



OCT 01 2014

Mr. Jim Crandell
CBUS Ops Inc. dba Woodbridge Winery
P. O. Box 1260
Woodbridge, CA 95258

**Re: Proposed Authority to Construct/Certificate of Conformity (Minor Mod)
District Facility # N-2321
Project # N-1142987**

Dear Mr. Crandell:

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 remove requirements associated with the flare unit and to include an existing anaerobic digester in the equipment description of permit N-2321-651.

After addressing all comments made during the 45-day EPA comment period, the District intends to issue the Authority to Construct with a Certificate of Conformity. 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,



Arnaud Marjollet
Director of Permit Services

Enclosures

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

Seyed Sadredin
Executive Director/Air Pollution Control Officer

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

Facility Name:	CBUS Ops Inc (dba Woodbridge Winery)	Date:	September 26, 2014
Mailing Address:	P O Box 1260 Woodbridge, CA 95258	Engineer:	Jag Kahlon
Contact Person:	Andrea Staggs	Lead Engineer:	Nick Peirce
Telephone:	(209) 365-8026		
Fax:	(209) 365-8038		
Application #(s):	N-2321-651-3		
Project #:	N-1142987		
Deemed Complete:	August 26, 2014		

I. PROPOSAL

CBUS Ops Inc (dba Woodbridge Winery) has proposed to modify permit N-2321-651-2 as follows:

- o The company no longer wants to combust digester gas in the flare unit. They have proposed to dilute digester gas to reduce methane concentrations to below its lower explosive limit (LEL) by retrofitting the flare stack with a 5,000 cfm blower. Therefore, the company has proposed to remove flare related conditions from this permit. Note that the flare will be made inoperable by removing its igniter system.
- o Current permit N-2321-651-2 is missing an emission unit, that is, an existing enclosed anaerobic digester that produces digester gas. The company has proposed to clarify the permit via including this emission unit in equipment description.

This facility possesses a Title V permit. The proposed project constitutes a Minor Modification to the Title V permit per section 3.20 of Rule 2520. The company requests that the ATC associated with this project should be issued with a Certificate of Conformity (COC), which is EPA's 45-day review of the draft permit.

II. APPLICABLE RULES

Rule 2201	New and Modified Stationary Source Review Rule (4/21/11)
Rule 2410	Prevention of Significant Deterioration (11/26/12)
Rule 2520	Federally Mandated Operating Permits (6/21/01)
Rule 4001	New Source Performance Standards (4/14/99)

Rule 4002 National Emissions Standards for Hazardous Air Pollutants (5/20/04)
Rule 4101 Visible Emissions (02/17/05)
Rule 4102 Nuisance (12/17/92)
Rule 4801 Sulfur Compounds (12/17/92)
California Health & Safety Code 41700 (Public Nuisance)
California Health & Safety Code 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, Acampo, California. This location is not within 1,000 feet of any K-12 school. Therefore, the public notice is not required under California Health & Safety Code 42301.6.

IV. PROCESS DESCRIPTION

CBUS Ops Inc (dba Woodbridge Winery) has an existing anaerobic digester system which is served by a hydrogen sulfide removal (i.e., iron sponge) system. The polished digester gas is transferred to internal combustion engines under permits N-2321-649 or '-650. Excess digester gas that is not combusted in the engines is being combusted in the flare unit.

The company no longer wants to combust digester gas in the flare unit. They have proposed to dilute digester gas to reduce methane concentrations to below its lower explosive limit (LEL) by retrofitting the flare stack with a 5,000 cfm blower.

V. EQUIPMENT LISTING

Pre-Project Equipment Description:

11.25 MMBTU/HR SHAW LFG SPECIALTIES MODEL EF52514 DIGESTER GAS-FIRED ENCLOSED GROUND FLARE WITH FLOW-SENSING AUTOMATIC PILOT AND DRY ABSORPTION H₂S REMOVAL SYSTEM SHARED WITH PERMIT UNITS N-2321-649 AND '-650

Post-Project Equipment Description:

ANAEROBIC DIGESTER SYSTEM SERVED BY H₂S REMOVAL SYSTEM SHARED WITH PERMIT UNITS N-2321-649 AND '-650

VI. EMISSION CONTROL TECHNOLOGY EVALUATION

No new emission control equipment is being proposed as part of this project; therefore, no further discussion is necessary.

VII. GENERAL CALCULATIONS

A. Assumptions

- Higher heating value of digester gas is 769 Btu/scf (per project N-1142663).
- Other assumptions will be stated as they are made during the evaluation.

B. Emission Factors (EF)

1. Pre-Project Emission Factors (EF1)

N-2321-651-2:

Pollutant	EF1 (lb/MMBtu)	Source
NO _x	0.06	PTO N-2321-651-2
SO _x	0.0085	
PM ₁₀	0.008	
CO	0.2	
VOC	0.0027	
CO _{2e}	230.6	

2. Post-Project Emission Factors (EF2)

N-2321-651-3:

Please refer to the calculations in section VII.C.2 of this document.

C. Calculations

1. Pre-Project Potential to Emit (PE1)

N-2321-651-2

PE1 (lb/hr) = EF1 lb/MMBtu × 11.25 MMBtu/hr

PE1 (lb/day) = PE1 lb/hr × 24 hr/day

The amount of digester gas to be flared is limited to 18.42 MMscf/year. Thus,

PE1 (lb/yr) = EF1 lb/MMBtu × 18.42 MMscf/yr × 769 Btu/scf

Pollutant	EF1 (lb/MMBtu)	PE1 (lb/hr)	PE1 (lb/day)	PE1 (lb/yr)
NO _x	0.06	0.675	16.2	850
SO _x	0.0085	0.096	2.3	120
PM ₁₀	0.008	0.090	2.2	113
CO	0.2	2.250	54.0	2,833
VOC	0.0027	0.030	0.7	38
CO _{2e}	230.6	--	--	1,633 tons/yr

2. Post Project Potential to Emit (PE2)

N-2321-651-3

Based on a gas analysis provided by the applicant under project N-1142663, the digester gas generated by the anaerobic digester is comprised of the following compounds:

<u>Compound:</u>	<u>Mol %:</u>
O ₂ :	0.2
N ₂ :	0.87
CO ₂ :	22.8
CH ₄ :	76.12
VOC (C2-C6+):	0.0005
H ₂ S:	25 ppmv (Iron sponge - H ₂ S control filter outlet limited by digester gas engine permits N-2321-649 and '650). Note that weekly Draeger tube testing shows 3 ppmv after the H ₂ S removal system.

Maximum digester gas flow rate (prior to dilution): 18,540 ft³/hr (Source: Applicant)

Higher heat value of the digester gas: 769 Btu/ft³ (Source: Gas analysis)

$$PE_{O_2} = \frac{\left(18,540 \frac{ft^3 - gas}{hr}\right) \left(32 \frac{lb - O_2}{mol}\right) \left(0.002 \frac{lb - O_2}{mol - gas}\right)}{\left(379.5 \frac{ft^3 - gas}{mol - gas}\right)} = 3.1 \frac{lb - O_2}{hr}$$

$$PE_{N_2} = \frac{\left(18,540 \frac{ft^3 - gas}{hr}\right) \left(28 \frac{lb - N_2}{mol}\right) \left(0.0087 \frac{lb - N_2}{mol - gas}\right)}{\left(379.5 \frac{ft^3 - gas}{mol - gas}\right)} = 11.9 \frac{lb - N_2}{hr}$$

$$PE_{CO_2} = \frac{\left(18,540 \frac{ft^3 - gas}{hr}\right) \left(44 \frac{lb - CO_2}{mol}\right) \left(0.228 \frac{lb - CO_2}{mol - gas}\right)}{\left(379.5 \frac{ft^3 - gas}{mol - gas}\right)} = 490.1 \frac{lb - CO_2}{hr}$$

$$PE_{CH_4} = \frac{\left(18,540 \frac{ft^3 - gas}{hr}\right) \left(16 \frac{lb - CH_4}{mol}\right) \left(0.7612 \frac{lb - CH_4}{mol - gas}\right)}{\left(379.5 \frac{ft^3 - gas}{mol - gas}\right)} = 595 \frac{lb - CH_4}{hr}$$

$$PE_{H_2S} = \frac{\left(18,540 \frac{ft^3 - gas}{hr}\right) \left(\frac{25 ft^3 - H_2S}{10^6 ft^3 - gas}\right) \left(34 \frac{lb - H_2S}{mol}\right)}{\left(379.5 \frac{ft^3 - H_2S}{mol}\right)} = 0.042 \frac{lb - H_2S}{hr}$$

$$PE_{VOC} = \frac{\left(18,540 \frac{ft^3 - gas}{hr}\right) \left(22.557 \frac{lb - VOC}{mol}\right) \left(5 \times 10^{-6} \frac{lb - VOC}{mol - gas}\right)}{\left(379.5 \frac{ft^3 - gas}{mol - gas}\right)} = 0.006 \frac{lb - VOC}{hr}$$

PE2 (lb/day) = PE2 (lb/hr) × 24 (hr/day)
PE2 (lb/yr) = PE2 (lb/day) × 365 (days/yr)

Total Emissions from the Anaerobic Digester			
Compound	PE2 (lb/hr)	PE2 (lb/day)	PE2 (lb/yr)
O ₂	3.1	74.4	27,156
N ₂	11.9	285.6	104,244
CO ₂	490.1	11,762.4	4,293,276
CH ₄	595.0	14,280	5,212,200
H ₂ S	0.042	1.0	365
VOC*	0.083	2.0	183
CO ₂ e	--	--	56,875 tons/yr**

*The applicant has proposed to set VOC limits at 2.0 lb/day and 183 lb/yr.

** $(CO_2 + 21 \times CH_4)/2,000 = (4,293,276 \text{ lb/yr} + 21 \times 5,212,200 \text{ lb/yr})/2,000 \text{ lb/ton} = 56,875 \text{ tons-CO}_2\text{/yr}$

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

Pursuant to Section 4.9 of District Rule 2201, the Pre-Project Stationary Source Potential to Emit (SSPE1) is the Potential to Emit (PE) from all units with valid ATCs or PTOs at the Stationary Source and the quantity of Emission Reduction Credits (ERCs) which have been banked since September 19, 1991 for Actual Emissions Reductions that have occurred at the source, and which have not been used on-site. Except for permit N-2321-651, the potential emissions for each unit are taken from the previous permitting actions.

SSPE1 (lb/yr)					
Permit #	NO _x	SO _x	PM ₁₀	CO	VOC
N-2321-2-7	0	0	0	0	15,844
N-2321-6-7	3	0	5	42	
N-2321-7-6	0	0	0	0	
N-2321-8-6	0	0	0	0	
N-2321-10-4	0	0	0	0	

Continue...

Permit #	NO _x	SO _x	PM ₁₀	CO	VOC
N-2321-9-2	0	0	0	0	0
N-2321-11-2	412	0	29	89	33
N-2321-12-2	357	0	25	77	29
N-2321-13-2	60	0	4	13	5
N-2321-97-3 to '648-3, '652-1 to '673-1, '677-1 to '796-0 and ATCs N-2321-797-0 to '807-0	0	0	0	0	1,167,178
N-2321-649-3	353	83	372	1,414	589
N-2321-650-1	353	83	372	1,414	589
N-2321-651-2	850	120	113	2,833	38
ERC	0	0	0	0	0
SSPE1	2,385	286	920	5,882	1,184,305

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

Pursuant to Section 4.10 of District Rule 2201, the Post Project Stationary Source Potential to Emit (SSPE2) is the Potential to Emit (PE) from all units with valid ATCs or PTOs, except for emissions units proposed to be shut down as part of the Stationary Project, at the Stationary Source and the quantity of Emission Reduction Credits (ERCs) which have been banked since September 19, 1991 for Actual Emissions Reductions that have occurred at the source, and which have not been used on-site.

SSPE2 (lb/yr)					
Permit #	NO _x	SO _x	PM ₁₀	CO	VOC
N-2321-2-7	0	0	0	0	15,844
N-2321-6-7	3	0	5	42	
N-2321-7-6	0	0	0	0	
N-2321-8-6	0	0	0	0	
N-2321-10-4	0	0	0	0	
N-2321-9-2	0	0	0	0	0
N-2321-11-2	412	0	29	89	33
N-2321-12-2	357	0	25	77	29
N-2321-13-2	60	0	4	13	5
N-2321-97-3 to '648-3, '652-1 to '673-1, '677-1 to '796-0 and ATCs N-2321-797-0 to '807-0	0	0	0	0	1,167,178
N-2321-649-3	353	83	372	1,414	589

Continue...

Permit #	NO _x	SO _x	PM ₁₀	CO	VOC
N-2321-650-1	353	83	372	1,414	589
N-2321-651-3	0	0	0	0	183
ERC	0	0	0	0	0
SSPE2	1,535	166	807	3,049	1,184,450

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)					
Category	NO _x	SO _x	PM ₁₀	CO	VOC
SSPE1	2,385	286	920	5,882	1,184,305
SSPE2	1,535	166	807	3,049	1,184,450
Major Source Thresholds	20,000	140,000	140,000	200,000	20,000
Major Source?	No	No	No	No	Yes

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)(i). Therefore, the following PSD Major Source thresholds are applicable.

PSD Major Source Determination (tons/year)						
Category	NO ₂	VOC	SO ₂	CO	PM	PM ₁₀
Estimated Facility PE before Project Increase	1.2	592.2	0.1	2.9	0.5	0.5
PSD Major Source Thresholds	250	250	250	250	250	250
PSD Major Source?	No	Yes	No	No	No	No

From the above table, the facility is an existing Major Source under PSD.

6. Baseline Emissions (BE)

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

Pursuant to District Rule 2201, BE is equal to pre-project Potential to Emit (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.

a. BE NO_x

Per section VII.C.5 of this document, this facility is not a Major Source for NO_x emissions. Thus, BE for NO_x is set equal to PE1.

$$BE = PE1 = 850 \text{ lb-NO}_x/\text{yr}$$

b. BE SO_x

Per section VII.C.5 of this document, this facility is not a Major Source for SO_x emissions. Thus, BE for SO_x is set equal to PE1.

$$BE = PE1 = 120 \text{ lb-SO}_x/\text{yr}$$

c. BE PM₁₀

Per section VII.C.5 of this document, this facility is not a Major Source for PM₁₀ emissions. Thus, BE for PM₁₀ is set equal to PE1.

$$BE = PE1 = 113 \text{ lb-PM}_{10}/\text{yr}$$

d. BE CO

Per section VII.C.5 of this document, this facility is not a Major Source for CO emissions. Thus, BE for CO is set equal to PE1.

$$BE = PE1 = 2,833 \text{ lb-CO}/\text{yr}$$

e. BE VOC

Per section VII.C.5 of this document, this facility is a Major Source for VOC emissions. Thus, BE for VOC is set equal to HAE.

$$BE = HAE = 22 \text{ lb-VOC/yr}^1$$

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.D.3 of this document, this facility is a Major Source for VOC emissions. Thus, analysis is required to determine if this project triggers an SB-288 Major Modification.

Per District's draft policy "Implementation of Rule 2201 (as amended on 12/18/08 and effective on 6/10/10) for SB288 and Federal Major Modifications", a permitting action is an SB-288 Major Modification if it will result in an increase in emission in excess of the thresholds specified in section 3.36 of Rule 2201. The draft policy further states that if the increase in emissions are less than to or equal to 0.5 lb/day then they are to be rounded to zero (consistent with District Policy APR-1130).

VOC emissions increase from the proposed changes is 0.4 lb/day² on average annual basis. This increase is below 0.5 lb/day and will be rounded to zero per District Policy APR-1130. Therefore, this project is not an SB-288 Major Modification.

8. Federal Major Modification

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

Per District's draft policy "Implementation of Rule 2201 (as amended on 12/18/08 and effective on 6/10/10) for SB288 and Federal Major Modifications", a permitting action is an SB-288 Major Modification if it will result in an increase

¹Average VOC 2012 and 2013 = $\{[13.35 \text{ MMscf/yr (least of permitted or actual use)} \times 769 \text{ Btu/scf (digester gas lab analysis Oct 2013)} \times 0.0027 \text{ lb-VOC/MMBtu (least of permitted or source test value)}] + [18.42 \text{ MMscf/yr (least of permitted or actual use)} \times 769 \text{ Btu/scf (digester gas lab analysis Oct 2013)} \times 0.0011 \text{ lb-VOC/MMBtu (least of permitted or source test value, source test 10/17/2012)}]\}/2 = [28 \text{ lb-VOC/yr} + 16 \text{ lb-VOC/yr}]/2 = 22 \text{ lb-VOC/yr}$

² $(PE2 - HE)/365 = (183 - 22) \text{ lb-VOC/yr}/365 \text{ days/yr} = 0.4 \text{ lb-VOC/day}$

in emission in excess of the thresholds specified in section 3.36 of Rule 2201. The draft policy further states that if the increase in emissions are less than to or equal to 0.5 lb/day then they are to be rounded to zero (consistent with District Policy APR-1130).

VOC emissions increase from the proposed changes is 0.4 lb/day on average annual basis. This increase is below 0.5 lb/day and will be rounded to zero per District Policy APR-1130. Therefore, this project is not a Federal Major Modification.

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)

- NO₂ (as a primary pollutant)
- SO₂ (as a primary pollutant)
- CO
- PM
- PM₁₀
- Hydrogen sulfide (H₂S)
- Total reduced sulfur (including H₂S)
- Reduced sulfur compounds

Step 1:

The first step of this PSD evaluation consists of determining whether the facility is an existing PSD Major Source or not. Per section VII.D.3 of this document, this facility is an existing major source under PSD.

Step 2:

The second step of the PSD evaluation is to determine if the project results in a PSD significant increase along with the project location relative to Class 1 area.

I. Project Location Relative to Class 1 Area

This facility is an existing major source for PSD. However, it is not located within 10 km of any Class 1 area. Therefore, 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. Comparison of Potential to Emit or New or Modified Emission Units vs PSD Significant Emission Increase Thresholds

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

PSD Significant Emission Increase Determination: Potential to Emit (tons/year)					
Category	NO ₂	SO ₂	CO	PM	PM ₁₀
N-2321-651-3	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 project has a total potential to emit from all new and modified emission units below the PSD significant emission increase thresholds, this project is not subject to the requirements of Rule 2410 due to a significant emission increase and no further discussion is required.

10. Quarterly Net Emissions Change (QNEC)

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

VIII. COMPLIANCE

Rule 2201 New and Modified Stationary Source Review Rule

A. Best Available Control Technology (BACT)

1. BACT Applicability

BACT requirements shall be triggered on a pollutant-by-pollutant basis and on an emissions unit-by-emissions unit basis. Unless exempted pursuant to Section 4.2, BACT shall be required for the following actions³:

³Except 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

- a. Any new emissions unit or relocation from one Stationary Source to another of an existing emissions unit with a Potential to Emit (PE2) exceeding 2.0 pounds in any one day;
- b. Modifications to an existing emissions unit with a valid Permit to Operate resulting in an Adjusted Increase in Permitted Emissions (AIPE) exceeding 2.0 pounds in any one day;
- c. 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 in this rule.

N-2321-651-3

- a. New emissions unit/Relocation of emission unit – PE2 > 2.0 lb/day

This project neither involves any new emissions unit nor does the project involve relocation of an existing emission unit. Therefore, no further discussion is necessary.

- b. Modification of emission units – AIPE > 2.0 lb/day

AIPE is calculated using the equations mentioned in Section 4.3 and 4.4 of Rule 2201.

$$AIPE = PE2 - \left(\frac{EF2}{EF1} \right) (PE1)$$

Pollutant	PE2 (lb/day)	PE1 (lb/day)	EF2/EF1	AIPE (lb/day)
NO _x	0	16.2	0	0.0
SO _x	0	2.3	0	0.0
PM ₁₀	0	2.2	0	0.0
CO	0	54.0	0	0.0
VOC	2.0	0.7	1*	1.3
H ₂ S	1.0	0	1*	1.0

**EF2/EF1 is set equal to 1 (conservative approach)

As demonstrated in the above table, AIPE is not greater than 2.0 lb/day for any pollutant. Therefore, BACT is not triggered.

c. SB-288/Federal Major Modification

Per sections VII.C.7 and VII.C.8 above, this project is not an SB 288 and/or Federal Major Modification for VOC emissions. Thus, BACT is not triggered for VOC emissions.

B. Offsets

1. Offset Applicability

Offsets are examined on pollutant-by-pollutant basis. The following table summarizes SSPE2, offset thresholds, and whether or not offsets are triggered.

Category	NO _x	SO _x	PM ₁₀	CO	VOC
SSPE2 (lb/yr)	1,535	166	807	3,049	1,184,450
Offset Thresholds	20,000	54,750	29,200	200,000	20,000
Offsets Triggered?	No	No	No	No	Yes

2. Quantity of Offsets Required

VOC emissions increase due to this proposal is 0.4 lb/day⁴ on average annual basis. This increase is below 0.5 lb/day and will be rounded to zero per District Policy APR-1130. Therefore, offsets will not be required for VOC emissions.

C. Public Notification

1. Applicability

Public noticing is required for:

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

Per calculations in section VII of this document, this project does not exceed thresholds in any of the above listed items. Thus, public notice is not required for this project.

⁴ (PE2 – HE)/365 = (183 – 22) lb-VOC/yr/365 days/yr = 0.4 lb-VOC/day

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.

- Digester gas shall be treated by a dry absorption system for removal of hydrogen sulfide (H₂S). H₂S concentration in the treated digester gas prior to dilution shall not exceed 25 ppmvd. [District Rule 2201]
- VOC emissions in the treated digester gas prior to dilution shall not exceed any of the following limits: 2.0 lb/day and 183 lb/year. [District Rule 2201]
- No more than 444,960⁵ cubic feet per day of treated digester gas shall be processed through the dilution system. [District Rule 2201]

E. Compliance Assurance

1. Source Testing

To verify compliance with VOC emissions, the owner or operator will be required to conduct digester gas analysis by an independent certified lab within 60 days of initial startup under this permit and at least once every 120 days thereafter. Once three consecutive 120-day laboratory tests show compliance with the permitted limits, the lab testing frequency may be reduced to annually. If a subsequent annual laboratory test shows a violation of any permitted limit then 120-day laboratory testing shall resume and continue until three consecutive 120-day laboratory tests show compliance.

The applicant states that the past two year weekly H₂S monitoring data indicates that the H₂S concentration is less than or equal to 3 ppmv, which is well below the permitted level of 25 ppmv; therefore, H₂S testing should not be required. Compliance with H₂S limit will continually be assured using Draeger tubes on a weekly basis. Weekly H₂S monitoring is being accepted in-lieu of a third party testing.

2. Monitoring

Currently, the facility is required to determine H₂S content in the digester gas on a weekly basis. This monitoring will remain "as-is" for the permit being issued under this project.

⁵18,540 ft³/hr x 24 hr/day = 444,960 ft³/day (prior to dilution)

The digester gas contains minute amount of VOC (0.0005 mole %), which may not practically detected accurately with the use of portable flame ionization detector (FID) or photo ionization detector (PID). Therefore, the District will be relying on third party quarterly and annual test results to ensure compliance VOC emission limit (see the source testing section above).

3. Recordkeeping

The owner or operator will be required to keep records of the date and amount of the undiluted digester gas discharged into the line for dilution. In addition, they will be required to maintain all monitoring and source testing records. Each record is required to be kept on site for a period of at least five years from the date that records is entered in a log book.

4. Reporting

No reporting is required.

Compliance is expected with this Rule.

Rule 2410 Prevention of Significant Deterioration

As discussed in section VII.C.9 of this document, this project is not subject to the requirements of this rule.

Rule 2520 Federally Mandated Operating Permits

CBUS Ops Inc is a Major Source for VOC emissions, and is operating under Title V permit. Therefore, this facility is subject to the requirements in this rule.

The proposed project does not relax the existing H₂S monitoring requirements or digester gas recordkeeping requirements. Furthermore, the project is not an SB-288 or a Federal Major Modification. Therefore, this project is considered a "Minor Modification" under this rule. Note that source testing requirements associated with the flare unit are not included in the permit since flare will be made inoperable by removing its igniter system.

The applicant has requested to issue the ATC with COC. Therefore, the following conditions will be included in the permit:

- This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District NSR Rule]
- 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]

In accordance with Rule 2520, the application meets the procedural requirements of section 11.4 by including:

- A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs and
- The source's suggested draft permit (Appendix I of this document) and
- Certification by a responsible official that the proposed modification meets the criteria for use of minor permit modification procedures and a request that such procedures be used (Appendix IV of this document).

Section 5.3.4 of this rule requires the permittee shall file an application for administrative permit amendments prior to implementing the requested change except when allowed by the operational flexibility provisions of section 6.4 of this rule. The applicant is expected to notify the District by filing TV Form-008 upon implementing the ATCs. The District Compliance Division is expected to submit a change order to implement these ATCs into PTOs.

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 anaerobic digester units.

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

No subpart of 40 CFR Part 61 or 40 CFR Part 63 applies to anaerobic digesters.

Rule 4102 Nuisance

Section 4.0 prohibits discharge of air contaminants, which could cause injury, detriment, nuisance or annoyance to the public. The following condition will be placed on 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. The risk management review results are summarized in the following table:

Categories	N-2321-651-3	Project Totals	Facility Totals
Prioritization Score	0.06	0.06	>1
Acute Hazard Index	0.11	0.11	0.14
Chronic Hazard Index	0.00	0.00	0.00
Maximum Individual Cancer Risk	N/A ¹	N/A ¹	N/A ¹
T-BACT Required?	No		
Special Permit Conditions?	Yes		

¹The Maximum Individual Cancer Risk was not calculated since there are no risk factors associated with any of the Hazardous Air Pollutants (HAPs) under analysis.

There is no Cancer Risk associated with any of the HAPs under review; and the Chronic and Acute Hazard Indices are below 1.0. In accordance with the District's Risk Management Policy, the unit is approved with Toxic Best Available Control Technology (T-BACT). To ensure that human health risks will not exceed District allowable levels; the following permit conditions must be included for:

N-2321-651-3

- 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]

Compliance is expected with this Rule.

Rule 4801 Sulfur Compounds

Section 3.1 states that a person shall not discharge into the atmosphere sulfur compounds, which would exist as a liquid or gas at standard conditions, exceeding a concentration of two-tenths (0.2) percent by volume calculated as sulfur dioxide (SO₂) at the point of discharge on a dry basis averaged over 15 consecutive minutes.

The H₂S concentration in undiluted digester gas will be limited to 25 ppmv, which is equivalent to 47 ppmv⁶ as SO₂ assuming H₂S converts to SO₂ at the discharge point. Since the SO₂ concentration of 47 ppmv is less than 2000 ppmv rule limit, compliance is expected with the Rule.

⁶(25 ppmv H₂S)/{(34 units-H₂S/32 units-S) × (32 units-S/64 units-SO₂)} = 47 ppmv H₂S

California Environmental Quality Act (CEQA)

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

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

The District performed an Engineering Evaluation (this document) for the proposed project and determined that the proposed changes did not trigger Best Available Control Technology (BACT) requirements. Furthermore, the District concludes that potential health impacts are less than significant from the proposed changes. Therefore, this project does not require discretionary judgment or deliberation. Consequently, this permitting action constitutes a ministerial approval. Section 21080 of the Public Resources Code exempts CEQA for those projects over which a public agency exercises only ministerial approval; therefore, the District finds that this project to be exempt from the provisions of CEQA.

IX. RECOMMENDATION

Compliance with all applicable regulations is expected. Therefore, issuance of the ATCs is recommended.

X. BILLING INFORMATION

Permit #	Fee Schedule	Fee Description	Previous Fee Schedule
N-2321-651-3	3020-06	Miscellaneous	3020-02 G

APPENDICES

- Appendix I: Draft Authority to Construct Permit
- Appendix II: Risk Management Review Summary
- Appendix III: Compliance Certification Form
- Appendix IV: Permit to Operate N-2321-651-2
- Appendix V: Quarterly Net Emissions Change

Appendix I
Draft Authority to Construct Permit

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: N-2321-651-3

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

MAILING ADDRESS: P O BOX 1260
WOODBRIDGE, CA 95258-1260

LOCATION: 5950 E WOODBRIDGE ROAD
ACAMPO, CA 95220

EQUIPMENT DESCRIPTION:

MODIFICATION OF 11.25 MMBTU/HR SHAW LFG SPECIALTIES MODEL EF52514 DIGESTER GAS-FIRED ENCLOSED GROUND FLARE WITH FLOW-SENSING AUTOMATIC PILOT AND DRY ABSORPTION H2S REMOVAL SYSTEM SHARED WITH PERMIT UNITS N-2321-649 AND '650: REMOVE FLARE IGNITER THAT WOULD MAKE FLARE INOPERABLE, REMOVE REQUIREMENTS RELATED TO FLARE UNIT, AND CLARIFY TO INCLUDE AN EXISTING ANAEROBIC DIGESTER. THE POST-PROJECT EQUIPMENT DESCRIPTION WILL BE: ANAEROBIC DIGESTER SYSTEM SERVED BY H2S REMOVAL SYSTEM SHARED WITH PERMIT UNITS N-2321-649 AND '650

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. A non-resettable, totalizing mass or volumetric fuel flow meter shall be installed, utilized and maintained to measure the amount of treated digester gas processed through the dilution system. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Digester gas shall be treated by a dry absorption system for removal of hydrogen sulfide (H2S). H2S concentration in the treated digester gas prior to dilution shall not exceed 25 ppmvd. [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.

Seyed Sadredin, Executive Director, APCO

Arnaud Marjollet, Director of Permit Services

N-2321-651-3 Sep 26 2014 8:57AM - KAH-LONJ : Joint Inspection NOT Required

6. The dry absorption system for H₂S removal shall utilize a minimum of two absorbent beds to allow leaving at least one absorbent bed operational during periodical change out of absorbent. [District Rule 2201] Federally Enforceable Through Title V Permit
7. No more than 444,960 cubic feet per day of treated digester gas shall be processed through the dilution system. [District Rule 2201] Federally Enforceable Through Title V Permit
8. VOC emissions in the treated digester gas prior to dilution shall not exceed any of the following limits: 2.0 lb/day and 183 lb/year. [District Rule 2201] Federally Enforceable Through Title V Permit
9. Within 60 days of initial startup under this permit, and at least once every 120 days thereafter, VOC concentrations in the digester gas prior to dilution shall be determined by an independent, certified laboratory using EPA Method 18. Once three consecutive 120-day laboratory tests show compliance with the permitted VOC emission limit, the laboratory testing frequency may be reduced to annually. If a subsequent annual laboratory test shows a violation of the permitted VOC emission limit then 120-day laboratory testing shall resume and continue until three consecutive 120-day laboratory tests show compliance. Once compliance is shown on three consecutive 120-day laboratory tests, the laboratory testing frequency may return to annually. Should the applicant decide to use a different test method, then that methodology must be approved by the District prior to its use. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The owner or operator shall maintain records of the date, name of the sampler, VOC concentrations (ppmvd), VOC emissions, calculated (lb/day), and VOC emissions (lb/year) on a rolling 12-month basis. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Testing to demonstrate compliance with the digester gas sulfur content shall be conducted weekly using Draeger tubes. [District Rule 2201] Federally Enforceable Through Title V Permit
12. The owner or operator shall maintain records of the date, the name of the sampler, H₂S concentrations in ppmvd. [District Rules 2201] Federally Enforceable Through Title V Permit
13. The owner or operator shall maintain record of the date and the amount of treated gas processed through the dilution system. [District Rule 2201] Federally Enforceable Through Title V Permit
14. The anaerobic digester system and its associated piping shall be inspected for leaks at least annually. Any leak detected on the basis of sight, smell, or sound, shall be recorded and a corrective action shall be taken to eliminate the leak. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Records of leak inspections shall contain at least an identification of a person performing an inspection, date and time of the inspection, leak location, and corrective action taken to eliminate leaks. The records shall be maintained, kept, and made available for District inspection upon request. [District Rule 2201] Federally Enforceable Through Title V Permit
16. All records shall be maintained and retained on-site for a minimum of five years, and shall be made available for District inspection upon request. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit

DRAFT

Appendix II
Risk Management Review Summary

San Joaquin Valley Air Pollution Control District Risk Management Review

To: Jag Kahlon – Permit Services
 From: Kyle Melching – Technical Services
 Date: September 15, 2014
 Facility Name: Woodbridge Winery
 Location: 5950 E. Woodbridge Rd., Acampo
 Application #(s): N-2321-651-3
 Project #: N-1142987

A. RMR SUMMARY

RMR Summary			
Categories	Biogas Off-Gassing (Unit 651-3)	Project Totals	Facility Totals
Prioritization Score	0.06	0.06	>1
Acute Hazard Index	0.11	0.11	0.14
Chronic Hazard Index	0.00	0.00	0.00
Maximum Individual Cancer Risk (10 ⁻⁶)	N/A ¹	N/A ¹	5.13E-08
T-BACT Required?	No		
Special Permit Conditions?	Yes		

¹The Maximum Individual Cancer Risk was not calculated since there are no risk factors associated with any of the Hazardous Air Pollutants (HAPs) under analysis.

Proposed Permit Conditions

To ensure that human health risks will not exceed District allowable levels; the following permit conditions must be included for:

Unit # 651-3

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. [District Rule 4102]

B. RMR REPORT

I. Project Description

Technical Services received a request on August 29, 2014, to perform a Risk Management Review (RMR) for the modification of a biogas flare. The applicant proposes to no longer utilize the flare for the destruction of biogas emissions. Instead, the applicant proposes to reduce the methane concentration to below the explosive limit. This new process proposes to use the same flare stack to release the diluted biogas. This process will result in an increase in H₂S and ammonia emissions. For this project to pass, project (N-1040736) was re-evaluated to reduce the facility's acute hazard index. The re-evaluation of Unit -6, utilized current modelling procedures and actual placement on the facility map.

II. Analysis

Toxic emissions for H₂S for this proposed unit were calculated and provided by the processing engineer. Technical Services has determined that off-gassing of biogas may result in ammonia emissions. According to a study, *Characterization of Biogas from Anaerobically Digested Dairy Waste for Energy Use* from Cornell University, a conservative estimate for ammonia emissions from off-gassing of biogas is about 10% of H₂S emissions. In accordance with the District's *Risk Management Policy for Permitting New and Modified Sources* (APR 1905-1, March 2, 2001), risks from the project were prioritized using the procedures in the 1990 CAPCOA Facility Prioritization Guidelines and incorporated in the District's HEART's database. The prioritization score for the project was less than 1.0 (see RMR Summary Table); however, the facility's combined prioritization scores totaled to greater than one. Therefore, a refined Health Risk Assessment was required and performed for the project. AERMOD was used with source parameters outlined below and concatenated 5-year meteorological data from Stockton to determine maximum dispersion factors at the nearest residential and business receptors. The dispersion factors were input into the HARP model to calculate the Chronic and Acute Hazard Indices and the Carcinogenic Risk.

The following parameters were used for the review:

Analysis Parameters (Unit 651-3)			
Source Type	Point	Nearest Receptor (m)	305
Stack Height (m)	7.92	Closest Receptor Type	Resident
Stack Diameter (m)	1.52	Project Location	Rural
Stack Exit Velocity (m/s)	1.36	Stack Exit Temperature (K)	294
H ₂ S Emission (lb/hr)	0.04	Ammonia Emissions (lb/hr)	0.004
H ₂ S Emission (lb/yr)	365	Ammonia Emissions (lb/yr)	36.5

III. Conclusion

There is no Cancer Risk associated with any of the HAPs under review; and the Chronic and Acute Hazard Indices are below 1.0. In accordance with the District's Risk Management Policy, the unit is approved **without** Toxic Best Available Control Technology (T-BACT).

To ensure that human health risks will not exceed District allowable levels; the permit conditions listed on Page 1 of this report must be included for this permit 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.

IV. Attachments

- A. RMR request from the project engineer
- B. Additional information from the applicant/project engineer
- C. Stack Parameter Worksheet
- D. Prioritization score w/ Toxic emissions summary
- E. HARP Risk Report
- F. Facility Summary

**Appendix III
Compliance Certification Form**

San Joaquin Valley Air Pollution Control District

TITLE V COMPLIANCE CERTIFICATION FORM

I. TYPE OF PERMIT ACTION (Check appropriate box)

Modification of the Flare (N-2321-651-2)

ADMIN. MODIFICATION

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: CONSTELLATION BRANDS U.S. OPERATIONS INC.	
3. Agent to the Owner: Jim Crandell	

II. COMPLIANCE CERTIFICATION (Read each statement carefully and initial each circle for confirmation):

- Based on information and belief formed after reasonable inquiry, the source identified in this application will continue to comply with the applicable federal requirement(s) which the source is in compliance as identified in the Compliance Plan.
- Based on information and belief formed after reasonable inquiry, the source identified in this application will comply with applicable federal requirement(s) that will become effective during the permit term as identified in the Compliance Plan, on a timely basis.
- Based on information and belief formed after reasonable inquiry, the source identified in this application is not in compliance at the time of permit issuance with the applicable federal requirement(s), as identified in the Compliance Plan, and I have attached a compliance schedule.
- 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.

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

08/20/2014

Date

Jim Crandell

Name of Responsible Official (please print)

Facilities Director, Woodbridge Winery

Title of Responsible Official (please print)

Mailing Address: Central Regional Office * 1990 Gettysburg Avenue * Fresno, California 93726-0244 * (559) 230-5900 * FAX (559) 230-6061

TVFORM-005

Appendix IV
Permit to Operate N-2321-651-2

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: N-2321-651-2

EXPIRATION DATE: 08/31/2017

EQUIPMENT DESCRIPTION:

11.25 MMBTU/HR SHAW LFG SPECIALTIES MODEL EF52514 DIGESTER GAS-FIRED ENCLOSED GROUND FLARE WITH FLOW-SENSING AUTOMATIC PILOT AND DRY ABSORPTION H2S REMOVAL SYSTEM SHARED WITH PERMIT UNITS N-2321-649 AND '650

PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. All flaring shall be conducted in accordance with the facility's approved flare minimization plan (FMP). [District Rule 4311] Federally Enforceable Through Title V Permit
3. A flame shall be present at all times in the flare whenever combustible gases are vented through the flare. [District Rule 4311] Federally Enforceable Through Title V Permit
4. The flare outlet shall be equipped with an automatic ignition system, or, shall be operated with a pilot flame present at all times when combustible gases are vented through the flare, except during purge periods for automatic-ignition equipped flares. [District Rule 4311] Federally Enforceable Through Title V Permit
5. Digester gas fuel to the flare shall be treated by a dry absorption system for removal of H2S. Maximum H2S concentration in the treated digester gas shall be 25 ppmvd. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The dry absorption system for H2S removal shall utilize a minimum of two absorbent beds to allow leaving at least one absorbent bed operational during periodical change out of absorbent. [District Rule 2201] Federally Enforceable Through Title V Permit
7. The flare pilot shall be fired with natural gas only. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The flare shall be equipped with a flow-sensing automatic ignition system. The flow sensing automatic ignition system shall use natural gas for purging. [District Rule 4311] Federally Enforceable Through Title V Permit
9. The flare shall be equipped and operated with a non-resettable cumulative fuel consumption meter or other APCO approved alternative. [District Rules 2201 and 4311] Federally Enforceable Through Title V Permit
10. There shall be no visible emissions from the flare. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Emissions from the digester gas-fired unit shall not exceed any of the following limits: 0.06 lb-NOx/MMBtu, 0.0085 lb-SOx/MMBtu, 0.008 lb-PM10/MMBtu, 0.20 lb-CO/MMBtu, or 0.0027 lb-VOC/MMBtu. [District Rules 2201 and 4311] Federally Enforceable Through Title V Permit
12. Annual digester gas fired in the unit shall not exceed 18.42 MMscf per year. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Digester gas fuel consumption in standard cubic feet shall be recorded monthly. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Testing to demonstrate compliance with the digester gas fuel sulfur content shall be conducted weekly using draeger tubes. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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

15. Source testing to measure NO_x and VOC emissions from this unit while fired on digester gas shall be conducted at least once every twelve (12) months and shall be performed during the annual grape crush operational period at this facility. [District Rules 2201 and 4311] Federally Enforceable Through Title V Permit
16. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified and a source test plan must be submitted for approval at least 30 days prior to testing. [District Rules 1081 and 4311] Federally Enforceable Through Title V Permit
17. The following test methods shall be used: VOC - EPA Method 25, except when the outlet concentration must be below 50 ppm to meet the standard, in which case EPA Method 25a may be used; analysis of halogenated exempt compounds - EPA Method 18 or ARB Method 422 "Determination of Volatile organic Compounds in Emission from Stationary Sources"; NO_x (lb/MMBtu) - EPA Method 19; and NO_x and O₂ (concentrations) - EPA Method 3A, EPA Method 7E, or ARB 100. The VOC concentration in ppmv shall be converted to pounds per million Btu (lb/MMBtu) as specified in District Rule 4311. [District Rule 4311] Federally Enforceable Through Title V Permit
18. The results of each source test shall be submitted to the District within 45 days thereafter. [District Rules 1081 and 4311] Federally Enforceable Through Title V Permit
19. The operator shall notify the APCO of an unplanned flaring event within 24 hours after the start of the next business day or within 24 hours of their discovery, whichever occurs first. The notification shall include the flare source identification, the start date and time, and the end date and time. [District Rule 4311] Federally Enforceable Through Title V Permit
20. The operator shall submit an annual report to the APCO that summarizes the following: all Reportable Flaring Events, as defined in Rule 4311; the total volumetric flow of vent gas in standard cubic feet for each day; and any flare monitoring system downtime periods, including dates and times. The report shall be submitted within 30 days following the end of each twelve month period of the previous year. [District Rule 4311] Federally Enforceable Through Title V Permit
21. The permittee shall maintain the following records: the amount of vent gas burned in the flare, in scf; copies of annual source testing results; a copy of the approved flare minimization plan; and copies of annual reportable flaring events reports. [District Rules 2201 and 4311] Federally Enforceable Through Title V Permit
22. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and 4311] Federally Enforceable Through Title V Permit

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

Appendix V
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. The QNEC shall be calculated as follows:

QNEC = PE2 - PE1, where:

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

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

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

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

$$\begin{aligned} PE2_{\text{quarterly}} &= PE2_{\text{annual}} \div 4 \text{ quarters/year} \\ PE1_{\text{quarterly}} &= PE1_{\text{annual}} \div 4 \text{ quarters/year} \end{aligned}$$

Quarterly NEC [QNEC]			
	PE2 (lb/qtr)	PE1 (lb/qtr)	QNEC (lb/qtr)
NO _x	0	212.5	(212.5)
SO _x	0	30	(30)
PM ₁₀	0	28.25	(28.25)
CO	0	708.25	(708.25)
VOC	45.75	5.5	40.25