



April 5, 2021

Mr. Tony Sanfillipo
CBUS Ops Inc
P. O. Box 1260
Woodbridge, CA 95258-1260

Re: Proposed ATC / Certificate of Conformity (Significant Mod)
Facility Number: N-2321
Project Number: N-1204622

Dear Mr. Sanfillipo:

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 applicant has proposed to install a 650,000 gallon wine storage tank.

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: Mario Zuniga, EPA (w/enclosure) via EPS

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San Joaquin Valley Air Pollution Control District

Authority to Construct Application Review

Wine Storage Tank

Facility Name: CBUS Ops Inc (dba Woodbridge Winery) Date: March 31, 2021
Mailing Address: P. O. Box 1260 Engineer: Rupi Gill
Woodbridge, CA 95258-1260 Lead Engineer: James Harader
Contact Person: Tony Sanfillipo
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Application #(s): N-2321-898-0
Project #: N-1204622
Deemed Complete: January 14, 2021

I. Proposal

CBUS Ops Inc., has requested an Authority to Construct (ATC) permit for the installation of a 650,000 gallon wine storage tank.

The draft ATC is included in Appendix A.

Woodbridge Winery received their Title V Permit on September 17, 2018. This modification can be classified as a Title V significant modification pursuant to Rule 2520, and can be processed with a Certificate of Conformity (COC). Since the facility has specifically requested that this project be processed in that manner, the 45-day EPA comment period will be satisfied prior to the issuance of the Authority to Construct. Woodbridge Winery must apply to administratively amend their Title V permit.

II. Applicable Rules

District Rule 2201 New and Modified Stationary Source Review Rule (8/15/19)
District Rule 2520 Federally Mandated Operating Permits (8/15/19)
District Rule 4001 New Source Performance Standards (4/14/99)
District Rule 4002 National Emissions Standards for Hazardous Air Pollutants (5/20/04)
District Rule 4101 Visible Emissions (2/17/05)
District Rule 4102 Nuisance (12/17/92)
District Rule 4623 Storage of Organic Liquids (5/19/05)
District Rule 4694 Wine Fermentation and Storage Tanks (12/15/05)
District Rule 4695 Brandy Aging and Wine Aging Operation (09/17/09)
CH&SC 41700 Health Risk Assessment
CH&SC 42301.6 School Notice
Public Resources Code 21000-21177: California Environmental Quality Act (CEQA)

California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000-15387: CEQA Guidelines

III. Project Location

The facility is located at 5950 E Woodbridge Road in Acampo, CA. The equipment is not located within 1,000 feet of the outer boundary of a K-12 school. Therefore, the public notification requirement of California Health and Safety Code 42301.6 is not applicable to this project.

IV. Process Description

The proposed tank will be used to store still wine used in the production of champagne.

V. Equipment Listing

N-2321-898-0: 650,000 GALLON NOMINAL STAINLESS STEEL STILL WINE STORAGE TANK (TANK # TK 1707) WITH PRESSURE/VACUUM VALVE AND INSULATION

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

- The nominal tank dimensions are 53 feet in diameter and 43.667 feet in height with a proposed volume of 650,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201]

VI. Emission Control Technology Evaluation

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

VII. General Calculations

A. Assumptions

- Typically, for enclosed tanks with insulation (or equivalent) and P/V valves, breathing losses from storage of wine are assumed to be negligible.
- Storage tank daily and annual maximum ethanol content of stored wine is 16% (proposed by the applicant)
- The storage tank throughput rates listed in the following table were proposed by Woodbridge Winery for this project:

Permits	Nominal Tank Size (gallons)	Daily Throughput (gal/day)	Annual Throughput (gal/year)
N-2321-898-0	650,000	360,000	3,900,000

B. Emission Factors

The emissions factors for wine storage with maximum ethanol content of 16% in the proposed tank are taken from District FYI-114, *VOC Emission Factors for Wine Fermentation and Storage Tanks* (Revised 6/13/12, excerpts from this guidance applicable to wine storage are included in Appendix H):

Wine Type	EF (lb-VOC/1,000 gallon wine tank throughput)	EF (lb-VOC/1,000 gallon wine tank throughput)	Source
	Daily	Annual	
White	0.248	0.143	District FYI-114

C. Calculations

1. Pre-Project Potential to Emit (PE1)

Since this is a new emissions unit, PE1 = 0 for all pollutants.

2. Post-Project Potential to Emit (PE2)

Daily VOC PE2 (lbs/day)			
Permits	Daily Throughput (gallons)	EF (lb-VOC/1,000 gal)	VOC (lbs/day)
N-2321-898-0	360,000	0.248	89.3

Annual VOC PE2 (lbs/yr)			
Permits	Annual Throughput (gallons)	EF (lb-VOC/1,000 gal)	VOC (lbs/yr)
N-2321-898-0	3,900,000	0.143	558

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.

Facility emissions are already above the Offset and Major Source Thresholds for VOC emissions; therefore, SSPE1 calculations are not necessary.

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

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.

Since facility emissions are already above the Offset and Major Source Thresholds for VOC emissions, SSPE2 calculations are not necessary.

5. Major Source Determination

Rule 2201 Major Source Determination:

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

- any ERCs associated with the stationary source
- Emissions from non-road IC engines (i.e. IC engines at a particular site at the facility for less than 12 months), pursuant to the Clean Air Act, Title 3, Section 302, US Codes 7602(j) and (z)
- Fugitive emissions, except for the specific source categories specified in 40 CFR 70.2

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

Rule 2410 Major Source Determination:

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

This facility has an existing specific limiting condition (SLC) that limits VOC emissions from all wine fermentation and wine storage operations (active permits to operate PTOs and active Authority to Construct ATCs N-2321-2-8 through N-2321-883-0 issued prior to current project) to 1,167,178 pounds of VOC per year, equivalent to 583.6 tons of VOC per year. Since the emissions from these operations alone exceed the PSD major source threshold as shown in the following table, no other units that emit VOCs need to be evaluated for Rule 2410 Major Source determination purposes.

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

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

Since the VOC emissions are not being reduced to bring the Facility PE down below the PSD major source threshold, the facility will remain a PSD major source for VOC.

6. Baseline Emissions (BE)

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

Pursuant to District Rule 2201, BE = PE1 for:

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

otherwise,

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

Since this is a new emissions unit, BE = PE1 = 0 for all pollutants.

7. SB 288 Major Modification

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

Since this facility is a major source for VOCs, the project's PE2 is compared to the SB 288 Major Modification Thresholds in the following table in order to determine if further 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	558	50,000	No

Since VOC emissions from this permitting action do not exceed the SB 288 Major Modification Threshold, this project does not constitute an SB 288 Major Modification and no further discussion is required.

8. Federal Major Modification / New Major Source

Federal Major Modification

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

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 can not 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 the PE2 for each new unit included in this project:

$$\begin{aligned} \text{Emission Increase} &= \text{PE2} \\ &= 558 \text{ lbs/yr} \end{aligned}$$

In conclusion, the project's combined total emission increases are summarized in the following table and are compared to the Federal Major Modification Thresholds.

Federal Major Modification Thresholds for Emission Increases			
Pollutant	Total Emissions Increases (lb/yr)	Thresholds (lb/yr)	Federal Major Modification?
VOC*	558	0	Yes

*If there is any emission increases in NO_x or VOC, this project is a Federal Major Modification and no further analysis is required.

Since there is an increase in VOC emissions, this project constitutes a Federal Major Modification. 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 be surplus at the time of use (ATC issuance).

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.

$$FOQ = \sum (PE2 - AE) \times \text{Federal offset ratio}$$

Actual Emissions

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.

Since this is a new unit, AE = 0

Federal Offset Ratio

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

Federal Offset Quantity (FOQ)

Since this project only include new unit.

$$\text{FOQ} = \text{PE2} \times \text{Federal offset ratio}$$

VOC		Federal Offset Ratio	1.5
Permit No.	Post-Project Potential to Emit (PE2) (lb/year)	Actual Emissions (lb/year)	Emissions Change (lb/yr)
N-2321-898-0	558	0	558
$\sum(\text{PE2} - \text{AE})$ (lb/year):			558
Federal Offset Quantity (lb/year): $\sum(\text{PE2} - \text{AE}) \times 1.5$			837
Federal Offset Quantity (tons/year): $\sum(\text{PE2} - \text{AE}) \times 1.5 \div 2,000$			0.42

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

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

I. Project Location Relative to Class 1 Area

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

II. Project Emission Increase – Significance Determination

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

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

PSD Significant Emission Increase Determination: Potential to Emit (tons/year)					
	NO₂	SO₂	CO	PM	PM₁₀
Total PE from New and Modified Units	0	0	0	0	0
PSD Significant Emission Increase Thresholds	40	40	100	25	15
PSD Significant Emission Increase?	No	No	No	No	No

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

10. Quarterly Net Emissions Change (QNEC)

The QNEC is calculated solely to establish emissions that are used to complete the District’s PAS emissions profile screen. 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 applicant is proposing to install a new wine storage tank with a PE greater than 2 lb/day for VOC. BACT is triggered for VOC only since the PEs are greater than 2 lb/day.

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

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

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

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

d. SB 288/Federal Major Modification

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

2. BACT Guideline

BACT Guideline 5.4.13, applies to wine storage tanks. Woodbridge Winery is proposing to install a new wine storage tank. Therefore, BACT Guideline 5.4.13 is applicable to this new wine storage tank (BACT Guideline 5.4.13 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: Insulated tank, pressure/vacuum valve set within 10% of the maximum allowable working pressure of the tank, “gas tight” tank operation and continuous storage temperature not exceeding 75°F, achieved within 60 days of completion of fermentation.

B. Offsets

1. Offset Applicability

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)	
	VOC
SSPE2	>20,000
Offset Thresholds	20,000
Offsets Triggered?	Yes

2. Quantity of District Offsets Required

2.1 VOC

District Offset Quantities Calculation

As demonstrated above, the facility has an SSPE1 for VOC greater than the offset threshold. Therefore offset calculations will be required for this project.

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

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

Where,

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

BE = Baseline Emissions, (lb/year)

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

DOR = Distance Offset Ratio, determined pursuant to Section 4.8

BE = PE1 for:

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

otherwise,

BE = HAE

As calculated in Section VII.C.6 above, the BE from the unit in this project is 0 since it's a new emissions unit.

Also, there are no increases in cargo carrier emissions. Therefore offsets can be determined as follows:

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

PE2 (VOC) = 558 lb/year
BE (VOC) = 0 lb/year
ICCE = 0 lb/year

Based on the ERC being proposed to satisfy offset requirements, the offset ratio is 1.5:1, the amount of VOC ERCs that need to be withdrawn is:

Offsets Required (lb/year) = ([558 – 0] + 0) x DOR
= 558 lb-VOC/yr x 1.5
= 837 lb-VOC/yr

As demonstrated in the calculation above, the amount of offsets required for VOC emissions is 837 lb/yr.

Calculating the appropriate quarterly emissions to be offset is as follows:

Quarterly offsets required (lb/qtr) = (837 lb-VOC/year) ÷ (4 quarters/year)
= 209.25 lb-VOC/qtr

As demonstrated in the calculation above, the quarterly amount of offsets required for this project, when evenly distributed to each quarter, results in fractional pounds of offsets being required each quarter. Since offsets are required to be withdrawn as whole pounds, the quarterly amounts of offsets need to be adjusted to ensure the quarterly values sum to the total annual amount of offsets required.

To adjust the quarterly amount of offsets required, the fractional amount of offsets required in each quarter will be summed and redistributed to each quarter based on the number of days in each quarter. The redistribution is based on the Quarter 1 having the fewest days and the Quarters 3 and 4 having the most days. The redistribution method is summarized in the following table:

Redistribution of Required Quarterly Offsets (where X is the annual amount of offsets, and $X \div 4 = Y.z$)				
Value of z	Quarter 1	Quarter 2	Quarter 3	Quarter 4
0.0	Y	Y	Y	Y
0.25	Y	Y	Y	Y+1
0.5	Y	Y	Y+1	Y+1
0.75	Y	Y+1	Y+1	Y+1

Therefore the appropriate quarterly emissions to be offset are as follows:

<u>1st Quarter</u>	<u>2nd Quarter</u>	<u>3rd Quarter</u>	<u>4th Quarter</u>	<u>Total Annual</u>
209	209	209	210	837

Federal Offset Quantities

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 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. The offset ratio for NSR related offsets considering the distance ratio of proposed emissions reduction credits is the same as the federal offset ratio.

Comparison of District vs Federal VOC Offset Quantity			
	DOQ	FOQ	FOQ = DOQ
VOC	837	837	837

Surplus at the Time Of Use Emission Reduction Credits

The applicant has stated that the facility plans to use ERC certificate C-1509-1 to offset the increases in VOC emissions associated with this project. Pursuant to the ERC surplus analysis in Appendix G, 100% of the credits from this ERC certificate are surplus of current requirements. As shown below, the District has verified that the credits from the ERC certificate provided by the applicant are sufficient to satisfy the district as well as federal offset quantities for VOC required for this project.

Required District and Federal Offset Quantities Summary

The applicant has proposed to use the following emission reduction certificate:

	<u>1st Quarter</u>	<u>2nd Quarter</u>	<u>3rd Quarter</u>	<u>4th Quarter</u>
ERC #C-1509-1	8,199	11,438	6,085	0

VOC	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter
Project Offsets	209	209	209	210
ERC C-1509-1	8,199	11,438	6,085	0
Excess	7,990	11,229	5,876	-210
Q3 excess applied to Q4*	--	--	-210	+210
Remainder	7,990	11,229	5,666	0

* Section 4.13.8 of Rule 2201 allows actual VOC emission reductions that occurred from April through November to be used to offset VOC increases during any period of the year. Therefore, the 3rd quarter excess (July – September) will be applied to the 4th quarter to satisfy the offset obligation.

Proposed Rule 2201 Offset Permit Conditions

The following permit conditions will be added to the Authority to Construct:

- Total annual VOC emissions from this wine storage tank shall not exceed 558 lb/year, calculated on a twelve (12) month rolling basis. This tank is not permitted under the facility-wide Specific Limiting Condition for wine fermentation and storage operations. VOC emissions from this tank shall not be counted against the facility's Specific Limiting Condition for total annual VOC emissions from its wine fermentation and storage operations. [District Rule 2201]
- {GC# 4447 - edited} Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 209 lb, 2nd quarter - 209 lb, 3rd quarter - 209 lb, and 4th quarter - 210 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 C-1509-1 (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 837 lb/yr emissions for the project. As indicated in previous section, the applicant is proposing to use ERC certificate #C-1509-1 to mitigate the increases of 837 lb/yr emissions associated with this project. See Appendix F 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

As demonstrated in Sections VII.C.7 and VII.C.8, this project does not trigger an SB 288 or the facility is not a New Major Source. However, the project does trigger Federal Major Modification. Therefore, public noticing for this project for Federal Major Modification purposes is required.

b. PE > 100 lb/day

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

c. Offset Threshold

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?
VOC	>20,000	>20,000	20,000 lb/year	No

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

d. SSIPE > 20,000 lb/year

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

All existing permitted units that have valid PTO or ATC at the facility, for which permits were issued before this project and that result in VOC are covered by a SLC of 1,167,178 pounds of VOC per year. The proposed project will not be included in this SLC, hence SSIPE is equal to PE of 558 lbs/yr for the new tank. The SSIPEs for all pollutants were less than 20,000 lb/year; therefore public noticing for SSIPE purposes is not required.

e. Title V Significant Permit Modification

As shown in the Discussion of Rule 2520 below, this project constitutes a Title V significant modification. Therefore, public noticing for Title V significant modification is required for this project.

2. Public Notice Action

As discussed above, the proposed project triggers Federal Major Modification and a Significant TV Permit Modification therefore, public noticing is required for this project for VOC emissions. Therefore, public notice documents will be submitted to the USEPA and California Air Resources Board (CARB) and a public notice will be electronically published on the District’s website prior to the issuance of the ATC for this equipment.

D. Daily Emission Limits (DELs)

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

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

Proposed Rule 2201 (DEL) Conditions:

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

- The weighted annual average ethanol content of wine stored in this tank, calculated on a rolling 12-month basis, shall not exceed 16 percent by volume. [District Rule 2201]
- The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rules 2201 and 4694]
- If the throughput or ethanol content calculated for any rolling 12-month period exceeds the annual throughput or ethanol content limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput or ethanol content limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput and ethanol content are below the annual throughput and ethanol content limitations. [District Rule 2201]

The following typical daily throughput condition will be included on each of wine storage tank ATC per proposed throughput (see section VII calculation above).

- The maximum wine storage throughput in this tank shall not exceed 360,000 gallons per day. [District Rule 2201]

In addition, in order for the applicant to be able to demonstrate ongoing compliance with the proposed annual throughput limit for each tank, the following condition will be included on wine storage tank ATC:

- The maximum wine storage calculated on a rolling 12-month basis, shall not exceed 3,900,000 gallons of wine throughput per 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:

- The operator shall maintain records of the calculated rolling 12-month wine ethanol content and storage throughput rate (ethanol percentage by volume and gallons per rolling 12-month period, calculated monthly). [District Rule 2201]
- Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201]
- Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rules 1070 and 2201]
- All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201 and 4694]

4. Reporting

No reporting is required to demonstrate compliance with Rule 2201.

F. Ambient Air Quality Analysis (AAQA)

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

G. Compliance Certification

Section 4.15.2 of this Rule requires the owner of a new Major Source or a source undergoing a Federal Major Modification to demonstrate to the satisfaction of the District that all other Major Sources owned by such person and operating in California are in compliance or are on a schedule for compliance with all applicable emission limitations and standards. As discussed in Sections VIII-Rule 2201-C.1.a and VIII-Rule 2201-C.1.b, this project does constitute a Federal Major Modification, therefore this requirement is applicable. Woodbridge Winery's statewide compliance certification is included in Appendix E.

H. Alternate Siting Analysis

The current project occurs at an existing facility. The applicant proposes to install a wine storage tank.

Since the project will provide new tank to be used at the same location, the existing site will result in the least possible impact from the project. Alternative sites would involve the relocation and/or construction of various support structures on a much greater scale, and would therefore result in a much greater impact.

Rule 2410 Prevention of Significant Deterioration

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

Rule 2520 Federally Mandated Operating Permits

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

As discussed above, this permitting action qualifies as a significant permit modification and the facility has applied for a Certificate of Conformity (COC). The District will forward to EPA, for a 45-day review period, this application review which includes the proposed modified Title V permit [i.e. proposed ATC(s)] and the compliance certification form which demonstrates compliance with the minor permit modification requirements in Section 11.4. Therefore, the facility must apply to modify their Title V permit with an administrative amendment, prior to operating with the proposed modifications. Continued compliance with this rule is expected. The facility may construct/operate under the ATC upon submittal of the Title V administrative amendment application.

Rule 4001 New Source Performance Standards (NSPS)

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

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

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

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. Compliance with the requirements of this rule is assured by the following condition, currently included as condition 22 on Woodbridge Winery's facility wide permit N-2321-0-3:

- No air contaminants shall be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is as dark or darker than Ringelmann #1 or equivalent to 20% opacity and greater, unless specifically exempted by District Rule 4101 (2/17/05). If the equipment or operation is subject to a more stringent visible emission standard as prescribed in a permit condition, the more stringent visible emission limit shall supersede this condition. [District Rule 4101]

Rule 4102 Nuisance

Section 4.0 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. Compliance with the requirements of this rule is ensured by the following condition, currently included as condition 41 on Woodbridge Winery's facility wide permit N-2321-0-3:

- 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.

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

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 solely for the fermentation and storage of wine.

Therefore, the requirements of this rule are not applicable to any of the winery tanks within this project.

Rule 4694 Wine Fermentation and Storage Tanks

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

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

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

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

The following conditions will be placed on the permits for stainless steel tanks $\geq 5,000$ gallons in capacity and used for storage to assure compliance with the requirements of Section 5.2.1:

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

Section 5.2.2 requires that the temperature of the stored wine be maintained at or below 75° F. The following condition will be placed on the permits for stainless steel tanks $\geq 5,000$ gallons in capacity and used for storage (permit units N-2321-898-0) to ensure compliance with the requirements of Section 5.2.2:

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

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

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

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

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

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

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

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

Rule 4695 Brandy Aging and Wine Aging Operations

The purpose of this rule is to reduce emissions of volatile organic compounds (VOC) and apply to brandy aging and wine aging operations.

Section 4.2 states that this rule shall not apply to wine storage tanks subject to Rule 4694 (Wine Fermentation and Storage Tanks) Section 5.2. As stated above the proposed tanks are subject to Rule 4694, Section 5.2., therefore these tanks are exempt from the requirements of this rule.

California Health & Safety Code 42301.6 (School Notice)

The District has verified that this site is not located within 1,000 feet of a school. 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.

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

The District has considered the Lead Agency’s environmental document. 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)).

Indemnification Agreement/Letter of Credit Determination

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

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

IX. Recommendation

Compliance with all applicable rules and regulations is expected. Pending a successful NSR Public Noticing period, issue ATC N-2321-898-0 subject to the permit conditions on the attached draft ATC in Appendix A.

X. Billing Information

Annual Permit Fees			
Permit Number	Fee Schedule	Fee Description	Annual Fee
N-2321-898-0	3020-05-F	650,000 Gallon	\$362

Appendixes

- A: Draft ATC
- B: BACT Guideline
- C: BACT Analysis
- D: Quarterly Net Emissions Change
- E: Compliance Certification
- F: ERC Withdrawal Calculations
- G: ERC Surplus Analysis
- H: Wine Storage Emissions Factor

APPENDIX A

Draft ATC

*San Joaquin Valley
Air Pollution Control District*

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: N-2321-898-0

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

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

LOCATION: 5950 E WOODBRIDGE RD
ACAMPO, CA 95220

EQUIPMENT DESCRIPTION:

650,000 GALLON NOMINAL STAINLESS STEEL STILL WINE STORAGE TANK (TANK # TK 1707) WITH PRESSURE/VACUUM VALVE AND INSULATION

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Total annual VOC emissions from this wine storage tank shall not exceed 558 lb/year, calculated on a twelve (12) month rolling basis. This tank is not permitted under the facility-wide Specific Limiting Condition for wine fermentation and storage operations. VOC emissions from this tank shall not be counted against the facility's Specific Limiting Condition for total annual VOC emissions from its wine fermentation and storage operations. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 209 lb, 2nd quarter - 209 lb, 3rd quarter - 209 lb, and 4th quarter - 210 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-2321-898-0 : Apr 1 2021 9:12AM -- GILLR : Joint Inspection NOT Required

5. ERC Certificate Number C-1509-1 (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. The nominal tank dimensions are 53 feet in diameter and 43.667 feet in height with a proposed volume of 650,000 gallons. The permittee shall submit to the District the gauge volume of the tank within 30 days of the actual tank capacity measurement. [District Rule 2201] Federally Enforceable Through Title V Permit
7. This tank shall be used exclusively for wine storage operations only and not for fermentation. [District Rule 2201] Federally Enforceable Through Title V Permit
8. 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. 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. The temperature of the wine stored in this tank shall be maintained at or below 75 degrees Fahrenheit. The temperature of the stored wine shall be determined and recorded at least once per week. For each batch of wine, the operator shall achieve the storage temperature of 75 degrees Fahrenheit or less within 60 days after completing fermentation, and shall maintain records to show when the required storage temperature of 75 degrees Fahrenheit or less was achieved. [District Rule 4694] Federally Enforceable Through Title V Permit
11. The weighted annual average ethanol content of wine stored in this tank, calculated on a rolling 12-month basis, shall not exceed 16 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
12. The maximum wine storage throughput in this tank shall not exceed 360,000 gallons per day. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The maximum wine storage calculated on a rolling 12-month basis, shall not exceed 3,900,000 gallons of wine throughput per year. [District Rule 2201] Federally Enforceable Through Title V Permit
14. The operator shall record, on a weekly basis, the total gallons of wine contained in the tank and the maximum temperature of the stored wine. [District Rule 4694] Federally Enforceable Through Title V Permit
15. Daily throughput records, including records of filling and emptying operations, the dates of such operations, a unique identifier for each batch, the volume percent ethanol in the batch, and the volume of wine transferred, shall be maintained. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
16. The operator shall maintain records of the calculated rolling 12-month wine ethanol content and storage throughput rate (ethanol percentage by volume and gallons per rolling 12-month period, calculated monthly). [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
17. If the throughput or ethanol content calculated for any rolling 12-month period exceeds the annual throughput or ethanol content limitations of this permit, in a crush season in which the start of the crush season (defined as the day on which the facility's seasonal crushing/fermentation operations commence) occurs less than 365 days after the start of the previous crush season, then no violation of the throughput or ethanol content limits for that rolling 12-month period will be deemed to have occurred so long as the calendar year throughput and ethanol content are below the annual throughput and ethanol content limitations. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Records shall be maintained that demonstrate the date of each year's start of crush season. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
19. All records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rules 1070, 2201 and 4694] Federally Enforceable Through Title V Permit

DRAFT

APPENDIX B

BACT Guideline

San Joaquin Valley
Unified Air Pollution Control District

Best Available Control Technology (BACT) Guideline 5.4.13*

Last Update: 9/7/2018

Wine Storage Tank - Non-Wood Material**

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
VOC	Insulation or Equivalent***, Pressure Vacuum Relief Valve (PVRV) set within 10% of the maximum allowable working pressure of the tank; "gas-tight" tank operation; and continuous storage temperature not exceeding 75 degrees F, achieved within 60 days of completion of fermentation	<ol style="list-style-type: none"> 1. Capture of VOCs and thermal or catalytic oxidation (98% control) 2. Capture of VOCs and carbon adsorption (95% control) 3. Capture of VOCs and absorption (90% control) 4. Capture of VOCs and condensation (70% control) 	

**This guideline is applicable to a wine storage tank that is not constructed out of wooden materials.
 ***Tanks made of heat-conducting materials such as stainless steel may be insulated or stored indoors (in a completely enclosed building, except for vents, doors and other essential openings) to limit exposure of diurnal temperature variations. Tanks made entirely of non-conducting materials such as concrete (except for fittings) are considered self-insulating.

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

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

APPENDIX C

BACT Analysis

Top-Down BACT Analysis for VOC Emissions from Wine Storage Operations

Step 1 - Identify All Possible Control Technologies

The SJVAPCD BACT Clearinghouse guideline 5.4.13 identifies the following control equipment options for VOC emissions from wine storage tanks.

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

SJVAPCD BACT Clearinghouse guidelines 5.4.13 does not identify any alternate basic equipment control alternatives.

Step 2 - Eliminate Technologically Infeasible Options

None of the above listed technologies are technologically infeasible.

Step 3 - Rank Remaining Control Technologies by Control Effectiveness

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

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

Step 4 - Cost Effectiveness Analysis

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

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

Uncontrolled VOC Emissions from the New Storage Tank:

Woodbridge Winery is proposing to install a new wine storage tank within this project. Therefore, for the purposes of this cost effectiveness analysis, uncontrolled storage VOC emissions will be set equal to the total VOC emissions allowed from the new tank.

Uncontrolled Storage PE = 558 lb-VOC/year
= 0.279 tons/yr

Total Annual Cost

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

The Total Annual Cost is the cumulative total of following:

- Capital cost of control device
- Annual operating cost of control device
- Cost of ducting/piping needed to contact tank to the control device
- Clean in Place (CIP) system.

As a first step, if just using the partial cost of the clean-in-place (CIP) system which is the least cost is sufficient to show that the control option is not cost effective, additional cost which are subsequently much higher may not be needed to determine the cost effectiveness of the technologically feasible control options for this project.

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

A ducting system on a winery tank farm must have a Clean in Place (CIP) system to maintain sanitation and quality of the product. Optimal wine storage needs vary controlled environment, otherwise the entire product stored is prone to spoilage. Making the CIP essential for successful installation and use of an add on control device. The cost of operation of the CIP system has not been estimated. Operation of a CIP system, using typical cleaning agents, will raise disposal and wastewater treatment costs.

Capital Cost of Clean-In-Place (CIP) System	
Cost Description	Cost (\$)
Cost of CIP system: \$20,000 ⁽¹⁾	\$20,000
The following cost data is taken from EPA Control Cost Manual, Sixth Edition (EPA/452/B-02-001).	
Direct Costs (DC)	
Base Equipment Costs (CIP System) See Above	\$20,000
Instrumentation - 10% of Base Equipment	\$2,000
Sales Tax - 4.3125% of Base Equipment	\$863
Freight - 5% of Base Equipment	\$1,000
Purchased Equipment Cost (PEC)	\$23,863
Foundations & supports - 8% of PEC	\$1,909
Handling & erection - 14% of PEC	\$3,341
Electrical - 4% of PEC	\$955
Piping – accounted for in ductwork cost	-
Painting - 1% of PEC	\$239
Insulation - 1% of PEC	\$239
Direct Installation Costs (DIC)	\$6,677
Total Direct Costs (DC) = (PEC + DIC)	\$30,540

Indirect Costs (IC)	
Engineering - 10% of PEC	\$2,386
Construction and field expenses - 5% of PEC	\$1,527
Contractor fees - 10% of PEC	\$2,386
Start-up - 2% of PEC	\$477
Performance test - 1% of PEC	\$239
Total Indirect Costs (IC)	\$6,949
Subtotal Capital Investment (SCI) = (DC + IC)	\$37,489
Contingencies - 15% of SCI	\$5,623
Total Capital Investment (TCI) (SCI + Contingency)	\$43,112

Annualized Capital Costs of CIP System²

$$\begin{aligned} \text{Total Capital Cost} &= \text{CIP System} \\ &= 43,112 \end{aligned}$$

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

¹ An Allowance of \$200,000 for a CIP system should be included in the evaluation for a standard tank farm. A ducting system on a tank farm must have that kind of system to maintain sanitation and quality of the product. Because only one tank is being proposed in this project; the estimate was reduced to \$20,000.

² Please note additional ducting cost has not be added as a first step test.

Annualized Capital Investment = Initial Capital Investment x Amortization Factor

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

Therefore,

$$\begin{aligned} \text{Annualized Capital Investment for the CIP system} &= \$43,112 \times 0.163 \\ &= \mathbf{\$7,027/\text{year}} \end{aligned}$$

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

Total Annual Cost

As calculated above, the annualized capital cost for the CIP system alone is \$7,027.

Emissions Reduction:

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

$$\begin{aligned} \text{Controlled VOC emissions} &= 0.279 \text{ lb-VOC/year} \times 1 \text{ tons-VOC}/2,000 \text{ lb-VOC} \times 0.98 \\ &= 0.27 \text{ ton-VOC/year} \end{aligned}$$

Cost Effectiveness:

Cost of VOC reduction is calculated as follow:

$$\begin{aligned} \text{Cost of VOC reduction} &= \$7,027/\text{year} \div 0.27 \text{ ton-VOC/year} \\ &= \$26,026/\text{ton-VOC} \end{aligned}$$

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

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

Total Annual Cost

As calculated above, the annualized capital cost for the collection system ductwork equipment alone is \$7,027.

Emissions Reduction:

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

$$\text{Controlled VOC emissions} = 0.279 \text{ tons/yr} \times 0.95$$

$$= 0.265 \text{ ton-VOC/year}$$

Cost Effectiveness:

Cost of VOC reduction is calculated as follow:

$$\begin{aligned} \text{Cost of VOC reduction} &= \$7,027/\text{year} \div 0.265 \text{ ton-VOC/year} \\ &= \$26,517/\text{ton-VOC} \end{aligned}$$

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

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

Total Annual Cost

As calculated above, the annualized capital cost for the CIP system alone is \$7,027.

Emissions Reduction:

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

$$\begin{aligned} \text{Controlled VOC emissions} &= 0.279 \text{ tons/yr} \times 0.90 \\ &= 0.251 \text{ ton-VOC/year} \end{aligned}$$

Cost Effectiveness:

Cost of VOC reduction is calculated as follow:

$$\begin{aligned} \text{Cost of VOC reduction} &= \$7,027/\text{year} \div 0.251 \text{ ton-VOC/year} \\ &= \$27,996/\text{ton-VOC} \end{aligned}$$

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

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

Total Annual Cost

As calculated above, the annualized capital cost for the CIP system alone is \$7,027.

Emissions Reduction:

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

Controlled VOC emissions = 0.279 tons/yr x 0.70
= 0.195 ton-VOC/year

Cost Effectiveness:

Cost of VOC reduction is calculated as follow:

Cost of VOC reduction = \$7,027/year ÷ 0.195 ton-VOC/year
= \$36,036/ton-VOC

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

Option 5 - Insulation or Equivalent, Pressure Vacuum Relief Valve (PVRV) set within 10% of the maximum allowable working pressure of the tank; "gas-tight" tank operation; and continuous storage temperature not exceeding 75 degrees F, achieved within 60 days of completion of Fermentation (temperature requirement for wine only)

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

Step 5 – Select BACT

All identified feasible options with control efficiencies higher than the option proposed by the facility have been shown to not be cost effective. The facility has proposed Option 5, which is:

Insulation or Equivalent, Pressure Vacuum Relief Valve (PVRV) set within 10% of the maximum allowable working pressure of the tank; "gas-tight" tank operation. A continuous storage temperature not exceeding 75 degrees F, achieved within 60 days of completion of fermentation.

APPENDIX D

Quarterly Net Emissions Change (QNEC)

Quarterly Net Emissions Change (QNEC)

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

QNEC = PE2 - PE1, where:

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

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

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

Using the values in Sections VII.C.2 and VII.C.1 in the evaluation above, quarterly PE2 and quarterly PE1 can be calculated as follows:

$$\begin{aligned} \text{PE2}_{\text{quarterly}} &= \text{PE2}_{\text{annual}} \div 4 \text{ quarters/year} \\ &= 558 \text{ lb/year} \div 4 \text{ qtr/year} \\ &= 149.5 \text{ lb PM}_{10}\text{/qtr} \end{aligned}$$

$$\begin{aligned} \text{PE1}_{\text{quarterly}} &= \text{PE1}_{\text{annual}} \div 4 \text{ quarters/year} \\ &= 0 \text{ lb PM}_{10}\text{/qtr} \end{aligned}$$

Quarterly NEC [QNEC]				
Pollutant	Q1 (lb)	Q2 (lb)	Q3 (lb)	Q4 (lb)
VOC	139	139	140	140

APPENDIX E

Compliance Certification



**Constellation
Brands**

March 15, 2021

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

Re: Compliance Statement for N-2321 Woodbridge Winery (Project #1204622)

Dear Mr. Pierce:

In accordance with District Rule 2201, Section 4.15.2, 'Additional Requirements for New Major Source and Federal Major Modifications', Woodbridge Winery (N-2321) is pleased to provide this compliance statement regarding its proposed installation of one (1) 650,000 gallon still white wine storage tank for Project #1204622.

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

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

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

Gonzales Winery (pending Title V)
800 South Alta Street
Gonzales, CA 93926

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

Please contact Paul Scherbak (707-225-9330) should you have any questions regarding this compliance statement.

Very truly yours,

A handwritten signature in blue ink, appearing to read "Tony Santillipo", with a long horizontal flourish extending to the right.

Tony Santillipo, General Manager
Woodbridge Winery



San Joaquin Valley Air Pollution Control District



TITLE V MODIFICATION - COMPLIANCE CERTIFICATION FORM

I. TYPE OF PERMIT ACTION (Check appropriate box)

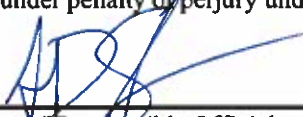
- ADMINISTRATIVE AMENDMENT
 MINOR MODIFICATION
 SIGNIFICANT MODIFICATION

COMPANY NAME: CBUS Ops. Inc. (dba Woodbridge Winery)		FACILITY ID: N-2321
1. Type of Organization: <input checked="" type="checkbox"/> Corporation <input type="checkbox"/> Sole Ownership <input type="checkbox"/> Government <input type="checkbox"/> Partnership <input type="checkbox"/> Utility		
2. Owner's Name: Tony Sanfillipo		
3. Agent to the Owner:		

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 foregoing is correct and true:



 Signature of Responsible Official

2/18/21

 Date

Tony Sanfillipo

 Name of Responsible Official (please print)

General Manager

 Title of Responsible Official (please print)

APPENDIX F

ERC Withdrawal Calculations

District Rule 2201, Section 4.13.8 allows actual VOC emission reductions that occurred from April through November to be used to offset VOC increases during any period of the year. Therefore, the 3rd quarter excess (July – September) will be applied to the 4th quarter to satisfy the offset obligation.

VOC	1st Quarter (lb)	2nd Quarter (lb)	3rd Quarter (lb)	4th Quarter (lb)
ERC C-1509-1	8,199	11,438	6,085	0
Offsets Required (Includes distance offset ratio)	209	209	209	210
Amount Remaining	7,990	11,229	5,876	-210
Q3 excess applied to Q4	--	--	210	210
Credits reissued under ERC C-YYYY-1	7,990	11,229	5,666	0

APPENDIX G

ERC Surplus Analysis

San Joaquin Valley Air Pollution Control District

Surplus ERC Analysis

Facility Name: Element Markets Emissions, LLC	Date: March 30, 2021
Mailing Address: 3200 SW Fwy, Ste 1310 Houston, TX 77027	Engineer: Christian Bisher
Contact Person: Emmett Walsh	Lead Engineer: Derek Fukuda
Telephone: (281) 207-7203	
ERC Certificates #: C-1509-1	
Project #: C-1210203	

I. Proposal

Element Markets Emissions, LLC has requested the District perform an analysis of the current surplus value of the following Emission Reduction Credit (ERC) certificate:

Proposed ERC Certificates	
Certificate #	Criteria Pollutant
C-1509-1	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 is summarized in the following table:

Criteria Pollutant: VOC

ERC Certificate C-1509-1				
Pollutant	1 st Qtr. (lb/qtr)	2 nd Qtr. (lb/qtr)	3 rd Qtr. (lb/qtr)	4 th Qtr. (lb/qtr)
Current Value	8,199	11,438	6,085	0
Surplus Value	8,199	11,438	6,085	0

II. Individual ERC Certificate Analysis

ERC Certificate C-1509-1

A. ERC Background

Criteria Pollutant: VOC

ERC Certificate C-1509-1 is a certificate that was split out from parent ERC Certificate C-1051-1. Original ERC Certificate C-1051-1 was issued to Martin Anderson on April 19, 2010 under project C-1074595. The ERCs were generated from the shutdown of a polystyrene foam box manufacturing facility, facility ID C-2929, which included an expandable polystyrene (EPS) molding operation (permit C-2929-1) and an EPS recycling operation (permit C-2929-2), which were both served by a 10.6 MMBtu/hr boiler/oxidizer steam system (B.O.S.S.). The following table summarizes the values of the original parent certificate and the current value of the subject certificate proposed to be utilized as a part of the current District analysis:

ERC Certificate C-1509-1				
Pollutant	1 st Qtr. (lb/qtr)	2 nd Qtr. (lb/qtr)	3 rd Qtr. (lb/qtr)	4 th Qtr. (lb/qtr)
Original Value of Parent Certificate C-1051-1	8,699	12,348	6,585	90
Current Value of ERC Certificate C-1509-1	8,199	11,438	6,085	0

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 VOCs 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 4301 Fuel Burning Equipment (12/17/92)

Rule 4682 Polystyrene, Polyethylene and Polypropylene Products Manufacturing (9/20/07)

The application review for the original ERC banking project demonstrated that the EPS molding and EPS recycling operations had VOC limits and requirements that complied with the rules listed above. Therefore, the original VOC emission reductions were surplus of all applicable District Rule requirements.

2. Federal Rules and Regulations

There were no applicable federal rules or regulations identified that applied at the time of this original ERC banking action; therefore, no further discussion is required.

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:

Rule 2301 Emission Reduction Credit Banking (8/15/19)

District Rule 2301 has been amended since the original ERC certificate was issued. The requirements of this rule only apply at the time of the original banking action; therefore, no further evaluation of this rule will be performed in this analysis.

Rule 4306 Boilers, Steam Generators, and Process Heaters – Phase 3 (12/17/20)
Rule 4320 Advanced Emission Reduction Options for Boilers, Steam Generators,
and Process Heaters Greater than 5.0 MMBtu/hr (12/17/20)

The requirements of amended Rules 4306 and 4320 would have been applicable to the EPS molding and EPS recycling operations that were shut down in the original ERC banking project. However, these rules do not contain any operational requirements or emission limits for VOC emissions. Therefore, with respect to these rules, the VOC emission reductions are still surplus of the requirements of these rules.

Rule 4682 Polystyrene, Polyethylene and Polypropylene Products Manufacturing
(12/15/11)

The amended rule requires EPS manufacturing operations to comply with one of seven emission reduction methods (5.2.1 – 5.2.7). The original facility had total product emissions of 1.34 pounds VOC per 100 pounds of total material processed, which is less than the rule limit of 2.4 lbs VOC per 100 pounds of total material processed. Therefore, the original VOC emission reductions continue to be surplus of District Rule requirements.

Any adjustments to the surplus value of emission reductions from these units due to the requirements of this rule will be calculated in Section D of this analysis.

2. Federal Rules and Regulations:

40 CFR Part 60 Subpart DDD – Standards of Performance for Polymer Manufacturing Industry

This subpart applies to the production of basic polymers: polypropylene, polyethylene, polystyrene, and poly(ethylene terephthalate) (PET). Per 60.562-1(b)(1)(iii), each owner or operator of a polystyrene process line using a continuous process shall comply with 60.562-1(a)(1)(i) (A), (B), or (C). The polystyrene operation shutdown in the original banking project was equipped with thermal oxidizer providing 99.8% control of VOC emissions; therefore, this operation would have been in compliance with the current requirements in 60.562-1(a)(1)(i)(A) and continues to be surplus of this subpart requirements.

D. Surplus at Time of Use Adjustments to ERC Quantities

As demonstrated in the section above, rules and regulations applicable to permit units in the original banking project have been adopted or amended since the date the original banking project was finalized. The emissions limits from these new/modified rules and regulations will be compared to the pre and post-project emission limits of each permit unit included in the original banking project to determine any discounting of the original surplus value of emission reductions due to the new/modified rule or regulation.

The amount of ERCs issued from each permit unit in the original banking project, the percentage of that amount which was discounted due to a new/modified rule or regulation,

and the current surplus value of the amount of ERCs from each permit unit is calculated in the table below:

Surplus Value Calculations for Permit Unit C-1509-1 EPS Molding and Recycling Operation		
(A) Emission Reductions Contributing to ERC	27,722	lb/year
Pre-Project (EF1)	1.34	lb-VOC/100 lb product processed
Post-Project (EF2)	0	lb-VOC/100 lb product processed
Most Stringent Applicable Rule (EF _{Rule}): District Rule 4682	2.4	lb-VOC/100 lb product processed
(B) Percent Discount*	0.0%	--
Surplus Reductions Contributing to ERC (A) x [1 - (B)]	27,722	lb/year

*If $EF_{Rule} \leq EF2$, Percent Discount = 100%, or
 If $EF_{Rule} > EF1$, Percent Discount = 0%, otherwise,
 $(EF1 - EF_{Rule}) \times 100 \div (EF1 - EF2)$

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 C-1509-1 – Criteria Pollutant VOC					
		1 st Qtr. (lb/qtr)	2 nd Qtr. (lb/qtr)	3 rd Qtr. (lb/qtr)	4 th Qtr. (lb/qtr)
(A)	Current ERC Quantity	8,199	11,438	6,085	0
(B)	Percent Discount	0.0%	0.0%	0.0%	0.0%
(C) = (A) x [1 - (B)]	Surplus Value	8,199	11,438	6,085	0

APPENDIX H

Wine Storage Emissions Factor

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 °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
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