of this permit in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitation. [District Rule 2201] Federally Enforceable Through Title V Permit

21. For each batch of must fermented in the tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

22. 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

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

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: N-9371-367-1 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: MCMANIS FAMILY VINEYARDS
MAILING ADDRESS: 18700 E RIVER RD
RIPON, CA 95366

LOCATION: 18700 E RIVER RD
RIPON, CA 95366

EQUIPMENT DESCRIPTION:
MODIFICATION OF 36,600 GALLON STAINLESS STEEL WINE STORAGE TANK (TANK #GGG-8) WITH PRESSURE/VACUUM VALVE AND INSULATION: ALLOW RED WINE FERMENTATION IN THIS TANK

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. The Authority to Construct (ATC) permit N-9371-367-0 shall be implemented concurrently, or prior to the modification and startup of the equipment authorized by this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Prior to operating equipment under this Authority to Construct permit, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 0 lb, 2nd quarter - 0 lb, 3rd quarter - 1,153 lb, and 4th quarter - 577 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 8/15/19) for the ERC specified below. [District Rule 2201] 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.

Samir Sheikh, Executive Director / APCO

DRAFT

Brian Clements, Director of Permit Services
N-9371-367-1 : May 16 2022 3:01PM -- KAHLONJ : Joint Inspection NOT Required

5. ERC Certificate Number N-1559-1 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit
6. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
7. The nominal tank dimensions are 17 feet 9 inches in diameter and 20 feet in height with a proposed volume of 36,600 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
8. When this tank is used for wine storage, this tank shall be equipped with and operated with a pressure-vacuum relief valve, which shall operate within 10% of the maximum allowable working pressure of the tank, operate in accordance with the manufacturer's instructions, and be permanently labeled with the operating pressure settings. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
9. When this tank is used for wine storage, the pressure-vacuum relief valve and storage tank shall remain in a gas-tight condition, except when the operating pressure of the tank exceeds the valve set pressure. A gas-tight condition shall be determined by measuring the gas leak in accordance with the procedures in EPA Method 21. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
10. When this tank is used for wine storage, the temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit
11. The ethanol content of wine stored in this tank shall not exceed 16.0 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Wine storage throughput in this tank shall not exceed any of the following: 73,200 gallons per day and 146,400 gallons per year (12-month rolling basis). [District Rule 2201] Federally Enforceable Through Title V Permit
13. When this tank is used for wine storage, 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 2201 and 4694] Federally Enforceable Through Title V Permit
14. The operator shall maintain records of annual wine storage throughput on a consecutive 12-month rolling basis. These records shall be updated at least on a monthly basis. [District Rule 2201] Federally Enforceable Through Title V Permit
15. When this tank is used for wine storage, the operator shall determine and record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit
16. The average fermentation temperature of each batch of must fermented in this tank shall not exceed 95 degrees Fahrenheit, calculated as the average of all temperature measurements for the batch taken at least every 12 hours over the course of the fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
17. VOC emissions from red wine fermentation shall not exceed any of the following limits: 3.46 pounds per 1,000 gallon tank capacity per day and 6.2 pounds per 1,000 gallon of wine fermented per year. [District Rule 2201] Federally Enforceable Through Title V Permit
18. The fermentation throughput for this tank shall not exceed 186,000 gallons per year (12-month rolling basis) during facility's seasonal crushing/fermentation period. [District Rule 2201] Federally Enforceable Through Title V Permit
19. The operator shall maintain records of annual wine fermentation throughput on a consecutive 12-month rolling basis. These records shall be updated at least on a monthly basis. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

20. If the fermentation throughput for any rolling 12-month period exceeds the annual throughput limitation of this permit in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput is below the annual throughput limitation. [District Rule 2201] Federally Enforceable Through Title V Permit

21. For each batch of must fermented in the tank, the operator shall record the fermentation completion date, the total gallons of must fermented, the uncontrolled fermentation emissions and fermentation emission reductions (calculated per the emission factors given in District Rule 4694). The information shall be recorded by the tank Permit to Operate number and by wine type, stated as either red wine or white wine. [District Rules 2201 and 4694] Federally Enforceable Through Title V Permit

22. 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

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

Appendix B
BACT Guideline

San Joaquin Valley
Unified Air Pollution Control District

Best Available Control Technology (BACT) Guideline 5.4.14*

Last Update: 10/6/2009

Wine Fermentation Tank

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
VOC	Temperature-Controlled Open Top Tank with Maximum Average Fermentation Temperature of 95 deg F	1. Capture of VOCs and Thermal Oxidation or Equivalent (88% control) 2. Capture of VOCs and Carbon Adsorption or Equivalent (86% control) 3. Capture of VOCs and Absorption or Equivalent (81% control) 4. Capture of VOCs and Condensation or Equivalent (81% control)	

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a State Implementation Plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

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

Appendix C
BACT Analysis

Top Down BACT Analysis for VOCs from Wine Fermentation Operations

Step 1 - Identify All Possible Control Technologies

As stated previously, each tank triggers BACT for VOC emissions from the wine fermentation process. Thus, BACT analysis is required.

District BACT guideline 5.4.14 applies to wine fermentation tanks, and lists the following VOC emission control technologies:

- Capture of VOCs and Thermal Oxidation or Equivalent (88% control) – Technologically Feasible
- Capture of VOCs and Carbon Adsorption or Equivalent (86% control) – Technologically Feasible
- Capture of VOCs and Absorption or Condensation or Equivalent (81% control) – Technologically Feasible
- Temperature-Controlled Open Top Tank with Maximum Average Fermentation Temperature of 95 °F

The District has periodically revisited BACT requirements for wine fermentation to determine if any of the technologically feasible VOC emission control techniques have been achieved in practice. In fact, in 2016 the District conducted an extensive evaluation of all known installations of wine fermentation control technologies and developed the following criteria to assess whether any of these control technologies could be considered to be Achieved-in-Practice:

- Did the facility using the control technology purchase/lease the equipment? If so, was that purchase/lease subsidized?
- Was the control technology operated for at least one wine fermentation season?
- Was the control technology operated in the same manner that would be required by the District for BACT purposes?
- How reliable has the control technology been during its use at the facility?
- Has the control technology been verified to perform effectively over the range of operation expected for that type of equipment? Was the effectiveness verified by performance test(s), when possible, or using other performance data?
- Is the control technology commercially available from at least one vendor?
- On what class an category of source has the control technology been demonstrated?

In 2017, the Santa Barbara County Air Pollution Control District (SBCAPCD) issued an Authority to Construct permit (ATC 15044) to the Santa Maria Winery (formerly known as Central Coast Wine Services (CCWS)) which required their wine fermentation tanks to be vented to a chilled water scrubber system during fermentation operations. Furthermore, in 2018 SBCAPCD published BACT guideline 4.1 for closed-top wine fermentation tanks with capacities ≤ 30,000 gallons which established the following Achieved-in-Practice requirement:

- 67.0% combined capture and control efficiency averaged over length of the fermentation season (mass balance basis)

Each fermentation tank associated with this project has a capacity of 36,600 gallons, which is outside the scope of SBCAPCD BACT guideline 4.1. Consequently, the proposed wine fermentation tanks would not be subject to SBCAPCD BACT guideline 4.1 requirements.

Nonetheless, the District will evaluate the control requirements listed in SBCAPCD BACT guideline 4.1 as well as the installation upon which this BACT guideline is based in order to determine if these emission control requirements can be considered to be achieved in practice for the wine fermentation tanks proposed by McManis Family Vineyards.

As part of the permit application evaluation process, the District reached out to McManis Family Vineyards regarding SBCAPCD's BACT guideline 4.1 requirements for wine fermentation tanks. In response, McManis Family Vineyards contends that there are significant differences between their wine making operations and those of the Santa Maria Winery which must be considered as part of the District's achieved in practice determination for wine fermentation controls. To support their assertion, McManis provided information qualitatively explaining key differences between the Santa Maria Winery and the McManis winery; in particular, they highlighted differences in winery design and operation, physical location and environment, appellation (i.e. location where grapes are grown), fermentation and pumpover practices, and fermentation vessel size, all of which contribute to fermentation conditions at the McManis winery that are significantly different from those at the Santa Maria Winery.

Upon District review and comment on their supplemental information, McManis provided further information to quantitatively support their contention that there are significant differences in fermentation conditions between the two wineries. Specifically, McManis provided a wine fermentation kinetics modeling analysis that predicts total exhaust flow rates from wine fermentation tanks under the McManis' wine fermentation style and from the Santa Maria Winery wine fermentation style. Because neither the Santa Maria Winery nor the vendor for the NoMoVo scrubber emission control devices used at the Santa Maria Winery has real time data on the exhaust flow rates from the fermenters, this kinetic fermentation modeling data was very important for the District's analysis to compare the quantitative differences between these two wineries.

Using this new information, which was not previously available to the District, regarding the differences between the McManis winery and the Santa Maria Winery and the resulting effects these differences have on the wine fermentation process conditions together with the District's seven previously established Achieved-in-Practice criteria mentioned above, the District will assess the winery operations and fermentation conditions upon which the SBCAPCD BACT guideline 4.1 control requirements are based to see if this level of control can be considered to be Achieved-in-Practice for the wine fermentation conditions expected for the McManis wine fermentation tanks.

Did the facility using the control technology purchase/lease the equipment? If so, was that purchase/lease subsidized?

According to SBCAPCD, the Santa Maria Winery has purchased the emission control equipment used to control emissions from its wine fermentation tanks. Two original older model NoMoVo scrubber systems that were installed in 2013 were leased. The purchase of the emission control equipment was not subsidized by any grants or outside public funding source/agreement.

Was the control technology operated for at least one wine fermentation season?

According to SBCAPCD, the emission control system has previously been in use at the Santa Maria Winery facility for one partial fermentation season (2013), and three full fermentation seasons (2014 – 2016), on an as-needed basis. During the three full seasons of operation, the emission control system was operated for 147 cumulative days out of the 223 days of wine fermentation activities. Additionally, the emission control system was operated for 30 consecutive days in 2014, 47 consecutive days in 2015, and 37 consecutive days in 2016 at the CCWS facility.

Furthermore, per SBCAPCD the Santa Maria Winery successfully operated the NoMoVo systems each day during the 2018 fermentation season, achieving an overall VOC control of 74.6% on a mass basis. Additionally, according to SBCAPCD, the Santa Maria Winery has continued to successfully operate the NoMoVo system during 2019, 2020, and 2021 fermentation seasons, achieving overall VOC control levels of 69.9%, 71.2%, and 74.2% on a mass basis, respectively.

Therefore, the control technology has been successfully operated for at least an entire fermentation season.

Was the control technology operated in the same manner that would be required by the District for BACT purposes?

The SJVAPCD requires an emission control technology be operated at all times during emission generating activities in order for that technology to be considered Achieved-in-Practice. Originally, the Santa Maria Winery's use of the NoMoVo emission control system was optional and was only used as necessary to avoid offsetting requirements. However, the Santa Maria Winery has since modified their wine fermentation permit such that the operation of the NoMoVo emission control system is now required during all periods of normal operation of the wine fermentation tanks, which is a BACT requirement enforced by permit conditions. As required by BACT and enforced by permit conditions, the Santa Maria Winery's current permit requires the facility to achieve at least 67% capture and control of VOC emissions over the entire fermentation season. During the 2018 fermentation season, the NoMoVo systems were operated at all times during each day of the fermentation period, and have demonstrated an overall capture and control efficiency of 74.6%. Furthermore, according to SBCAPCD, the Santa Maria Winery has continued to successfully operate the NoMoVo system during 2019, 2020, and 2021 fermentation seasons, achieving overall VOC control levels of 69.9%, 71.2%, and 74.2% on a mass basis, respectively.

Thus, the control technology used at the Santa Maria Winery is currently operated in the same manner that would be required by the District for BACT purposes.

How reliable has the control technology been during its use at the facility?

According the SBCAPCD, the chilled water NoMoVo scrubber emission control systems have been effectively used at the Santa Maria Winery since 2013, and have been demonstrated to be reliable over several seasons of use.

Has the control technology been verified to perform effectively over the range of operation expected for that type of equipment? Was the effectiveness verified by performance test(s), when possible, or using other performance data?

Historically, when evaluating BACT for wine fermentation operations the District has only had access to the level of fermentation VOC emission control achieved and the total connected fermentation tank volume at the Santa Maria Winery. The District did not previously have detailed information regarding the operation and fermentation practices at the Santa Maria Winery, nor did the District have quantitative information regarding how these factors affect the wine fermentation conditions when compared to operation and fermentation practices at central valley wineries such as the McManis winery. However, new information regarding the regional differences between the Santa Maria Winery and central valley wineries such as McManis Family Vineyards has been provided for consideration that allows for a more detailed assessment and comparison of the wine making operations and resulting fermentation conditions at the Santa Maria Winery and the McManis winery. Specifically, the District now has more quantitative information with which to evaluate how the differences in wine making practices (e.g. fruit receiving and processing temperatures, sugar content, temperature maintained throughout the fermentation process, and the overall duration of the fermentation cycle) affect the wine tank fermentation conditions, as well as to compare the fermentation tank conditions at the McManis winery with the fermentation tank conditions under which the level of VOC control was achieved at the Santa Maria Winery.

McManis receives grapes with a temperature of 80°F, whereas the Santa Maria Winery receives grapes with a temperature of 50°F. With a grape temperature of 80°F and sugar content of 25.5°Brix, McManis must start fermentation immediately because any delay in the onset of fermentation could adversely affect the quality of the fruit and the resulting wine product. The McManis fermentation cycle lasts from 4 to 7 days. In contrast, the Santa Maria Winery "cold soaks" their grapes (i.e. holds the grape juice in a chilled aqueous solution to delay the onset of fermentation so as to further extract color and flavor from the grape skins, pulp, and seeds, collectively referred to as "must") for a certain amount of time prior to fermentation and then inoculates the grapes with yeast to initiate fermentation to heat the "must" from 50°F to 75°F, in doing so the sugar content drops from 24.5°Brix to 13.7°Brix. The Santa Maria Winery fermentation cycle lasts from 7 to 14 days and this longer fermentation cycle, together with their cold soak practice, allows the Santa Maria Winery the flexibility to manage their fermentation operations to keep the peak flow rates from their fermenters within the design parameters of the NoMoVo scrubber emission control system serving their fermentation tank batteries.

Since McManis conducts fermentation immediately at a higher sugar concentration and higher temperature than the Santa Maria Winery and its fermentation cycle duration is shorter, its fermentation process is expected to have significantly higher peak flow rates from the same fermentation volumes compared to the Santa Maria Winery's method of fermentation. McManis' winemaking operations are not designed to use a cold soaking process, and doing so would require significant changes to their entire winery and would significantly alter the color and flavor characteristics of the wines they produce. Consequently; cold soaking grapes to reduce the starting fermentation temperature and thus reducing peak fermentation flow rates is not a feasible option for the McManis winery. The District has requested data for the actual inlet flow rates to each NoMoVo

system during fermentation from NohBell Corporation (the NoMoVo scrubber vendor) and the Santa Maria Winery (via SBCAPCD staff). However, neither the Santa Maria Winery nor the NoMoVo scrubber vendor has provided actual flow rate data under actual fermentation conditions. SBCAPCD does not require Santa Maria winery to keep such records.

In the absence of this actual total flow rate data, the District relied on a fermentation kinetic model to compare the total gas flow rates from fermentation operations at each winery. The fermentation kinetic model showed that 19,980 gallons of red grape must processed in two 75-ton fermenters at Santa Maria Winery would result in a peak flow rate of 68 acfm, whereas the same 19,980 gallon volume of grape must fermented in a single 100-ton fermenter at McManis winery results in a peak flow rate of 188 acfm, approximately a 3 times higher peak flow rate than the largest fermenters at Santa Maria Winery. The fermentation kinetic model was also used to determine the total combined flow rate from system #4, which has the largest connected fermentation tank volume at the Santa Maria winery. For modeling purposes, a red grape must throughput of 52,500 gallons (maximum processed in 2019) was assumed to be fermented in four 75-ton fermenters in system #4, the largest fermenters at the Santa Maria Winery. Due to the limited crushing capacity at the Santa Maria winery, the onset of fermentation was conservatively assumed to be staggered by 2 hours in each fermenter (it takes approximately one hour to inoculate each tank with yeast, and 24-72 hours from crush to inoculation, with 7-14 days for the red wine fermentation cycle duration). The peak flow rate from all four 75-ton fermenters in this scenario was found to be 164 acfm, which is still below the 188 acfm peak flow from a single 100-ton fermenter processing only 19,980 gallons of grape must at McManis winery.

Furthermore, McManis' winemaking practice involves the use of fresh grapes that are harvested, crushed and loaded into the fermentation tanks as quickly as possible such that all loaded tanks are inoculated with yeast at the same time, and the fermentation cycle completes within 4-7 days. McManis cannot hold the grapes in a cold soak for an extended period of time prior to yeast inoculation, nor can they extend their fermentation cycle duration by starting at a lower yeast inoculation temperature (like Santa Maria Winery does), and they cannot delay fermentation from one tank to another due to the higher temperatures of their grapes, as allowing grapes at 80°F with a sugar content of 25.5°Brix to sit in the fermenter for a period of time without yeast inoculation can adversely affect the quality of the produced wine. As mentioned earlier, the use of chilled water to maintain the grape must at a low temperature to intentionally delay fermentation and to reduce peak flow rates during the fermentation cycle is not an option for McManis Family Vineyards, as adopting this practice would result in a significant deviation from their historical wine making practice requiring a significant redesign of their wine making operations, and would significantly alter the color and flavor profile of the wines they produce. Furthermore, this would require significant increases in chilling capacity at McManis winery when compared to Santa Maria Winery, since the ambient temperatures during grape harvest, crush, and fermentation are much higher in the central valley than on the central coast.

The Santa Maria winery has ten tank batteries, each served by a single NoMoVo scrubber system. System #4 is the largest tank battery at the Santa Maria winery (total connected tank volume of 252,687 gallons) and it is served by a NMV4-2448 scrubber unit. As previously discussed, the kinetic models predict the peak flow rates generated by the largest tank battery (system #4) at the Santa Maria winery are much lower than that from a single McManis fermenter. Furthermore, according the vendor, the largest NoMoVo scrubber available (NVM4-2448) is rated to handle flow rates up to 215 acfm. As mentioned earlier, the expected fermentation gas flow rate from a single McManis fermenter is 188 acfm, so the combined flow rate from just two of their fermenters would exceed the design capacity of the largest available NoMoVo scrubber. Furthermore, McManis is unable to use wine making practices such as cold soaking grapes in order to reduce the starting

fermentation temperature and increase the fermentation cycle duration in order to reduce the peak flow rates from their fermenters. Therefore, at this time the District cannot conclude that the level of VOC emissions control achieved by the NoMoVo scrubber systems used on tank the batteries at the Santa Maria winery has been demonstrated at similar fermentation conditions (i.e. fermentation gas flow rates) expected at the McManis winery.

Moreover, the NoMoVo scrubber emission control system has not been deployed at a winery permitted in the San Joaquin Valley. Given the discussion above, it is likely that the fermentation flow rates from wine fermenters in the San Joaquin Valley would overwhelm even the largest NoMoVo scrubber. Therefore, it is unknown at this time if the NoMoVo emission control system, as implemented at the Santa Maria winery, would effectively control VOC emissions under the fermentation conditions expected at the McManis winery.

Is the control technology commercially available from at least one vendor?

The NoMoVo chilled water scrubber system is commercially available from NohBell Corporation. Currently, the NoMoVo scrubber system is available in two models: NMV4-1836 and NMV4-2448. According to the NohBell Corporation, the model NMV4-1836 can handle gas flow rates up to 134 acfm from up to 60,000 gallons of active, simultaneous fermentation, whereas, the model NMV4-2448 can handle gas flow rates up to 215 acfm from up to 100,000 gallons of active, simultaneous fermentation.

As noted in the previous response, the NoMoVo scrubber emission control system has not been deployed at a winery in the San Joaquin valley. Therefore, it is unknown at this time, if this scrubber will work for the fermentation conditions expected at valley wineries such as McManis.

Also, note that the emission control system at the Terravant Wine Company was a custom-designed unit, not a commercially available off-the-shelf type of system. Thus, the District determined that the emission control system used at Terravant Wine Company was not readily available.

On what class and category of source has the control technology been demonstrated?

SBCAPCD established BACT guideline 4.1 (June 5, 2018) for closed-top wine fermentation tanks with capacities less than or equal to 30,000 gallons. The Santa Maria Winery was the basis for this BACT guideline, and no wine fermentation tank at this winery has a capacity greater than 21,232 gallons.

Each fermentation tank associated with this project has a capacity of 36,600 gallons, which is outside the scope of SBCAPCD BACT guideline 4.1. Consequently, the proposed wine fermentation tanks would not be subject to SBCAPCD BACT guideline 4.1 requirements. Nonetheless, the District has conducted an evaluation of the control requirements listed in SBCAPCD BACT guideline 4.1 as well as the installation upon which this BACT guideline is based in order to determine if these emission control requirements have been demonstrated at similar conditions as expected for the wine fermentation tanks proposed by McManis Family Vineyards.

As noted above, fermentation kinetic models indicate that the peak flow rates generated at the Santa Maria winery are much lower than that from a single McManis fermenter. Furthermore, according the vendor, the largest NoMoVo scrubber available is rated to handle flow rates up to 215 acfm. Santa Maria Winery's regional location and wine making practices allow them to begin fermentation at a lower temperature, to ferment over a longer period of time at a lower average temperature, and also to delay the start of fermentation from one tank to another, all of which affords them the ability to control the total fermentation gas flowrate such that it does not exceed the rated capacity of the NoMoVo system serving each of their fermentation tank batteries. The same fermentation kinetic models indicate that, for a given fermentation volume, the peak gas flow rate from a single McManis fermenter is approximately 3 times larger than a battery of fermenters at the Santa Maria Winery, and the combined gas flow rate from just two McManis fermenters would exceed the design flow rate capacity of the largest NoMoVo scrubber available.

Furthermore, as discussed above, the much hotter regional temperatures in the central valley and the wine making practices employed by the McManis winery make it infeasible for McManis to incorporate wine making practices that reduce peak fermentation gas flow rates similar to those employed at the Santa Maria Winery. Moreover, adopting such practices would result in a significant deviation from McManis' historical wine making practices, necessitate a significant redesign of their wire making operations, and significantly alter the color and flavor profile of the wines they produce. Therefore, at this time the District cannot conclude that the level of control achieved by the NoMoVo scrubber systems used on the tank batteries at the Santa Maria winery has been demonstrated at similar fermentation conditions (i.e. fermentation gas flow rates) expected at the McManis winery.

AIP Conclusion

Based on the above discussion, the District concludes that the 67% control efficiency demonstrated by the NoMoVo scrubber system at the Santa Maria winery has not been demonstrated at a winery with fermentation volumes and gas flow rate conditions similar to those at the McManis winery. Therefore, the requirements from the current District BACT guideline 5.4.14 will be used to address BACT for the proposed tanks.

The SJVUAPCD BACT Clearinghouse guideline 5.4.14 identifies achieved in practice BACT for wine fermentation tanks:

Achieved-in-Practice
Temperature-controlled open top tank with max average fermentation temperature of 95°F

Technologically Feasible
1. Capture of VOCs and Thermal Oxidation or Equivalent (88% overall capture & control)
2. Capture of VOCs and Carbon Adsorption or Equivalent (86% overall capture & control)
3. Capture of VOCs and Absorption or Equivalent (81% overall capture & control)
4. Capture of VOCs and Condensation or Equivalent (81% overall capture & control)

Alternative Basic Equipment
None

Step 2 - Eliminate Technologically Infeasible Options

None of the above listed technologies are technologically infeasible.

Step 3 - Rank Remaining Control Technologies by Control Effectiveness

1. Capture of VOCs and Thermal Oxidation or Equivalent (88% overall capture & control)
2. Capture of VOCs and Carbon Adsorption or Equivalent (86% overall capture & control)
3. Capture of VOCs and Absorption or Equivalent (81% overall capture & control)
4. Capture of VOCs and Condensation or Equivalent (81% overall capture & control)
5. Temperature-controlled open top tank with maximum average fermentation temperature of 95°F (achieved-in-practice overall capture & control)

Step 4 - Cost Effectiveness Analysis

A cost effective analysis must be performed for all control options that have not been determined to be achieved in practice in the list from Step 3 above.

District BACT Policy APR-1305 (6/1/2021) establishes annual cost thresholds for imposed control based upon the amount of pollutants reduced by the controls. If the cost of control is at or below the threshold, it is considered a cost effective control. If the cost exceeds the threshold, it is not cost effective and the control is not required. Per District BACT Policy, the maximum cost limit for VOC reduction is $22,600 per ton of VOC emissions reduced.

Collection System Costs

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

Vent Piping (Ducting)

The 2021 duct cost is estimated to be $78,704, based on a US Duct cost quote and adjusted for inflation.

Clean-in-Place (CIP)

Contamination of the wine product is a primary concern for wineries. The McManis winery takes great care to design their wine making operations around the concept of maintaining strict segregation between wine batches to protect their wines from cross contamination. Since the winery was first constructed in 1998, there has never been any permanent interconnectivity between any wine fermentation or storage tank at McManis Winery. While some winemakers and other professionals in the industry may differ their approach to winemaking, McManis claims this strict approach to wine tank segregation is central to their winemaking style. Consequently, all movement of juice, must and wines into and out of tanks at the McManis winery is currently accomplished through temporary piping, which is removed from the tanks at the conclusion of the transfer operation and cleaned between each use. This allows McManis to ensure that each tank is physically separated during wine making operations to prevent a batch of wine in one tank from being contaminated.

If individual wine tanks are connected to each other via vapor manifold for emissions control, it is possible for contamination to spread from one tank to another in the event of a “foam over” (an uncontrolled effervescent reaction in the fermenting wine). The exact conditions that cause foam overs to occur are not well understood, but are likely related to the carbon dioxide levels present in the fermenting wine. A fully enclosed tank battery and vapor manifold can result in higher than atmospheric pressures inside the tank during fermentation, which can affect the solubility of carbon dioxide in the fermenting wine, which in turn may increase the likelihood of a foam over event. As discussed earlier, the McManis winery must ferment their grapes as soon as they are harvested so that they do not spoil due to high grape temperatures. If a foam over occurs in one or more tanks, the winery must have the ability to quickly clean and sanitize the affected tanks and vapor piping so that they can be returned to production as soon as possible to minimize product loss. A thorough cleaning of the tanks and vapor piping is necessary to prevent the introduction of spoilage bacteria which can alter the flavor characteristics of the wine and potentially ruin an entire batch of wine thus resulting in great economic cost due to lost product.

Therefore, if the proposed fermentation tanks are required to be vented to an emission control system via a connected vapor piping manifold that would create a permanent interconnection between multiple tanks, it is reasonable to design the vapor manifold system such that each tank can be quickly physically isolated from the other tanks if a foam over occurs in one or more of the tanks during wine making, and also to utilize a CIP system so the affected sections of the vapor piping manifold can be quickly cleaned in a manner to allow for uninterrupted use of the non-affected fermentation tanks during. Such a system of ductwork will also allow for continued operation of emission controls in the event of a foam over in any individual tank during a fermentation cycle.

Moreover, the inclusion of a CIP system as part of a ducting system to capture emissions from a battery of wine fermentation tanks is consistent with the guidance provided on page 26 if the California Air Resources Board's October 7, 1986 technical support document titled A Suggested Control Measure for Control of Ethanol Emissions from Winery Fermentation Tanks.

To facilitate this BACT analysis, a cost quotation of $903,400 was provided by Sanimatic on August 9, 2021 for a CIP system that McManis contends would meet their sanitation requirements.

Ethanol recovery credit
Per McManis, they have no use for non-food grade ethanol that might be recovered from the use of wet scrubber or refrigerated condenser technologies. Additionally, the winery does not have any means to convert non-food grade ethanol to food grade ethanol nor approval from the Alcohol and Tobacco Tax and Trade Bureau (TTB) to do so. Moreover, even if McManis had TTB approval and the means to convert the recovered ethanol to food grade, the winery has no use for food grade ethanol. Therefore, no cost credit is given to any recovered ethanol in this analysis.

Waste water disposal cost
Both the clean-in-place (CIP) system and the wet scrubber control option will generate additional waste water which must be disposed of. McManis states that the nearest disposal facility is the East Bay Municipal Utilities District (EBMUD) treatment and recycling facility. Note the CIP system will use detergents in a water solution to clean vapor pipes and connected apparatus. McManis had proposed to use 150 gpm of water through 14 duct zones with a 30-minute cleaning/rinse cycle through each zone for four times during a fermentation season. However, this may represent a worst case usage scenario, so as a conservative estimate, the District presumed that the CIP system would use 75 gpm of water through 14 duct zones with a 10-minute cleaning/rinse cycle through each zone for four times during a fermentation season.

The proposed wet scrubber uses a water and hydrogen peroxide solution to chemically destroy the captured ethanol so it does not get re-entrained into the atmosphere after it is captured. Per McManis, as this laden solution reaches 0.1% saturation (1,000 ppm, alcohol), it needs to be disposed of at EBMUD. However, the District believes that ethanol ladened water (0.1% saturation) can be re-circulated in the scrubber until ethanol content reaches up to 7% (by vol.)[1]. Per McManis, cost of waste water disposal was $0.15/gal in 2015, $0.11/gal in 2016 and $0.11/gal in 2017. As a conservative estimate, a disposal cost of $0.11/gal will be used in the analysis.

Water cost
Per McManis, 7.5 hp electric water pump will be used to pump out water from 250 feet deep ground water well. The cost incurred in operating this electric pump would be associated with the water costs. The estimated cost would be $0.0143/100 gallons.

Chiller Capacity
Per McManis, during harvest season, their chiller capacity runs near its maximum rated capacity. On days when ambient temperature exceeds 90°F, their existing chiller system can have difficulty in maintaining the desired outlet temperature of the chilled liquid. Consequently, McManis is not able to divert any existing chiller capacity to properly run an emission control system requiring chilled liquid in order to properly operate, such as a refrigerated vapor condenser. Therefore, a separate chiller system must be installed to properly run this type of control device.

[1]Per SBCAPCD, Santa Maria Winery initiate scrubber solution replacement when ethanol content in scrubber solution slurry reaches 7% (by vol.).

Option 1 – Capture of VOCs and Thermal Oxidation or Equivalent (88% overall capture & control)

Natural Gas Supplemental Fuel:

The McManis Winery does not have natural gas service. Per Google maps, the nearest likely natural gas service is approximately 2.5 miles away from the winery. Therefore, the cost of installing natural gas service will be included in the analysis for this control option.

Cost Item	Reasons & Remarks	Estimated Cost
Direct Costs		
Purchased equipment costs		
Equipment Purchase (RTO), EC	Ref: Adwest Tech. cost quote (8/31/21)	$467,722
Instrumentation (included)		
Sales taxes	3.1825% EC	$14,885
*Freight	0.05 EC	$23,386
Equipment Purchase(Duct work), EC	Ref: US Duct quote (refer to McManis letter 9/22/21)	$78,704
*Instrumentation	3%EC, instrumentation not included	
Sales taxes	7.75% EC, not a control equipment	$6,100
*Freight	0.05 EC	$3,935
Equipment Purchase (CIP), EC	Ref: SaniMatic Quote (8/9/2021)	$903,400
*Instrumentation	3%EC, instrumentation not included	
Sales taxes	7.75% EC, not a control equipment	$70,014
*Freight	0.05 EC	$45,170
Natural gas service (PGE)	$1,000,000/mile (2014 dollars) - From source below = $1,177,692/mile (2022 dollars, inflation adjusted) Source of cost: https://ww2.arb.ca.gov/sites/default/files/classic/research/apr/past/13-307.pdf.	2,944,230
Purchased equipment costs, PEC	**sum of above items**	**$4,557,546**
Direct installation costs	Ref: Section 3 Table 2.8 of EPA Air Pollution Control Cost Manual (Sixth Edition) EPA/452/B-02-001	
Foundations & supports	0.08 PEC	$364,604
Handling & erection	0.14 PEC	$638,056
Electrical	0.02 PEC	$91,151
Piping	0.01 PEC	$45,575
Insulation for duct work	0.01 PEC	$45,575
Painting	0.01 PEC	$45,575
Direct installation costs	**sum of above items**	**$1,230,537**
Site preparation	not included	
Buildings	not included	
Total Direct Costs, DC		**$5,788,083**

Continued…		
Indirect Costs (installation)	Ref: Section 3 Table 2.8 of EPA Air Pollution Control Cost Manual (Sixth Edition) EPA/452/B-02-001	
Engineering	0.10 PEC	$455,755
Construction & field expenses	0.05 PEC	$227,877
Contractor fees	0.10 PEC	$455,755
Start-up	0.02 PEC	$91,151
Performance test	0.01 PEC	$45,575
Contingencies	0.03 PEC	$136,726
Total Indirect Costs, IC	**sum of above items**	**$1,412,839**
Total Capital Investment, TCI	**DC + IC**	**$7,200,922**
Direct Annual Costs		
Operating labor	Ref: EPA Table 2.10 of EPA/452/B-02-001	
Operator	0.5 hr/shift, $32.00/hr per McManis Family Vineyards, 3 shifts/day, 90 days/yr	$4,320
Supervisor	15% of operator	$648
Maintenance	Ref: EPA Table 2.10 of EPA/452/B-02-001	
Labor	0.5 hr/shift, $32.00/hr per McManis Family Vineyards, 3 shifts/day, 90 days/yr	$4,320
Materials	100% of maintenance labor	$4,320
Utilities		
Supplemental fuel	1.445 MMBtu/hr supplementary fuel required (AdWest Quote) 1.445 MMBtu/hr x 24 hr/day x 90 days/season = 3,121.2 MMBtu/year 3121.2 MMBtu/year x 10^6 Btu/MMBtu x scf/1000 Btu = 3,121,200 scf/year Cost/1000 SCF = $13.92 (EIA November 2021) https://www.eia.gov/dnav/ng/hist/n3020ca3m.htm	$43,447
Electricity (RTO)	20 kW, $0.1457/kWH (Avg. MID bill and usage, between Sept 2017 to Dec 2017 and Sept 2018 to Dec 2018), 90 days/yr	$6,294
Electricity (CIP)	Not determined	
Water (CIP)	75 gpm, 14 zones, 10 min/zone, 4 times/season, $0.0143/100 gal; Ref: SaniMatic Quote adjusted for water supply requirement; water cost supplied by McManis Vineyards	$6
Wastewater disposal (CIP)	75 gpm, 14 zones, 10 min/zone, 4 times/season, $0.11/gal; Ref: SaniMatic Quote adjusted for water supply requirement; water cost supplied by McManis Vineyards	$4,620
Total Direct Annual Costs, DAC	**sum of above items**	**$67,975**
Indirect Annual Costs	Ref: Section 3 Table 2.8 of EPA Air Pollution Control Cost Manual (Sixth Edition) EPA/452/B-02-001	
Overhead	60% of sum of operating, supervisor, & maintenance labor & maintenance materials	$8,165
Administrative Charges	2%TCI	$144,018
Property Taxes	1%TCI	$72,009
Insurance	1%TCI	$72,009
Total Indirect Annual Costs, IAC	**sum of above items**	**$296,202**
Total Annual Costs, TAC	**DAC + IAC**	$364,177

Continued…		
Cost of Emission Reductions ($/ton)		
Amortization factor		
Interest rate (%)	4% (per District BACT Policy)	
Equipment life (years)	10 (per District BACT Policy)	
Amortization factor	0.123	
Annualized Total Capital Investment, ATCI	Amortization factor x TCI	$885,713
Total annualized cost ($/yr)	ATCI + TAC	$1,249,890
Uncontrolled potential emissions (lb/yr)	27,672	
Overall emissions control effectiveness	88%	
Emission Reductions (tons/yr)	Overall emission control (%) x uncontrolled PE (lb/yr) x 1/2000 (ton/lb)	12.2
Cost of Emission Reductions ($/ton)	Total annualized cost($/yr)/Emission Reductions (tons/yr)	**$102,655**

*Ref: Section 3 Table 2.8 of EPA Air Pollution Control Cost Manual (Sixth Edition) EPA/452/B-02-001

Propane Supplemental Fuel:

Cost Item	Reasons & Remarks	Estimated Cost
Direct Costs		
Purchased equipment costs		
Equipment Purchase (RTO), EC	Ref: Adwest Tech. cost quote (8/31/21)	$467,722
Instrumentation (included)		
Sales taxes	3.1825% EC	$14,885
*Freight	0.05 EC	$23,386
Equipment Purchase(Duct work), EC	Ref: US Duct quote (refer to McManis letter 9/22/21)	$78,704
*Instrumentation	3%EC, instrumentation not included	
Sales taxes	7.75% EC, not a control equipment	$6,100
*Freight	0.05 EC	$3,935
Equipment Purchase (CIP), EC	Ref: SaniMatic Quote (8/9/2021)	$903,400
*Instrumentation	3%EC, instrumentation not included	
Sales taxes	7.75% EC, not a control equipment	$70,014
*Freight	0.05 EC	$45,170
Propane Tank	Assuming 4,000 gallon tank (80% fill), homeguide.com places cost at 11,000 for a 2,000 gallon tank-installed. Doubled this for 4,000 gallon tank (3,000 gal capacity at 80% fill)	$22,000
Purchased equipment costs, PEC	**sum of above items**	**$1,635,316**
Direct installation costs	Ref: Section 3 Table 2.8 of EPA Air Pollution Control Cost Manual (Sixth Edition) EPA/452/B-02-001	
Foundations & supports	0.08 PEC	$130,825
Handling & erection	0.14 PEC	$228,944
Electrical	0.02 PEC	$32,706
Piping	0.01 PEC	$16,353
Insulation for duct work	0.01 PEC	$16,353
Painting	0.01 PEC	$16,353
Direct installation costs	**sum of above items**	**$441,535**
Site preparation	not included	
Buildings	not included	
Total Direct Costs, DC		**$2,076,851**

Continued…		
Indirect Costs (installation)	Ref: Section 3 Table 2.8 of EPA Air Pollution Control Cost Manual (Sixth Edition) EPA/452/B-02-001	
Engineering	0.10 PEC	$163,532
Construction & field expenses	0.05 PEC	$81,766
Contractor fees	0.10 PEC	$163,532
Start-up	0.02 PEC	$32,706
Performance test	0.01 PEC	$16,353
Contingencies	0.03 PEC	$49,059
Total Indirect Costs, IC	**sum of above items**	**$506,948**
Total Capital Investment, TCI	**DC + IC**	**$2,583,799**
Direct Annual Costs		
Operating labor	Ref: EPA Table 2.10 of EPA/452/B-02-001	
Operator	0.5 hr/shift, $32.00/hr per McManis Family Vineyards, 3 shifts/day, 90 days/yr	$4,320
Supervisor	15% of operator	$648
Maintenance	Ref: EPA Table 2.10 of EPA/452/B-02-001	
Labor	0.5 hr/shift, $32.00/hr per McManis Family Vineyards, 3 shifts/day, 90 days/yr	$4,320
Materials	100% of maintenance labor	$4,320
Utilities		
Supplemental fuel (Propane)	1.445 MMBtu/hr supplementary fuel required (AdWest Quote) 1.445 MMBtu/hr x 24 hr/day x 90 days/season = 3,121.2 MMBtu/year 3121.2 MMBtu/year x 10^6 Btu/MMBtu x gal/91,500 Btu = 34,111 gal/year Cost/gal = $2.73 (EIA) (US Average, no data for California, but expected to be at least as high as US Average cost) https://www.eia.gov/dnav/pet/pet_pri_wfr_a_EPLLPA_PRS_dpgal_m.htm	$93,123
Electricity (RTO)	20 kW, $0.1457/kWH (Avg. MID bill and usage, between Sept 2017 to Dec 2017 and Sept 2018 to Dec 2018), 90 days/yr	$6,294
Electricity (CIP)	Not determined	
Water (CIP)	75 gpm, 14 zones, 10 min/zone, 4 times/season, $0.0143/100 gal; Ref: SaniMatic Quote adjusted for water supply requirement; water cost supplied by McManis Vineyards	$6
Wastewater disposal (CIP)	75 gpm, 14 zones, 10 min/zone, 4 times/season, $0.11/gal; Ref: SaniMatic Quote adjusted for water supply requirement; water cost supplied by McManis Vineyards	$4,620
Total Direct Annual Costs, DAC	**sum of above items**	**$117,651**

Continued…		
Indirect Annual Costs	Ref: Section 3 Table 2.8 of EPA Air Pollution Control Cost Manual (Sixth Edition) EPA/452/B-02-001	
Overhead	60% of sum of operating, supervisor, & maintenance labor & maintenance materials	$8,165
Administrative Charges	2%TCI	$51,676
Property Taxes	1%TCI	$25,838
Insurance	1%TCI	$25,838
Total Indirect Annual Costs, IAC	**sum of above items**	**$111,517**
Total Annual Costs, TAC	**DAC + IAC**	**$229,168**
Cost of Emission Reductions ($/ton)		
Amortization factor		
Interest rate (%)	4% (per District BACT Policy)	
Equipment life (years)	10 (per District BACT Policy)	
Amortization factor	0.123	
Annualized Total Capital Investment, ATCI	Amortization factor x TCI	$317,807
Total annualized cost ($/yr)	ATCI + TAC	$546,975
Uncontrolled potential emissions (lb/yr)	27,672	
Overall emissions control effectiveness	88%	
Emission Reductions (tons/yr)	Overall emission control (%) x uncontrolled PE (lb/yr) x 1/2000 (ton/lb)	12.2
Cost of Emission Reductions ($/ton)	Total annualized cost($/yr)/Emission Reductions (tons/yr)	**$44,834**

*Ref: Section 3 Table 2.8 of EPA Air Pollution Control Cost Manual (Sixth Edition) EPA/452/B-02-001

Conclusion:

The cost of VOC emissions reductions is $102,655/ton for RTO operating on natural gas fuel, and $44,834/ton for RTO operating on propane fuel. Since each of these values exceeds the $22,600/ton threshold, the use of this capture and control system is not cost effective and cannot be required.

Option 2 – Capture of VOCs and Carbon Adsorption or Equivalent (86% overall capture & control)

Due to a low adsorption rate of ethanol in activated carbon, General Carbon Corporation suggested that the use of activated carbon is not suitable for the proposed project. This suggestion is consistent with the recommendation in EPA's 2018 Cost Reports and Guidance for Air Pollution Regulations (VOC Controls – Carbon Adsorbers, Table 1.1). Nevertheless, the District has conducted a cost-effectiveness analysis for this option using 2015 cost data from a previous wine fermentation project.

Cost Item	Reasons & Remarks	Estimated Cost
Direct Costs		
Purchased equipment costs		
Equipment Purchase (Carbon adsorber), EC	Ref: $80,000 for 1,000 cfm blower package quoted by Drewelow Remediation Equipment Inc. on 2/3/2015 noted under project C-1133347; Quote scaled up to a 4,500 cfm system for McManis project; also the quote was adjusted for inflation from Feb 2015 to Dec 2021. $95,024x(4,500/1,000)$^{0.6}$	$234,294
Instrumentation	0.1 EC	$23,429
Sales taxes	3.1825% EC	$7,456
Freight	0.05 EC	$11,715
Equipment Purchase (Duct work), EC	Ref: US Duct quote (refer to McManis letter 9/22/21)	$78,704
*Instrumentation	3%EC, instrumentation not included	
Sales taxes	7.75% EC, not a control equipment	$6,100
*Freight	0.05 EC	$3,935
Equipment Purchase (CIP), EC	Ref: SaniMatic Quote (8/9/21)	$903,400
*Instrumentation	3%EC, instrumentation not included	
Sales taxes	7.75% EC, not a control equipment	$70,014
*Freight	0.05 EC	$45,170
Purchased equipment costs, PEC	**sum of above items**	**$1,384,217**
Direct installation costs	Ref: Section 3 Table 1.3 of EPA Air Pollution Control Cost Manual (Sixth Edition) EPA/452/B-02-001	
Foundations & supports	0.08 PEC	$110,737
Handling & erection	0.14 PEC	$193,790
Electrical	0.04 PEC	$55,369
Piping	0.02 PEC	$27,684
Insulation	0.01 PEC	$13,842
Painting	0.01 PEC	$13,842
Direct installation costs	**sum of above items**	**$415,265**
Site preparation	not included	
Buildings	not included	
Total Direct Costs, DC		**$1,799,482**

Continued…		
Indirect Costs (installation)	Ref: Section 3 Table 1.3 of EPA Air Pollution Control Cost Manual (Sixth Edition) EPA/452/B-02-001	
Engineering	0.10 PEC	$138,422
Construction & field expenses	0.05 PEC	$69,211
Contractor fees	0.10 PEC	$138,422
Start-up	0.02 PEC	$27,684
Performance test	0.01 PEC	$13,842
Contingencies	0.03 PEC	$41,526
Total Indirect Costs, IC	**sum of above items**	**$429,107**
Total Capital Investment = DC + IC		**$2,228,589**
Direct Annual Costs	Ref: Section 3 Table 1.6 of EPA Air Pollution Control Cost Manual (Sixth Edition) EPA/452/B-02-001	
Operating labor		
Operator	0.5 hr/shift, $32.00/hr per McManis Family Vineyards, 3 shifts/day, 90 days/yr	$4,320
Supervisor	15% of operator	$648
Maintenance		
Labor	0.5 hr/shift, $32.00/hr per McManis Family Vineyards, 3 shifts/day, 90 days/yr	$4,320
Materials	100% of maintenance labor	$4,320
Replacement Parts, carbon		
Replacement labor	Not determined	
Carbon cost	Not determined – however, due to the low adsorption rate of ethanol in activated carbon, it is likely that the carbon replacement cost would be significant were such a system actually used. This significant additional cost would only serve to make this control option even less cost effective.	
Utilities		
Electricity (carbon adsorber system)	Not determined	
Electricity (CIP)	Not determined	
Water (CIP)	75 gpm, 14 zones, 10 min/zone, 4 times/season, $0.0143/100 gal; Ref: SaniMatic Quote adjusted for water supply requirement; water cost supplied by McManis Vineyards	$6
Wastewater disposal (CIP)	75 gpm, 14 zones, 10 min/zone, 4 times/season, $0.11/gal; Ref: SaniMatic Quote adjusted for water supply requirement; water cost supplied by McManis Vineyards	$4,620
Total Direct Annual Costs, DAC	**sum of above items**	**$18,234**

Continued…		
Indirect Annual Costs	Ref: Section 3 Table 1.6 of EPA Air Pollution Control Cost Manual (Sixth Edition) EPA/452/B-02-001	
Overhead	60% of sum of operating, supervisor, & maintenance labor & maintenance materials	$8,165
Administrative Charges	2%TCI	$44,572
Property Taxes	1%TCI	$22,286
Insurance	1%TCI	$22,286
Total Indirect Annual Costs, IAC	**sum of above items**	**$97,308**
Total Annual Costs, TAC	**DAC + IAC**	**$115,542**
Cost of Emission Reductions ($/ton)		
Amortization factor		
Interest rate (%)	4%	
Equipment life (years)	10	
Amortization factor	0.123	
Annualized Total Capital Investment, ATCI	Amortization factor x TCI	$274,116
Total annualized cost ($/yr)	ATCI + TAC	$389,659
Uncontrolled potential emissions (lb/yr)	27,672	
Overall emissions control effectiveness	86%	
Emission Reductions (tons/yr)	Overall emission control (%) x uncontrolled PE (lb/yr) x 1/2000 (ton/lb)	11.9
Cost of Emission Reductions ($/ton)	Total annualized cost($/yr)/Emission Reductions (tons/yr)	**$32,747**

*Ref: Section 3 Table 1.3 of EPA Air Pollution Control Cost Manual (Sixth Edition) EPA/452/B-02-001

Conclusion:

The cost of VOC emissions reductions $32,747/ton exceeds the $22,600/ton threshold. Therefore, the use of this capture and control system is not cost effective and cannot be required.

Option 3: Capture of VOCs and Absorption (Scrubber) or Equivalent (81% overall capture & control)

Cost Item	Reasons & Remarks	Estimated Cost
Direct Costs		
Purchased equipment costs		
Equipment Purchase (Scrubber), EC	Ref: Duall Cost quote 2/25/2019 & Eichleay White Paper (refer to McManis Letter 9/22/21)	$64,032
Instrumentation (included)		
Sales taxes	3.1825% EC	$2,038
*Freight	0.05 EC	$3,202
Equipment Purchase(Duct work), EC	Ref: US Duct quote (refer to McManis letter 9/22/21)	$78,704
*Instrumentation	3%EC, instrumentation not included	
Sales taxes	7.75% EC, not a control equipment	$6,100
*Freight	0.05 EC	$3,935
Equipment Purchase (CIP), EC	Ref: SaniMatic Quote (8/9/21)	$903,400
*Instrumentation	3%EC, instrumentation not included	
Sales taxes	7.75% EC, not a control equipment	$70,014
*Freight	0.05 EC	$45,170
Equipment Purchase, EC Hydrogen peroxide tank	Ref: Miles Chemicals Quote	$8,500
Sales taxes	7.75%EC	$659
*Freight	0.05EC	$425
Purchased equipment costs, PEC	**sum of above items**	**$1,186,177**
Direct installation costs	Ref: Section 5 Table 1.3 of EPA Air Pollution Control Cost Manual (Sixth Edition) EPA/452/B-02-001	
Foundations & supports	0.12 PEC	$142,341
Handling & erection	0.40 PEC	$474,471
Electrical	0.01 PEC	$11,862
Piping	0.30 PEC	$355,853
Insulation for duct work	0.01 PEC	$11,862
Painting	0.01 PEC	$11,862
Direct installation costs	**sum of above items**	**$1,008,251**
Site preparation	not included	
Buildings	not included	
Total Direct Costs, DC		**$2,194,428**
Indirect Costs (installation)	Ref: Section 5 Table 1.3 of EPA Air Pollution Control Cost Manual (Sixth Edition) EPA/452/B-02-001	
Engineering	0.10 PEC	$118,618
Construction & field expenses	0.10 PEC	$118,618
Contractor fees	0.10 PEC	$118,618
Start-up (scrubber)	Ref: Duall Cost quote (1/22/19)	$5,250
Start-up (CIP & ductwork)	0.02 PEC	$22,146

Continued…		
Performance test	0.01 PEC	$11,862
Contingencies	0.03 PEC	$35,585
Total Indirect Costs, IC	**sum of above items**	**$430,697**
Total Capital Investment	**DC + IC**	**$2,625,125**
Direct Annual Costs	Ref: Section 5 Table 1.4 of EPA Air Pollution Control Cost Manual (Sixth Edition) EPA/452/B-02-001	
Operating labor		
Operator	0.5 hr/shift, $32.00/hr per McManis Family Vineyards, 3 shifts/day, 90 days/yr	$4,320
Supervisor	15% of operator	$648
Operating materials		
Hydrogen peroxide	Ref: scrubber solution cost worksheet	$27,495
Wastewater disposal (scrubber water)	Blowdown, when ethanol content reach 7% (by vol.), $0.11/gal per McManis Family Vineyards Uncontrolled PE (lb-ethanol/yr) x CE % x 1/8.34 (gal-water/lb-water) x ((100 gal-water/7 gal-ethanol) x (8.34 lb-water/gal-water/6.6 lb-ethanol/gal-ethanol)	$5,337
Maintenance		
Labor	0.5 hr/shift, $32.00/hr per McManis Family Vineyards, 3 shifts/day, 90 days/yr	$4,320
Materials	100% of maintenance labor	$4,320
Utilities		
Electricity (Scrubber)	8.96 kW, $0.1457/kWH (Avg. MID bill and usage, between Sept 2017 to Dec 2017 and Sept 2018 to Dec 2018), 90 days/yr	$2,820
Electricity (CIP)	Not determined	
Water (CIP)	75 gpm, 14 zones, 10 min/zone, 4 times/season, $0.0143/100 gal; Ref: SaniMatic Quote adjusted for water supply requirement; water cost supplied by McManis Vineyards	$6
Wastewater disposal (CIP)	75 gpm, 14 zones, 10 min/zone, 4 times/season, $0.11/gal; Ref: SaniMatic Quote adjusted for water supply requirement; water cost supplied by McManis Vineyards	$4,620
Total Direct Annual Costs, DAC	**sum of above items**	**$53,885**
Indirect Annual Costs	Ref: Section 5 Table 1.4 of EPA Air Pollution Control Cost Manual (Sixth Edition) EPA/452/B-02-001	
Overhead	60% of sum of operating, supervisor, & maintenance labor & maintenance materials	$8,165
Administrative Charges	2%TCI	$52,503
Property Taxes	1%TCI	$26,251
Insurance	1%TCI	$26,251
Total Indirect Annual Costs, IAC	**sum of above items**	**$113,170**
Total Annual Costs, TAC	**DAC + IAC**	**$167,055**

Continued…		
Cost of Emission Reductions ($/ton)		
Amortization factor		
Interest rate (%)	4% (per District BACT Policy)	
Equipment life (years)	10 (per District BACT Policy)	
Amortization factor	0.123	
Annualized Total Capital Investment, ATCI	Amortization factor x TCI	$322,890
Total annualized cost ($/yr)	ATCI + TAC	$489,945
Uncontrolled potential emissions (lb/yr)	27,672	
Overall emissions control effectiveness	81%	
Emission Reductions (tons/yr)	Overall emission control (%) x PE (lb/yr)	11.2
Cost of Emission Reductions ($/ton)	Total annualized cost($/yr)/Emission Reductions (tons/yr)	**$43,717**
*Ref. Section 5 Table 1.3 of EPA Air Pollution Control Cost Manual (Sixth Edition) EPA/452/B-02-001		

Conclusion:
The cost of VOC emissions reductions $43,717/ton exceeds the $22,600/ton threshold. Therefore, the use of this capture and control system is not cost effective and cannot be required.

Option 4: Capture of VOCs and Condensation or Equivalent (81% overall capture & control)

Cost Item	Reasons & Remarks	Estimated Cost
Direct Costs		
Purchased equipment costs		
Equipment Purchase (Refrigerated Condenser), EC	Ref: Chiller Solutions/Edwards Engineering Proposal cost quote & Eichleay White Paper (see McManis Letter dated 9/22/21)	$779,980
Instrumentation (included)		--
Sales taxes	3.1825% EC	$24,823
Freight	Ref: Chiller Solutions/Edwards Engineering Proposal cost quote (adjusted using previous EC and freight cost)	$9,566
Equipment Purchase(Duct work), EC	Ref: US Duct quote (refer to McManis letter 9/22/21)	$78,704
*Instrumentation	3%EC, instrumentation not included	
Sales taxes	7.75% EC, not a control equipment	$6,100
*Freight	0.05 EC	$3,935
Equipment Purchase (CIP), EC	Ref: SaniMatic Quote (8/9/2021)	$903,400
*Instrumentation	3%EC, instrumentation not included	
Sales taxes	7.75% EC, not a control equipment	$70,014
*Freight	0.05 EC	$45,170
Purchased equipment costs, PEC	**sum of above items**	**$1,921,691**
Direct installation costs	Ref: Section 3 Table 2.3 of EPA Air Pollution Control Cost Manual (Sixth Edition) EPA/452/B-02-001	
Foundations & supports	0.14 PEC	$269,037
Handling & erection	0.08 PEC	$153,735
Electrical	0.08 PEC	$153,735
Piping	0.02 PEC	$38,434
Insulation	0.10 PEC	$192,169
Painting	0.01 PEC	$19,217
Direct installation costs	**sum of above items**	**$826,327**
Site preparation	not included	
Buildings	not included	
Total Direct Costs, DC		**$2,748,018**
Indirect Costs (installation)	Ref: Section 3 Table 2.3 of EPA Air Pollution Control Cost Manual (Sixth Edition) EPA/452/B-02-001	
Engineering	0.10 PEC	$192,169
Construction & field expenses	0.05 PEC	$96,085
Contractor fees	0.10 PEC	$192,169
Start-up	0.02 PEC	$38,434
Performance test	0.01 PEC	$19,217
Contingencies	0.03 PEC	$57,651
Total Indirect Costs, IC	**sum of above items**	**$595,724**

Continued…		
Total Capital Investment = DC + IC		**$3,343,742**
Direct Annual Costs	Ref: Section 3 Table 2.4 of EPA Air Pollution Control Cost Manual (Sixth Edition) EPA/452/B-02-001	
Operating labor		
Operator	0.5 hr/shift, $32.00/hr per McManis Family Vineyards, 3 shifts/day, 90 days/yr	$4,320
Supervisor	15% of operator	$648
Maintenance		
Labor	0.5 hr/shift, $32.00/hr per McManis Family Vineyards, 3 shifts/day, 90 days/yr	$4,320
Materials	100% of maintenance labor	$4,320
Utilities		
Electricity (Refrigerated condenser system)	74 kW (ref: Chiller solutions/Edwards Engineering cost quote), $0.1457/kWH (Avg. MID bill and usage, between Sept 2017 to Dec 2017 and Sept 2018 to Dec 2018), 90 days/yr	$23,289
Electricity (CIP)	Not determined	
Water (CIP)	75 gpm, 14 zones, 10 min/zone, 4 times/season, $0.0143/100 gal; Ref: SaniMatic Quote adjusted for water supply requirement; water cost supplied by McManis Vineyards	$6
Wastewater disposal (CIP)	75 gpm, 14 zones, 10 min/zone, 4 times/season, $0.11/gal; Ref: SaniMatic Quote adjusted for water supply requirement; water cost supplied by McManis Vineyards	$4,620
Total Direct Annual Costs, DAC	**sum of above items**	**$41,523**
Indirect Annual Costs	Ref: Section 3 Table 2.4 of EPA Air Pollution Control Cost Manual (Sixth Edition) EPA/452/B-02-001	
Overhead	60% of sum of operating, supervisor, & maintenance labor & maintenance materials	$8,165
Administrative Charges	2%TCI	$66,875
Property Taxes	1%TCI	$33,437
Insurance	1%TCI	$33,437
Total Indirect Annual Costs, IAC	**sum of above items**	**$141,914**
Total Annual Costs, TAC	**DAC + IAC**	**$183,437**
Cost of Emission Reductions ($/ton)		
Amortization factor		
Interest rate (%)	4% (per District BACT Policy)	
Equipment life (years)	10 (per District BACT Policy)	
Amortization factor	0.123	
Annualized Total Capital Investment, ATCI	Amortization factor x TCI	$411,280

Continued…		
Total annualized cost ($/yr)	ATCI + TAC	$594,717
Uncontrolled potential emissions (lb/yr)	27,672	
Overall emissions control effectiveness	81%	
Emission Reductions (tons/yr)	Overall emission control (%) x PE (lb/yr)	11.2
Cost of Emission Reductions ($/ton)	Total annualized cost($/yr)/Emission Reductions (tons/yr)	**$53,066**
*Ref. Section 3 Table 2.3 of EPA Air Pollution Control Cost Manual (Sixth Edition) EPA/452/B-02-001		

Conclusion:
The cost of VOC emissions reductions $53,066/ton exceeds the $22,600/ton threshold. Therefore, the use of this capture and control system is not cost effective and cannot be required.

In addition, the District has conducted a cost analysis for this project using an EcoPAS PAS-100 vapor condenser system operating with a third party chiller system. As previously stated, McManis is not able to divert any existing chiller capacity to properly run an emission control system consisting of refrigerated condensers. Therefore, a separate dedicated chiller is needed to run EcoPAS's condenser system.

EcoPAS has previously provided the following cost quotations for its PAS-100 condenser system as detailed below:

1. Santa Barbara County Air Pollution Control District's 2017 cost analysis for BACT Guideline 4.1 included an EcoPAS cost quote of $270,000 for one EcoPAS PAS-100 condenser. This cost does not includes sales tax and freight expenses to Ripon California.

2. EcoPAS provided a cost quote on March 28, 2016 for San Joaquin Valley Air Pollution Control District project N-1153192 of $195,000 for one EcoPAS PAS-100 condenser. Adjusted for inflation between March 2016 and January 2022, the PAS-100 condenser would cost $230,225 in 2022 dollars. In their March 28, 2016 cost quote for project N-1153192, EcoPAS stated that three PAS-100 condensers would be required for that project's total fermentation volume of 4.3 million gallons, which is a similar fermentation volume to that of the McManis project (4.5 million gallons). **Therefore, as a conservative estimate, it is assumed the McManis project would also require at least three PAS-100 condensers, which would cost $690,675**.

   However, according to a data sheet for the PAS-100 unit, its peak flow rate capacity is 325 cfm, so it is likely that it would take more than three PAS-100 units (≅ 14 units) to handle the 4,512 cfm total peak flow rate from the McManis project.

   Nevertheless, as a conservative estimate, the following cost analysis using the EcoPAS vapor condenser system for the proposed project will use a cost of $690,675 for three PAS-100 condensers.

Cost Item	Reasons & Remarks	Estimated Cost
Direct Costs		
Purchased equipment costs		
*Chiller		
100-ton air cooled chiller, EC	Ref: McManis Vineyards e-mail dated 3/24/22	$138,000
Pump skid-VFD/valves/appurtenance	Ref: McManis Vineyards e-mail dated 3/24/22	$22,000
Handling fees	Ref: McManis Vineyards e-mail dated 3/24/22	$2,000
Sales taxes	3.1825% EC	$4,392
Freight	Ref: McManis Vineyards e-mail dated 3/24/22	$5,500
$EC_{Chiller}$	**sum of above items**	**$515,676**
Condenser		
Three ECOPAS P-100 systems	3 ECOPAS P-100 condensers, $230,225/condenser, various District projects	$690,675
Sales taxes	3.18%	$21,981
Freight	0.05EC	$34,534
$EC_{Condenser}$	**sum of above items**	**$747,189**
Vapor Manifold		
Equipment Purchase(Duct work), EC	Ref: US Duct quote (refer to McManis letter 9/22/21)	$78,704
*Instrumentation	3%EC, instrumentation not included	
Sales taxes	7.75% EC, not a control equipment	$6,100
*Freight	0.05 EC	$3,935
$EC_{Vapor\ Manifold}$	**sum of above items**	**$88,739**
Clean-in-Place System		
Equipment Purchase (CIP), EC	Ref: SaniMatic Quote (8/9/2021)	$903,400
*Instrumentation	3%EC, instrumentation not included	
Sales taxes	7.75% EC, not a control equipment	$70,014
*Freight	0.05 EC	$45,170
$EC_{CIP\ System}$	**sum of above items**	**$1,018,584**
Purchased equipment costs, PEC	**ECChiller + ECCondenser + ECVapor Manifold + ECCIP System**	**$2,370,187**
Direct installation costs	Ref: Section 3 Table 2.3 of EPA Air Pollution Control Cost Manual (Sixth Edition) EPA/452/B-02-001	
Chiller		
Foundations & supports	Per McManis' vendor	$10,000
Handling & erection	Per McManis' vendor	$20,000
Electrical	0.08 EC of chiller	$189,615
Piping	Per McManis' vendor	$28,000
Insulation	Per McManis' vendor	$18,000
Painting	N/A	$0
Direct installation costs, Chiller	**sum of above items**	**$265,615**

Continued…		
Condenser, Vapor Manifold & CIP System		
Foundations & supports	0.14 ($EC_{Condenser}$ + $EC_{Vapor\ Manifold}$ + $EC_{CIP\ System}$)	$259,632
Handling & erection	0.08 ($EC_{Condenser}$ + $EC_{Vapor\ Manifold}$ + $EC_{CIP\ System}$)	$148,361
Electrical	0.08 ($EC_{Condenser}$ + $EC_{Vapor\ Manifold}$ + $EC_{CIP\ System}$)	$148,361
Piping	0.02 ($EC_{Condenser}$ + $EC_{Vapor\ Manifold}$ + $EC_{CIP\ System}$)	$37,090
Insulation	0.1 ($EC_{Condenser}$ + $EC_{Vapor\ Manifold}$ + $EC_{CIP\ System}$)	$185,451
Painting	0.01 ($EC_{Condenser}$ + $EC_{Vapor\ Manifold}$ + $EC_{CIP\ System}$)	$18,545
Direct installation costs, condenser+vapor manifold+CIP system	**sum of above items**	**$797,440**
Site preparation	not included	
Buildings	not included	
Total Direct Costs, DC		**$3,433,242**
Indirect Costs (installation)	Ref: Section 3 Table 2.3 of EPA Air Pollution Control Cost Manual (Sixth Edition) EPA/452/B-02-001	
Engineering	0.10 PEC	$237,019
Construction & field expenses	0.05 PEC	$118,509
Contractor fees	0.10 PEC	$237,019
Start-up	0.02 PEC	$47,404
Performance test	0.01 PEC	$23,702
Contingencies	0.03 PEC	$71,106
Total Indirect Costs, IC	**sum of above items**	**$734,758**
Total Capital Investment = DC + IC		**$4,168,000**
Direct Annual Costs	Ref: Section 3 Table 2.4 of EPA Air Pollution Control Cost Manual (Sixth Edition) EPA/452/B-02-001	
Operating labor		
Operator	0.5 hr/shift, $32.00/hr per McManis Family Vineyards, 3 shifts/day, 90 days/yr	$4,320
Supervisor	15% of operator	$648
Maintenance		
Labor	0.5 hr/shift, $32.00/hr per McManis Family Vineyards, 3 shifts/day, 90 days/yr	$4,320
Materials	100% of maintenance labor	$4,320
Utilities		
Electricity (Chiller system)	75 kW, $0.1457/kWH (Avg. MID bill and usage, between Sept 2017 to Dec 2017 and Sept 2018 to Dec 2018), 90 days/yr	$23,603
Electricity (CIP)	Not determined	
Water (CIP)	75 gpm, 14 zones, 10 min/zone, 4 times/season, $0.0143/100 gal; Ref: SaniMatic Quote adjusted for water supply requirement; water cost supplied by McManis Vineyards	$6

Continued…		
Wastewater disposal (CIP)	75 gpm, 14 zones, 10 min/zone, 4 times/season, $0.11/gal; Ref: SaniMatic Quote adjusted for water supply requirement; water cost supplied by McManis Vineyards	$4,620
Total Direct Annual Costs, DAC	**sum of above items**	**$41,837**
Indirect Annual Costs	Ref: Section 3 Table 2.4 of EPA Air Pollution Control Cost Manual (Sixth Edition) EPA/452/B-02-001	
Overhead	60% of sum of operating, supervisor, & maintenance labor & maintenance materials	$8,165
Administrative Charges	2%TCI	$83,360
Property Taxes	1%TCI	$41,680
Insurance	1%TCI	$41,680
Total Indirect Annual Costs, IAC	**sum of above items**	**$174,885**
Total Annual Costs, TAC	**DAC + IAC**	**$216,722**
Cost of Emission Reductions ($/ton)		
Amortization factor		
Interest rate (%)	4%	
Equipment life (years)	10	
Amortization factor	0.123	
Annualized Total Capital Investment, ATCI	Amortization factor x TCI	$512,664
Total annualized cost ($/yr)	ATCI + TAC	$729,386
Uncontrolled potential emissions (lb/yr)	27,672	
Overall emissions control effectiveness	81%	
Emission Reductions (tons/yr)	Overall emission control (%) x PE (lb/yr)	11.2
Cost of Emission Reductions ($/ton)	Total annualized cost($/yr)/Emission Reductions (tons/yr)	**$65,082**
*Ref. Section 3 Table 2.3 of EPA Air Pollution Control Cost Manual (Sixth Edition) EPA/452/B-02-001		

Conclusion:
The cost of VOC emissions reductions $65,082/ton exceeds the $22,600/ton threshold. Therefore, the use of this capture and control system is not required.

Option 5 - Temperature-controlled open top tank with maximum average fermentation temperature of 95°F
This option is the only remaining control option in step 3 above. It has been deemed AIP for this class and category of source; therefore, per the District's BACT policy it is required regardless of the cost. Therefore, a cost effectiveness analysis is not required.

Step 5 – Select BACT

Based on the above discussion, BACT for each tank is to install a temperature controlled tank operated in a manner to not exceed a maximum average temperature of 95˚F during the fermentation operation. The applicant has proposed to comply with this BACT requirement. Therefore, this proposal satisfied the BACT at this time.

Appendix D
Quarterly Net Emissions Change

Quarterly Net Emissions Change (QNEC)

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

QNEC = PE2 - PE1, where:

QNEC = Quarterly Net Emissions Change for each emissions unit, lb/qtr.
PE2 = Post-Project Potential to Emit for each emissions unit, lb/qtr.
PE1 = Pre-Project Potential to Emit for each emissions unit, lb/qtr.

N-9371-344-1 through '-367-1 (each):
Due to the seasonal nature of the fermentation process, VOC emissions occur during August through October (3 months in a year) each year at this site. Therefore, the annual VOC emissions are distributed among 3rd and 4th quarters only.

Quarterly NEC [QNEC]				
Pollutant	**Q1 (lb)**	**Q2 (lb)**	**Q3 (lb)**	**Q4 (lb)**
NO_X	0	0	0	0
SO_X	0	0	0	0
PM_{10}	0	0	0	0
CO	0	0	0	0
VOC	0	0	769*	384**

*2/3 x 1,153 lb-VOC = 769 lb; ** 1,153 lb – 769 lb = 384 lb

Appendix E
FYI-114

FYI-114

SAN JOAQUIN VALLEY UNIFIED
AIR POLLUTION CONTROL DISTRICT

DATE: March 8, 2007 (Revised 09/14/09) (Revised 8/10/11) (Revised 6/13/12)

TO: Permit Services Staff

FROM: Dennis Roberts

SUBJECT: VOC Emission Factors for Wine Fermentation and Storage Tanks

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Winery tank operations generally consist of two separate emissions units; 1) fermentation and 2) storage of wine and spirits. Any particular tank may be permitted to perform one or both of these operations. The emissions from each emission unit are appropriately combined to yield the Potential to Emit for the tank (permit unit).

Emissions from fermentation operations are estimated using emission factors which have been developed based on a recognized fermentation model and are presented herein. For wine storage operations, emissions can be determined in general by modeling the storage tank operation using the EPA's Tanks 4.0 software (modeling procedures and an ethanol/water data base have been established as described in FYI-295 (*Modeling Emissions from Wine Storage Tanks)*. However, the majority of wine storage tanks located in the District are insulated storage tanks which do not have a requirement for refrigeration (ambient storage temperature). For this classification of tank the storage emission factor, as calculated by the Tanks 4.0 model, is a function of ethanol content only. For this case the tabular emission factors presented herein are applicable (note that storage tanks which are un-insulated and/or which have NSR limits on the tank operating temperature should be estimated by the emissions modeling per FYI-295).

Wine Storage Tanks

Wine storage tanks perform two functions in the winery:

- Facilitation of post-fermentation processing operations such as racking, filtration, malolactic fermentation and bottling. In this role, the typical storage tank is filled and emptied several times per year with the wine being transferred from tank to tank. Many of these operations occur prior to chilling of the wine. Emissions from such operations are "working losses" which occur as a result of the displacement of the vapor space of the tank into the atmosphere during the filling operations. For insulated tanks (or tanks installed in a climate-controlled building), working losses are a function only of the ethanol content, the ambient temperature and the tank throughput.

- Static storage of wine between processing operations up to the final operation of bottling. In this operation, a common objective is to avoid oxidation of the wine by both minimizing the wine temperature and the exposure of the wine to air. In such cases, the wine may be maintained at a temperature below ambient, often in the range of 35-40 ^{o}F, however, since the tank cannot be always maintained at this temperature due to processing considerations, the lower temperatures are not an NSR condition on the permit . Also, the tanks are typically maintained at as high a liquid level as possible to minimize contact with oxygen. Emissions from static storage are

"breathing losses" which are the result of diurnal heating and cooling caused by the effect of daily variations in atmospheric conditions on the contents of the tank. For a well-insulated tank, equipped with a pressure/vacuum relief valve per the requirements of District Rule 4694, breathing losses are considered to be negligible since the insulation serves to maintain a relatively uniform temperature inside the tank while the pressure/vacuum valve serves to contain small internal variations, preventing escape of vapor to the atmosphere.

Table 1 presents emission factors for wine and spirits storage in ambient temperature tanks (non-refrigerated), equipped with insulation and/or located in a climate-controlled building. The tabular values have been developed using the District's emissions modeling procedure for wine and spirits tanks (see FYI-295). As shown, different emission factors are presented for tanks located in the three different regions of the District based upon higher ambient temperatures in the southern part of the Central Valley. All factors represent working losses only since breathing losses are considered negligible as discussed above. Emission factors for concentrations not listed in Table 1 may be interpolated from the table.

Table 1: Emission Factors for Wine and Spirits Storage Tanks by Region in the San Joaquin Valley
lb-VOC per 1,000 gallons of throughput

Applicability:	1. Vertical Fixed-Roof tank, insulated or located in climate-controlled building 2. Ambient temperature storage					
	Southern Region		**Central Region**		**Northern Region**	
Vol %	**Annual**	**Daily**	**Annual**	**Daily**	**Annual**	**Daily**
2	0.016	0.029	0.015	0.027	0.014	0.024
4	0.033	0.062	0.032	0.057	0.030	0.051
6	0.052	0.099	0.050	0.092	0.047	0.081
8	0.074	0.141	0.071	0.130	0.067	0.116
10	0.098	0.187	0.094	0.173	0.088	0.154
12	0.125	0.239	0.120	0.221	0.112	0.196
14	0.143	0.273	0.137	0.252	0.128	0.223
16	0.159	0.302	0.153	0.280	0.143	0.248
18	0.176	0.334	0.169	0.310	0.159	0.275
20	0.195	0.368	0.187	0.341	0.175	0.303
22	0.215	0.404	0.207	0.375	0.194	0.333
24	0.237	0.443	0.227	0.412	0.213	0.366
26	0.251	0.470	0.242	0.436	0.227	0.388
28	0.264	0.494	0.254	0.458	0.238	0.408
30	0.278	0.518	0.267	0.481	0.251	0.428
32	0.293	0.544	0.281	0.506	0.264	0.450
34	0.308	0.572	0.296	0.531	0.278	0.473
36	0.324	0.600	0.312	0.559	0.293	0.498
38	0.335	0.620	0.323	0.577	0.303	0.514
40	0.347	0.640	0.334	0.595	0.313	0.530
42	0.358	0.660	0.345	0.614	0.324	0.546
44	0.371	0.681	0.357	0.634	0.335	0.565
46	0.384	0.703	0.370	0.655	0.348	0.584
48	0.396	0.724	0.381	0.674	0.359	0.602
50	0.405	0.738	0.390	0.688	0.367	0.615
52	0.415	0.754	0.400	0.703	0.376	0.628
54	0.425	0.770	0.410	0.718	0.386	0.642
56	0.436	0.788	0.420	0.734	0.396	0.657
58	0.447	0.805	0.431	0.751	0.406	0.673
60	0.455	0.818	0.438	0.764	0.413	0.684
62	0.462	0.832	0.446	0.777	0.420	0.695
64	0.471	0.847	0.454	0.790	0.427	0.708
66	0.479	0.863	0.462	0.805	0.435	0.721
68	0.489	0.879	0.471	0.820	0.443	0.735
70	0.497	0.896	0.479	0.836	0.451	0.748
72	0.507	0.914	0.488	0.853	0.460	0.763
74	0.517	0.933	0.498	0.871	0.468	0.779
76	0.527	0.954	0.508	0.890	0.478	0.796
78	0.539	0.976	0.519	0.910	0.489	0.814
80	0.552	1.000	0.531	0.932	0.500	0.833
82	0.566	1.025	0.545	0.955	0.513	0.855
84	0.581	1.052	0.559	0.981	0.526	0.877
86	0.598	1.083	0.576	1.010	0.542	0.903
88	0.617	1.120	0.595	1.044	0.559	0.934
90	0.639	1.161	0.616	1.082	0.579	0.967
92	0.663	1.206	0.639	1.124	0.601	1.004
94	0.694	1.261	0.669	1.175	0.629	1.050
96	0.742	1.339	0.715	1.249	0.673	1.118
98	0.786	1.409	0.757	1.315	0.714	1.179
100	0.838	1.534	0.807	1.437	0.762	1.278

For purposes of calculating actual annual emissions, the annual data in Table 1 have been curve-fitted based on an equation of the form $E_f = ap^2 + bp + c$, where p = vol% ethanol (e.g., 20% = 0.20). The constants for the equation are as follows:

Constants for Emission Factor Correlation $E_f = \mathbf{a}p^2 + \mathbf{b}p + \mathbf{c}$ p = volume percentage ethanol			
Southern Region			
Concentration Range	**a**	**b**	**c**
0 to 24%	-0.45139	1.0958	0
>24 to 66%	-0.47357	1.0088	0.019486
>66% to 92%	1.5279	-1.7467	0.97149
>92% to 100%	6.7857	-10.819	4.8713
Central Region			
Concentration Range	**a**	**b**	**c**
0 to 24%	-0.45139	1.0542	0
>24 to 66%	-0.45117	0.96968	0.018554
>66% to 92%	1.5254	-1.7662	0.96812
>92% to 100%	6.4286	-10.223	4.6016
Northern Region			
Concentration Range	**a**	**b**	**c**
0 to 24%	-0.38194	0.97917	0
>24 to 66%	-0.42159	0.91316	0.016237
>66% to 92%	1.3799	-1.5774	0.87906
>92% to 100%	6.6071	-10.651	4.8061

The mathematical correlation for concentrations up to 24% provides a slightly conservative estimate of the emission factor relative to the data in Table 1 based on smoothing the impact of the linear interpolation process employed in development of the ethanol/water data base used for modeling wine tank emissions in EPA Tanks 4.0. Mathematical correlations for concentrations greater than 24% are based on a least square analysis of the data in Table 1.

Use of Table I and correlations to estimate emissions insulated wine storage tank subject to ambient temperature is demonstrated by the following examples:

Example 1 (wine storage tank with daily and annual throughput limits and maximum ethanol content) – estimate the potential to emit for an insulated 100,000 gallon nominal capacity steel storage tank to store wine with maximum concentration of 14 vol% ethanol . Maximum daily throughput is one tank turn or 100,000 gallons/day. Maximum annual throughput will be 600,000 gallons per year. The tank will be installed in a facility located in the Southern Region.

For a storage tank located in the Southern Region and handling up to 14% ethanol, the annual emission factor is 0.143 lb-VOC/1000 gallons throughput and the daily emission factor is 0.273 lb-VOC/1000 gallons throughput.

Daily PE = 100,000 gallons/day x 0.273 lb-VOC/1000 gallons = 27.3 lb-VOC/day

Annual PE = 600,000 gallons/year x 0.143 lb-VOC/1000 gallons = 86 lb-VOC/year

DEL conditions for this example would be:

- *Ethanol content of wine in this tank shall not exceed 14.0 percent by volume. [District Rule 2201]*

- *Tank throughput shall not exceed either of the following limits: 100,000 gallons in any one day or 600,000 gallons per year. [District Rule 2201]*

Example 2 (wine and spirits storage tank subject to a daily throughput limit and an SLC limit on annual emissions)– – estimate the potential to emit for an insulated 100,000 gallon nominal capacity steel storage tank to store spirits with maximum concentration of 80 vol% ethanol. Maximum allowed annual emissions for the tanks in the SLC are 10,000 lb/year. Maximum daily throughput is one tank turn or 100,000 gallons/day. The tank will be installed in a facility located in the Northern Region.

For a storage tank located in the Northern Region and handling up to 80% ethanol, the daily emission factor is 0.833 lb-VOC/1000 gallons throughput. Since the annual emissions are constrained by the SLC, an annual emission factor is not needed for the PE calculation but will be placed on the permit for purposes of demonstrating annual compliance on an ongoing basis. Since the ethanol concentration can vary from 0% to 80%, three separate correlation equations are required to cover the potential range:

For concentration p = 0 – 24%: $E_f = ap^2 + bp + c$

a = -0.38194
b = 0.97917
c = 0

For concentration p = 24% < p < 66%: $E_f = ap^2 + bp + c$

a = -0.42159
b = 0.91316
c = 0.016237

For concentration p = 66% < p < 80%: $E_f = ap^2 + bp + c$

a = 1.3799
b = -1.5774
c = 0.87906

Daily PE = 100,000 gallons/day x 0.833 lb-VOC/1000 gallons = 83.3 lb-VOC/day

DEL conditions for this example would be:

- *Ethanol content of wine or spirits in this tank shall not exceed 80.0 percent by volume. [District Rule 2201]*
- *Tank throughput shall not exceed 100,000 gallons in any one day. [District Rule 2201]*
- *Combined annual VOC emissions from all wine storage operations under permit units X-XXXX-XXX through X-XXXX-XXX shall not exceed 10,000 pounds per year. [District Rule 2201]*
- *Combined annual VOC emissions from wine storage operations under permit units X-XXXX-XXX through X-XXXX-XXX shall be determined 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. [District Rule 2201]*
- *The annual VOC wine storage emission factor for each wine or spirits 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 1000 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 = -0.38194, b = 0.97917 and c = 0. *For concentrations greater than 24 volume % up to and including 66 volume% ,* a = -0.42159, b = 0.91316 and c = 0.016237. *For concentrations greater than 66 volume % up to and including 80 volume %,* a = 1.3799, b = -1.5774 and c = 0.87906. *[District Rule 2201]*

Wine Fermentation Tanks

During the wine fermentation process, sugar in the grape juice reacts with yeast to form alcohol (ethanol) and carbon dioxide (CO_2) gas. Ethanol is emitted into the atmosphere through evaporation. According to Williams and Boulton[1], the only important mechanism for ethanol loss is equilibrium evaporation into the escaping CO_2 stream. The physical entrainment of ethanol droplets in the CO_2 gas is insignificant in modern enclosed fermentation vessels. These researchers' model indicates that as fermentation temperature increases, ethanol loss increases exponentially. Since red wines are fermented at significantly higher temperatures than white wine, a different emission factor is required for each case.

Annual Fermentation Emission Factors

The California Air Resources Board (CARB) has established annual emission factors for fermentation of both red and white wines, based on the computer model developed by Williams and Boulton. The emission factors were developed for purposes of emission

[1] L.A. Williams and R. Boulton, Modeling and Prediction of Evaporative Ethanol Loss During Wine Fermentation, American Journal of Enology and Vitriculture, 32:234-242, (1983).

inventory estimation and represent a typical wine fermentation operation based on average fermentation temperatures and average initial sugar concentrations (°Brix) and are presented in Emissions Inventory Procedural Manual, Section 5.1, Air Resources Board, 1997. These factors have been adopted by the District in Rule 4694, *Wine Fermentation and Storage Tanks*. The established factors are as follows:

Red Wine Fermentation: 6.2 lb-VOC/1000 gallons fermented per year (78 °F fermentation temperature, 21.8 °Brix)

White Wine Fermentation: 2.5 lb-VOC/1000 gallons fermented per year (58 °F fermentation temperature, 20.4 °Brix)

Daily Fermentation Emission Factors

The District has developed factors for daily Potential to Emit using the previously-referenced research by Williams and Boulton (see Appendix A). To ensure the factors represent true Potential to Emit, the daily emission factors were developed based on typical maximum fermentation temperatures and starting sugar concentrations rather than average values:

Red Wine Fermentation: 3.46 lb-VOC/1000 gallons tank capacity per day (85 °F fermentation temperature, 22.5 °Brix)

White Wine Fermentation: 1.62 lb-VOC/1000 gallons tank capacity per day (70 °F fermentation temperature, 22.5 °Brix)

Example 3 (fermentation tank) - estimate the daily and annual potential to emit for a 200,000 gallon nominal capacity fermentation tank to exclusively ferment red wine. Maximum fermentation throughput will be 900,000 gallons red wine per year. The tank will not be used for storage.

Daily $PE_{fermentation}$ = 3.46 lb-VOC/day per 1000 gallons nominal tank capacity x 200 Mgal nominal

Daily $PE_{fermentation}$ = 692.1 lb/day

Daily PE = Daily $PE_{fermentation}$ = 692.1 lb/day

Annual PE = 6.2 lb-VOC per 1000 gallons fermented x 900 Mgal/year = 5,580 lb-VOC/yr

Example 5 (fermentation and storage tank) - estimate the daily and annual potential to emit for a 100,000 gallon nominal capacity fermentation tank to ferment red wine. Maximum fermentation throughput will be 450,000 gallons red wine per year. The tank will also be used for storage identical with example 1:

In this case,

Daily PE = the larger of either Daily $PE_{fermentation}$ or Daily $PE_{storage}$

And.

Annual PE = Annual $PE_{fermentation}$ + Annual $PE_{storage}$

Calculating the Daily PE:

Daily $PE_{fermentation}$ = 3.46 lb-VOC/day per 1000 gallons nominal tank capacity x 100 Mgal nominal

Daily $PE_{fermentation}$ = 346.0 lb-VOC/day

From example 1,

Daily $PE_{storage}$ = 27.3 lb-VOC/day

Therefore,

Daily PE = 346.0 lb/day

Calculating the Annual PE:

Annual $PE_{fermentation}$ = 6.2 lb-VOC per 1000 gallons fermented x 450 Mgal/year = 2,790 lb-VOC/yr

From example 1,

Annual $PE_{storage}$ = 97 lb-VOC/year

Therefore,

Annual PE = 2,790 + 97 = 2,887 lb/year

Appendix A

Daily Emission Factor for Wine Fermentation

Appendix A

The emission factor for daily PE is based on the following:

- Estimation of maximum daily fermentation emissions is based on Figure 7 from the Williams and Boulton work referenced in the body of this document.
- Maximum red wine fermentation temperature is assumed to be 85 ^{o}F.
- Maximum white wine fermentation temperature is assumed to be 70 ^{o}F.
- Maximum working capacity of a red wine fermenter is 80% of tank maximum capacity.
- Maximum working capacity of a white wine fermenter is 95% of tank maximum capacity.

Figure 7 from Williams and Boulton indicates the ethanol emission rate (mg per hour per liter of wine) versus time for various fermentation temperatures. The total emissions in mg per liter of wine for any time period is the area under the curve. Thus, for any given temperature, figure 7 can be graphically integrated over the 24 hour period during which maximum emissions occur. A copy of figure 7 is attached which indicates the integration interval for red wine (85 ^{o}F) and for white wine (70 ^{o}F). Results of integration of Figure 7 are presented in the following table:

Graphical Integration Results to Determine Daily Fermentation Emission Factor from Figure 7 of Williams and Boulton

	Red Wine	White Wine
Maximum 24 hour Emissions (mg/liter of wine per day)	518.6	203.9
Maximum 24 hour Emissions (1b/1000 gallons of wine per day)	4.33	1.70
Maximum Batch Size (% of Tank Capacity)	80%	95%
Daily Emission Factor (lb/1000 gallons tank capacity per day)	3.46	1.62

Appendix A

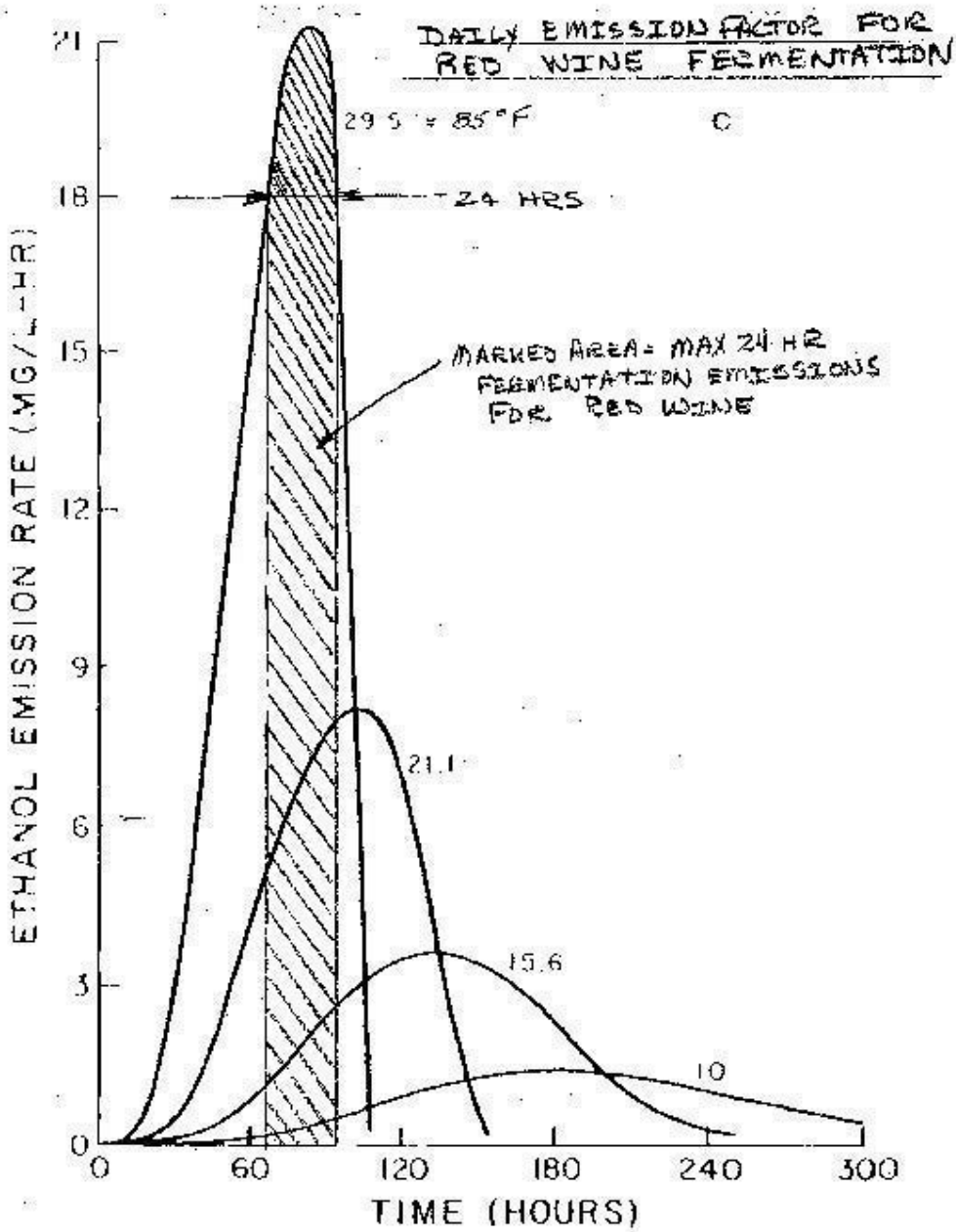

Fig. 7. The influence of fermentation temperature on a) the fermentation rate, b) the vapor phase ethanol concentration, and c) the rate of ethanol emission. (Initial sugar content of 22.5°Brix, isothermal fermentation at indicated temperature.)

Appendix A

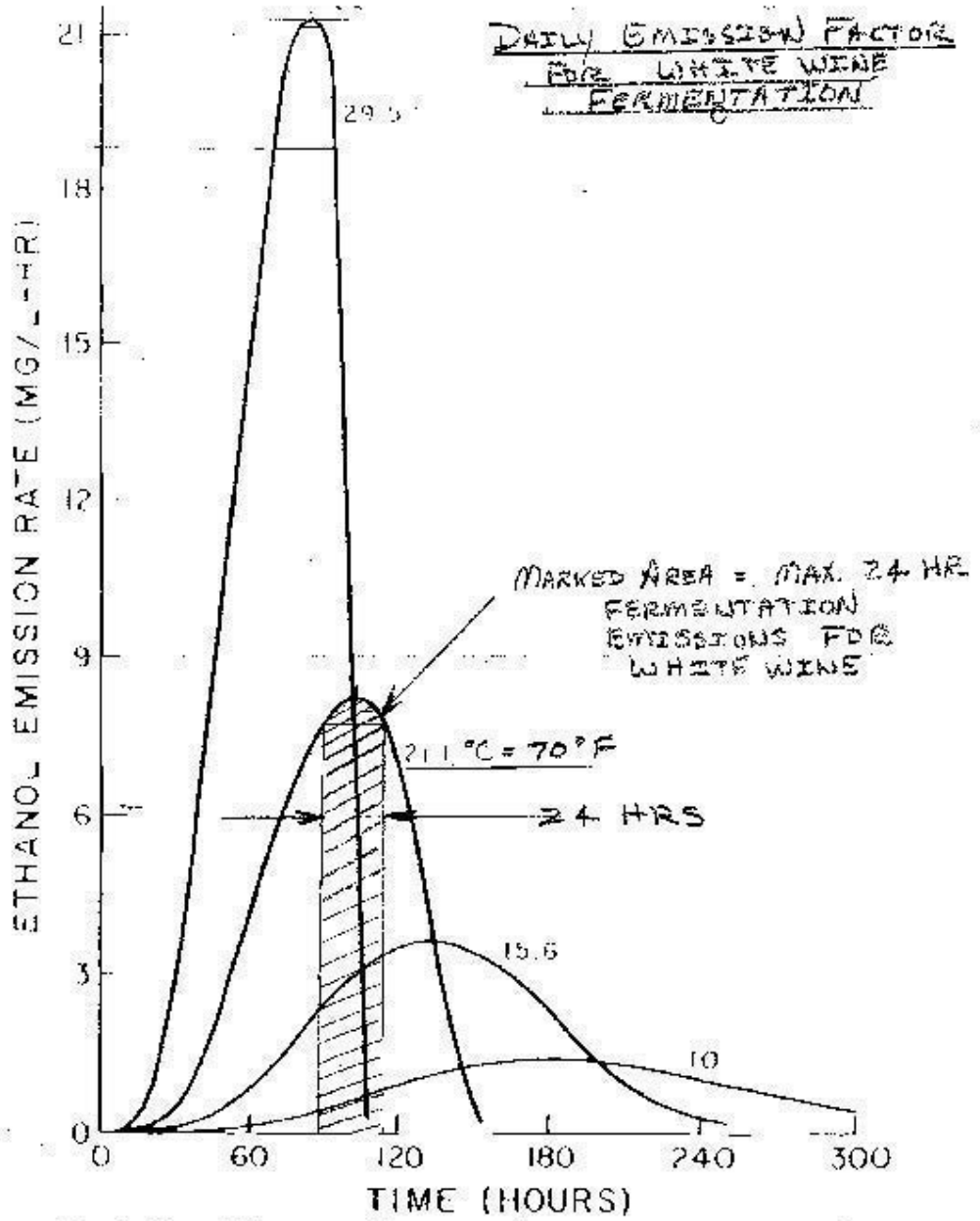

Fig. 7. The influence of fermentation temperature on a) the fermentation rate, b) the vapor phase ethanol concentration, and c) the rate of ethanol emission. (Initial sugar content of 22.5°Brix, isothermal fermentation at indicated temperature.)

Appendix F
Compliance Certification Letter

McMANIS
FAMILY VINEYARDS

May 17, 2022

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

Subject: Compliance Statement for McManis Family Vineyards, Ripon Winery, Facility N-9371

Dear Mr. Peirce:

In accordance with Rule 2201, Section 4.15, "Additional Requirements for New Major Sources and Federal Major Modifications," McManis Family Vineyards is pleased to provide this compliance statement regarding its proposed 24 wine fermentation tank project (District Project N-1183142).

All major stationary sources in California owned or operated by McManis Family Vineyards, or by any entity controlling, controlled by, or under common control with the Ripon Winery, and which are subject to emission limitations, are in compliance or on a schedule for compliance with all applicable emission limitations and standards. These sources include the following facility:

Facility #1: McManis Family Vineyards
18700 E. River Road
Ripon, CA 95366

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

Please contact me if you have any questions regarding this certification.

Sincerely,

Justin McManis, Vice-President Winery Operations
McManis Family Vineyards

San Joaquin Valley Air Pollution Control District

TITLE V MODIFICATION - COMPLIANCE CERTIFICATION FORM

I. TYPE OF PERMIT ACTION (Check appropriate box)

☐ ADMINISTRATIVE AMENDMENT ☐ MINOR MODIFICATION ☒ SIGNIFICANT MODIFICATION

COMPANY NAME: McManis Family Vineyards	FACILITY ID: N-9371
1. Type of Organization: ☒ Corporation ☐ Sole Ownership ☐ Government ☐ Partnership ☐ Utility	
2. Owner's Name: McManis Family Vineyards	
3. Agent to the Owner: David Briggs, M.F. Strange & Associates	

II. COMPLIANCE CERTIFICATION (Read each statement carefully and initial **applicable** 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 basis.

⊗ 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.

○ For minor modifications, this application meets the criteria for use of minor permit modification procedures pursuant to District Rule 2520.

I declare, under penalty of perjury under the laws of the state of California, that the forgoing is correct and true:

Signature of Responsible Official

May 16, 2022
Date

Justin McManis
Name of Responsible Official (please print)

Vice-President Winery Operations
Title of Responsible Official (please print)

Appendix G
ERC Withdrawal Calculations

ERC Withdrawal Calculations

VOC	1st Quarter (lb)	2nd Quarter (lb)	3rd Quarter (lb)	4th Quarter (lb)
ERC N-1559-1	13,752	22,879	14,803	14,093
Re-adjustment (Allowed per section 4.13.8 of Rule 2201)	--	-12,869	+12,869	--
ERC after readjustment	13,752	10,010	27,672	14,093
Offsets Required (includes distance offset ratio) for this project	**0**	**0**	**27,672**	**13,848**
Credits reissued under ERC N-ZZZZ-1	13,752	10,010	0	245

Appendix H
Risk Management Review Summary

San Joaquin Valley Air Pollution Control District
Risks Management Review

To:	Jag S Kahlon – Permit Services
From:	Diana Walker – Technical Services
Date:	November 29, 2021
Facility Name:	MCMANIS FAMILY VINEYARDS
Location:	18700 E RIVER RD , RIPON
Application #(s):	N-9371-344-1 thru 367-1
Project #:	N-1183142

1. Summary

1.1 RMR

Units	Prioritization Score	Acute Hazard Index	Chronic Hazard Index	Maximum Individual Cancer Risk	T-BACT Required	Special Permit Requirements
344 thru 367	1.91	0.27	0.00	1.51E-07	No	Yes
Project Totals	1.91	0.27	0.00	1.51E-07		
Facility Totals	>1	0.27	0.00	1.51E-07		

1.2 Proposed Permit Requirements

To ensure that human health risks will not exceed District allowable levels; the following shall be included as requirements for:

Unit # 344-1 thru 367-1

1. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction.

2. Project Description

Technical Services received a request on November 1, 2021 to perform a Risk Management Review (RMR) and Ambient Air Quality Analysis (AAQA) for the following:

- 344-1 thru 367-1 - MODIFICATION OF 36,600 GALLON STAINLESS STEEL WINE STORAGE TANK (TANK #AAA-5) WITH PRESSURE/VACUUM VALVE AND INSULATION: ALLOW TO CONDUCT FERMENTATION IN THIS TANK
- Please note, since there is no emission standard for VOCs, an AAQA was not ran for this project.

3. RMR Report

3.1 Analysis

The District performed an analysis pursuant to the District's Risk Management Policy for Permitting New and Modified Sources (APR 1905, May 28, 2015) to determine the possible cancer and non-cancer health impact to the nearest resident or worksite. This policy requires that an assessment be performed on a unit by unit basis, project basis, and on a facility-wide basis. If a preliminary prioritization analysis demonstrates that:

- A unit's prioritization score is less than the District's significance threshold and;
- The project's prioritization score is less than the District's significance threshold and;
- The facility's total prioritization score is less than the District's significance threshold

Then, generally no further analysis is required.

The District's significant prioritization score threshold is defined as being equal to or greater than 1.0. If a preliminary analysis demonstrates that either the unit's or the project's or the facility's total prioritization score is greater than the District threshold, a screening or a refined assessment is required

If a refined assessment is greater than one in a million but less than 20 in one million for carcinogenic impacts (Cancer Risk) and less than 1.0 for the Acute and Chronic hazard indices (Non-Carcinogenic) on a unit by unit basis, project basis and on a facility-wide basis the proposed application is considered less than significant. For units that exceed a cancer risk of 1 in one million, Toxic Best Available Control Technology (TBACT) must be implemented.

Toxic emissions for this project were calculated using the following methods:

- Toxic emission for this unit were calculated using emission factors derived from *Fifth Edition, Volume I, Chapter 9: Food and Agricultural Industries, Section 9.12.2: Wines and Brandy* in the 1988 CARB report, *Ethanol Emissions and Control for Wine Fermentation and Tanks*.

These emissions were input into the San Joaquin Valley APCD's Hazard Assessment and Reporting Program (SHARP). In accordance with the District's Risk Management Policy, risks from the proposed unit's toxic emissions were prioritized using the procedure in the 2016 CAPCOA Facility Prioritization Guidelines. The prioritization score for this proposed facility was greater than 1.0 (see RMR Summary Table). Therefore, a refined health risk assessment was required.

The AERMOD model was used, with the parameters outlined below and meteorological data for 2013-2017 from Modesto (Rural) to determine the dispersion factors (i.e., the predicted concentration or X divided by the normalized source strength or Q) for a receptor grid. These dispersion factors were input into the SHARP Program, which then used the Air Dispersion Modeling and Risk Tool (ADMRT) of the Hot Spots Analysis and Reporting Program Version 2 (HARP 2) to calculate the chronic and acute hazard indices and the carcinogenic risk for the project.

The following parameters were used for the review:

Source Process Rates					
Unit ID	**Process ID**	**Process Material**	**Process Units**	**Hourly Process Rate**	**Annual Process Rate**
344 thru 367 (each)	1	VOC	Lbs	5.28	1,153

Point Source Parameters						
Unit ID	**Unit Description**	**Release Height (m)**	**Temp. (°K)**	**Exit Velocity (m/sec)**	**Stack Diameter (m)**	**Vertical/ Horizontal/ Capped**
344 thru 367 (each)	Wine Fermentation Tank	6.10	299.67	0.19	0.76	Vertical

4. Conclusion

4.1 RMR

The cumulative acute and chronic indices for this facility, including this project, are below 1.0; and the cumulative cancer risk for this facility, including this project, is less than 20 in a million. In addition, the cancer risk for each unit in this project is less than 1.0 in a million. **In accordance with the District's Risk Management Policy, the project is approved without Toxic Best Available Control Technology (T-BACT).**

To ensure that human health risks will not exceed District allowable levels; the permit requirements listed on page 1 of this report must be included for this proposed unit.

These conclusions are based on the data provided by the applicant and the project engineer. Therefore, this analysis is valid only as long as the proposed data and parameters do not change.

5. Attachments

A. Modeling request from the project engineer

B. Additional information from the applicant/project engineer

C. Prioritization score w/ toxic emissions summary

D. Facility Summary

Appendix I
ERC Surplus Analysis

San Joaquin Valley Air Pollution Control District
Surplus ERC Analysis

Facility: Name: Malibu Boats LLC
Mailing Address: One Malibu Ct
Merced, CA 95341
Contact Person: Mike Fontinell
Telephone #: (865) 242-8771
ERC Certificate #: N-942-1
Project #: N-1210753

Date: March 11, 2021
Engineer: Mohamed Muthana
Lead Engineer: Derek Fukuda

I. Proposal

Malibu Boats LLC has requested the District to perform an analysis of the current surplus value of the following Emission Reduction Credit (ERC) certificate:

Proposed ERC Certificate	
Certificate #	**Criteria Pollutant**
N-942-1	VOC

This analysis establishes the surplus value of the ERC certificate as of the date of this analysis. The current face value and surplus value of the ERC certificate evaluated in this analysis are summarized in the following table:

Criteria Pollutant: VOC

ERC Certificate N-942-1				
Pollutant	1st Qtr. (lb/qtr)	2nd Qtr. (lb/qtr)	3rd Qtr. (lb/qtr)	4th Qtr. (lb/qtr)
Current Value	13,753	22,879	14,803	14,093
Surplus Value	13,753	22,879	14,803	14,093

II. Individual ERC Certificate Analysis

ERC Certificate N-942-1

A. ERC Background

Criteria Pollutant: VOC

ERC Certificate N-942-1 was issued to Malibu Boats LLC on December 19, 2012 under Project N-1101305. The reductions were generated from the modification of boat manufacturing operations, including gelcoat application operations (Permit Units N-3941-1, N-3941-2, and N-3941-4) and polyester resins and adhesives application operations (Permit Units N-3941-3 and N-3941-5), to reduce the use of VOC-containing materials. The certificate has never been used or split. The following table summarizes the value of the original certificate, which is the subject of the current District analysis:

ERC Certificate N-942-1				
	1st Qtr. (lb/qtr)	2nd Qtr. (lb/qtr)	3rd Qtr. (lb/qtr)	4th Qtr. (lb/qtr)
Original Value	13,753	22,879	14,803	14,093
Current Value	13,753	22,879	14,803	14,093

B. Applicable Rules and Regulations at Time of Original Banking Project

Based on the application review for the original ERC banking project, the following rules and regulations were evaluated to determine the surplus value of actual emission reductions of VOC generated by the reduction project:

1. District Rules

Rule 2301 - Emission Reduction Credit Banking (12/17/92)

The application review for the original ERC banking project demonstrated that the ERC credit complied with District Rule 2301 requirements at the time it was issued.

Rule 4684 - Polyester Resin Operations (8/18/2011)
Rule 4653 - Adhesives and Sealants (9/16/2010)
Rule 4663 - Organic Solvent Cleaning Storage, and Disposal (9/20/2007)

The application review for the original ERC banking project demonstrated that the boat manufacturing operations' VOC emission limits were below the limits in the rules listed above. Therefore, the original VOC emission reductions were surplus of all applicable District rule requirements.

2. Federal Rules and Regulations

40 CFR Part 63 Subpart VVVV - National Emission Standards for Hazardous Air Pollutants for Boat Manufacturing

The application review for the original ERC banking project demonstrated that the VOC and Hazardous Air Pollutant (HAP) emissions from the boat manufacturing operations were below the limits of this subpart. Therefore, the emission reductions were surplus of the requirements of this subpart at the time the ERC was originally banked.

C. New or Modified Rule and Regulations Applicable to the Original Banking Project

All District and federal rules and regulations that have been adopted or amended since the date the original banking project was finalized will be evaluated below:

1. District Rules:

There are no new or modified District rules that would apply to the boat manufacturing operations shut down in the original ERC banking project. Therefore, the original VOC emission reductions continue to be surplus of District rule requirements.

2. Federal Rules and Regulations:

40 CFR Part 63 Subpart VVVV - National Emission Standards for Hazardous Air Pollutants for Boat Manufacturing (11/19/2020)

The amendments to this subpart included changes to definitions and recordkeeping requirements. The equation specified in section 63.5698 used to determine the maximum allowable HAP emissions for molding resin and gel coating operations, and the HAP content limit for fabric adhesives have not changed since the original ERC banking project. Therefore, the original VOC emission reductions continue to be surplus of this subpart.

D. Surplus at Time of Use Adjustments to ERC Quantities

As demonstrated in the section above, the emissions reductions from permit units in the original banking project continue to be surplus of all applicable District and federal rules and regulations. Therefore, no discounting to the ERC values are necessary for surplus at time of use considerations.

E. Surplus Value of ERC Certificate

The emissions continue to be surplus of all District and federal rules and regulations; therefore, no adjustments to the ERC values are necessary.

ERC Certificate N-942-1– Criteria Pollutant VOC					
		1st Qtr. (lb/qtr)	2nd Qtr. (lb/qtr)	3rd Qtr. (lb/qtr)	4th Qtr. (lb/qtr)
(A)	Current ERC Quantity	13,753	22,879	14,803	14,093
(B)	Percent Discount	**0.0%**	**0.0%**	**0.0%**	**0.0%**
(C) = (A) x [1 – (B)]	**Surplus Value**	13,753	22,879	14,803	14,093