



# San Joaquin Valley

AIR POLLUTION CONTROL DISTRICT

MAY 18 2010

Gerardo C. Rios, Chief  
Permits Office  
Air Division  
U.S. EPA - Region IX  
75 Hawthorne St  
San Francisco, CA 94105

Re: **Proposed Authorities to Construct / Certificate of Conformity (Minor Mod)**  
**District Facility # C-628**  
**Project # C-1101031**

Dear Mr. Rios:

Enclosed for your review is the District's engineering evaluation of an application for Authorities to Construct for Constellation Wines U.S. (DBA Mission Bell Winery), located at 12667 Road 24 in Madera, which has been issued a Title V permit. Constellation Wines U.S. (DBA Mission Bell Winery) is requesting that a Certificate of Conformity, with the procedural requirements of 40 CFR Part 70, be issued with this project. Modify the permit conditions to comply with the District Rule 4320

Enclosed is the engineering evaluation of this application, a copy of the current Title V permit, and proposed Authorities to Construct # C-628-4-9, -5-9 & -13-5 with Certificate of Conformity. After demonstrating compliance with the Authorities to Construct, the conditions will be incorporated into the facility's Title V permit through an administrative amendment.

Please submit your written comments on this project within the 45-day comment period that begins on the date you receive this letter. If you have any questions, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900.

Thank you for your cooperation in this matter.

Sincerely,

David Warner  
Director of Permit Services

Enclosures  
cc: Don Ctibor, Permit Services

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

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

**Central Region (Main Office)**  
1990 E. Gettysburg Avenue  
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**Southern Region**  
34946 Flyover Court  
Bakersfield, CA 93308-9725  
Tel: (661) 392-5500 FAX: (661) 392-5585



# San Joaquin Valley

AIR POLLUTION CONTROL DISTRICT

MAY 18 2010

Wendy Garcia  
Constellation Wines U.S. (DBA Mission Bell Winery)  
12667 Road 24  
Madera, CA 93637

**Re: Proposed Authorities to Construct / Certificate of Conformity (Minor Mod)  
District Facility # C-628  
Project # C-1101031**

Dear Ms. Garcia:

Enclosed for your review is the District's analysis of your application for Authorities to Construct for the facility identified above. You have requested that a Certificate of Conformity with the procedural requirements of 40 CFR Part 70 be issued with this project. Modify the permit conditions to comply with the District Rule 4320

After addressing any EPA comments made during the 45-day comment period, the Authorities to Construct will be issued to the facility with a Certificate of Conformity. Prior to operating with modifications authorized by the Authorities to Construct, the facility must submit an application to modify the Title V permit as an administrative amendment, in accordance with District Rule 2520, Section 11.5.

If you have any questions, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900.

Thank you for your cooperation in this matter.

Sincerely,

David Warner  
Director of Permit Services

Enclosures  
cc: Don Ctibor, Permit Services

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Executive Director/Air Pollution Control Officer

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District Rule 4306 Boilers, Steam Generators and Process Heaters – Phase 3 (10/16/08)  
District Rule 4320 Advanced Emission Reduction Options for Boilers, Steam Generators,  
and Process Heaters Greater than 5.0 MMBtu/hr (10/16/08)  
District Rule 4351 Boilers, Steam Generators and Process Heaters – Phase 1 (8/21/03)  
District Rule 4801 Sulfur Compounds (12/17/92)  
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

This facility is located at 12667 Road 24 in Madera. Since there is not an increase in hazardous air emissions, the public notification requirement of California Health and Safety Code 42301.6 is not applicable to this project.

### IV. PROCESS DESCRIPTION

Constellation Wines U.S. (DBA Mission Bell Winery) operates natural gas-fired units used to create steam for use at the wine production facility. In order to comply with District Rule 4320 NO<sub>x</sub> requirements, the applicant is proposing that the units currently achieve 7 ppmvd-NO<sub>x</sub> @ 3% O<sub>2</sub> (0.008 lb-NO<sub>x</sub>/MMBtu).

### V. EQUIPMENT LISTING

#### ***Pre-Project Equipment Description:***

**C-628-4-7:** NEBRASKA MODEL NS-F-81 NATURAL GAS OR LPG-FIRED BOILER (WEST) WITH A 97 MMBTU/HR ALZETA MODEL CSB-1210 ULTRA-LOW NOX BURNER

**C-628-5-7:** NEBRASKA MODEL NS-F-81 NATURAL GAS OR LPG-FIRED BOILER (EAST) WITH A 97 MMBTU/HR ALZETA MODEL CSB-1210 ULTRA-LOW NOX BURNER

**C-628-13-3:** 43.4 MMBTU/HR NEBRASKA MODEL NS-C-42-ECON NATURAL GAS-FIRED BOILER, EQUIPPED WITH AN ALZETA ULTRA-LOW NOX BURNER WITH A VARIABLE FREQUENCY DRIVE FOR AIR INTAKE FAN MOTOR AND OXYGEN TRIM EQUIPMENT IN EXHAUST STACK

#### ***ATC Equipment Description:***

**C-628-4-9:** MODIFICATION OF 97 MMBTU/HR NEBRASKA MODEL NS-F-81 NATURAL GAS-FIRED BOILER WITH A ALZETA MODEL CSB-1210 LOW NOX BURNER: CURRENTLY ACHIEVE 7 PPMVD-NO<sub>x</sub> @ 3% O<sub>2</sub>

**C-628-5-9:** MODIFICATION OF 97 MMBTU/HR NEBRASKA MODEL NS-F-81 NATURAL GAS-FIRED BOILER WITH A ALZETA MODEL CSB-1210 LOW NO<sub>x</sub> BURNER: CURRENTLY ACHIEVE 7 PPMVD-NO<sub>x</sub> @ 3% O<sub>2</sub>

**C-628-13-5:** MODIFICATION OF 43.4 MMBTU/HR NEBRASKA MODEL NS-C-42-ECON NATURAL GAS-FIRED BOILER WITH A ALZETA ULTRA-LOW NO<sub>x</sub> BURNER: CURRENTLY ACHIEVE 7 PPMVD-NO<sub>x</sub> @ 3% O<sub>2</sub>

***Post Project Equipment Description:***

**C-628-4-9:** 97 MMBTU/HR NEBRASKA MODEL NS-F-81 NATURAL GAS-FIRED BOILER WITH A ALZETA MODEL CSB-1210 LOW NO<sub>x</sub> BURNER

**C-628-5-9:** 97 MMBTU/HR NEBRASKA MODEL NS-F-81 NATURAL GAS-FIRED BOILER WITH A ALZETA MODEL CSB-1210 LOW NO<sub>x</sub> BURNER

**C-628-13-5:** 43.4 MMBTU/HR NEBRASKA MODEL NS-C-42-ECON NATURAL GAS-FIRED BOILER WITH A ALZETA ULTRA-LOW NO<sub>x</sub> BURNER

## **VI. EMISSION CONTROL TECHNOLOGY EVALUATION**

The units will be equipped with an ultra low-NO<sub>x</sub> burner capable of achieving NO<sub>x</sub> and CO emissions of 7 ppmvd @ 3% O<sub>2</sub>, and are fired on PUC-quality natural gas or LPG.

Low-NO<sub>x</sub> burners reduce NO<sub>x</sub> formation by producing lower flame temperatures (and longer flames) than conventional burners. Conventional burners thoroughly mix all the fuel and air in a single stage just prior to combustion, whereas low-NO<sub>x</sub> burners delay the mixing of fuel and air by introducing the fuel (or sometimes the air) in multiple stages. Generally, in the first combustion stage, the air-fuel mixture is fuel rich. In a fuel rich environment, all the oxygen will be consumed in reactions with the fuel, leaving no excess oxygen available to react with nitrogen to produce thermal NO<sub>x</sub>. In the secondary and tertiary stages, the combustion zone is maintained in a fuel-lean environment. The excess air in these stages helps to reduce the flame temperature so that the reaction between the excess oxygen with nitrogen is minimized.

## **VII. GENERAL CALCULATIONS**

### **A. Assumptions**

- The maximum operating schedule is 24 hours per day
- Annual pre-project and post-project potential to emit is calculated based on 8,760 hours of operation per year
- Natural Gas Heating Value: 1,000 Btu/scf (District Practice)
- F-Factor for Natural Gas: 8,578 dscf/MMBtu corrected to 60°F (40 CFR 60, Appendix B)

**B. Emission Factors**

***Pre-Project Emission Factors (EF1)***

For this unit, the EF1 are listed in the table below.

Per District Policy APR 1110 (Use of Revised EFs), the SO<sub>x</sub> EF will be revised to the generally accepted EF of 0.00285 lb-SO<sub>x</sub>/MMBtu, as identified in District Policy APR 1720 (Generally Accepted SO<sub>x</sub> Emission Factor for Combustion of PUC-quality Natural Gas).

Permit units C-628-4-7 and C-628-5-7 are identical; therefore, the pre-project & post-project emissions factors apply to each boiler. The pre-project emissions factors for firing on natural gas are shown in the table below:

Pollutant	Pre-Project Emission Factors (EF1) for Natural Gas		Source
NO <sub>x</sub>	0.011 lb-NO <sub>x</sub> /MMBtu	9 ppmvd NO <sub>x</sub> (@ 3%O <sub>2</sub> )	Applicant
SO <sub>x</sub>	0.00285 lb-SO <sub>x</sub> /MMBtu	N/A	District Policy APR 1720
PM <sub>10</sub>	0.0076 lb-PM <sub>10</sub> /MMBtu	N/A	AP-42 Table 1.4-2 (07/98)
CO	0.074 lb-CO/MMBtu	100 ppmvd CO (@ 3%O <sub>2</sub> )	Applicant
VOC	0.0055 lb-VOC/MMBtu	N/A	AP-42 table 1.4-2 (07/98)

The following table outlines the pre-project emissions factors, used when firing on LPG.

Pollutant	Pre-Project LPG Emission Factors (EF1)			Source
NO <sub>x</sub>	N/A	0.011 lb-NO <sub>x</sub> /MMBtu	9 ppmvd NO <sub>x</sub> (@ 3% O <sub>2</sub> )	Applicant
SO <sub>x</sub>	1.5 lb/1000 gal <sup>(1)</sup>	0.017 lb-SO <sub>x</sub> /MMBtu <sup>(2)</sup>	N/A	AP-42 Table 1.5-1 (7/98)
PM <sub>10</sub>	0.6 lb/1000 gal	0.0044 lb-PM <sub>10</sub> /MMBtu <sup>(2)</sup>	N/A	AP-42 Table 1.5-1
CO	N/A	0.148 lb-CO/MMBtu	200 ppmvd CO (@ 3%O)	Applicant
VOC	0.3 lb/1000 gal	0.003 lb-VOC/MMBtu <sup>(2)</sup>	N/A	AP-42 Table 1.5-1

(1) SO<sub>x</sub> = 0.1(S), where S = sulfur content in gr/100 scf = 0.1 (15) = 1.5 lb/1000 gal where, maximum sulfur content of LPG is 15 gr/100 scf (CRC Handbook of Tables for Applied Engineering Science, 2<sup>nd</sup> Edition, page 390).

(2) Based on a heating value of 90,500 Btu/gal for propane (AP-42, Section 1.5, 10/96).

For unit -13-3, the natural gas pre-project emission factors are listed in the table below.

Pollutant	Pre-Project NG Emission Factors (EF1)		Source
NO <sub>x</sub>	0.011 lb-NO <sub>x</sub> /MMBtu	9 ppmvd NO <sub>x</sub> (@ 3%O <sub>2</sub> )	PTO C-628-13-3
SO <sub>x</sub>	0.00285 lb-SO <sub>x</sub> /MMBtu	N/A	PTO C-628-13-3
PM <sub>10</sub>	0.013 lb-PM <sub>10</sub> /MMBtu	N/A	PTO C-628-13-3
CO	0.034 lb-CO/MMBtu	46 ppmvd CO (@ 3%O <sub>2</sub> )	PTO C-628-13-3
VOC	0.003 lb-VOC/MMBtu	N/A	PTO C-628-13-3

For this unit, the LPG pre-project emission factors are listed in the table below.

Pollutant	Pre-Project LPG Emission Factors (EF1)		Source
NO <sub>x</sub>	N/A	0.011 lb-NO <sub>x</sub> /MMBtu	9 ppmvd NO <sub>x</sub> (@ 3%O <sub>2</sub> )
SO <sub>x</sub>	1.5 lb/1000 gal	0.017 lb-SO <sub>x</sub> /MMBtu	N/A
PM <sub>10</sub>	0.6 lb/1000 gal	0.007 lb-PM <sub>10</sub> /MMBtu	N/A
CO	N/A	0.034 lb-CO/MMBtu	46 ppmvd CO (@ 3%O <sub>2</sub> )
VOC	0.3 lb/1000 gal	0.003 lb-VOC/MMBtu	N/A

According to boiler manufacturers, low NO<sub>x</sub> burners will achieve their rated emissions within one to two minutes of initial startup and do not require a special shutdown procedure. Because of the short duration before achieving the rated emission factor following startup, the emissions factors for this unit during startup and shutdown will be assumed to be the same as the steady state emission factors shown in the table above.

**Post-Project Emission Factors (EF2)**

For units -4-7 and -5-7, post-project emission factors are listed in the table below.

Pollutant	Post-Project Emission Factors (EF2) for Natural Gas		Source
NO <sub>x</sub>	0.008 lb-NO <sub>x</sub> /MMBtu	7 ppmvd NO <sub>x</sub> (@ 3%O <sub>2</sub> )	Applicant
SO <sub>x</sub>	0.00285 lb-SO <sub>x</sub> /MMBtu	N/A	District Policy APR 1720
PM <sub>10</sub>	0.0076 lb-PM <sub>10</sub> /MMBtu	N/A	AP-42 Table 1.4-2 (07/98)
CO	0.074 lb-CO/MMBtu	100 ppmvd CO (@ 3%O <sub>2</sub> )	Applicant
VOC	0.0055 lb-VOC/MMBtu	N/A	AP-42 table 1.4-2 (07/98)

The following table outlines the post-project emissions factors, used when firing on LPG.

Pollutant	Post-Project LPG Emission Factors (EF2)			Source
NO <sub>x</sub>	N/A	0.008 lb-NO <sub>x</sub> /MMBtu	7 ppmvd NO <sub>x</sub> (@ 3% O <sub>2</sub> )	Applicant
SO <sub>x</sub>	1.5 lb/1000 gal <sup>(1)</sup>	0.017 lb-SO <sub>x</sub> /MMBtu <sup>(2)</sup>	N/A	AP-42 Table 1.5-1 (7/98)
PM <sub>10</sub>	0.6 lb/1000 gal	0.0044 lb-PM <sub>10</sub> /MMBtu <sup>(2)</sup>	N/A	AP-42 Table 1.5-1
CO	N/A	0.148 lb-CO/MMBtu	200 ppmvd CO (@ 3%O)	Applicant
VOC	0.3 lb/1000 gal	0.003 lb-VOC/MMBtu <sup>(2)</sup>	N/A	AP-42 Table 1.5-1

(1) SO<sub>x</sub> = 0.1(S), where S = sulfur content in gr/100 scf = 0.1 (15) = 1.5 lb/1000 gal where, maximum sulfur content of LPG is 15 gr/100 scf (CRC Handbook of Tables for Applied Engineering Science, 2<sup>nd</sup> Edition, page 390).

(2) Based on a heating value of 90,500 Btu/gal for propane (AP-42, Section 1.5, 10/96).

For unit -13-3, the natural gas post-project emission factors are listed in the table below.

Pollutant	Post-Project NG Emission Factors (EF2)		Source
NO <sub>x</sub>	0.008 lb-NO <sub>x</sub> /MMBtu	7 ppmvd NO <sub>x</sub> (@ 3%O <sub>2</sub> )	PTO C-628-13-3
SO <sub>x</sub>	0.00285 lb-SO <sub>x</sub> /MMBtu	N/A	PTO C-628-13-3
PM <sub>10</sub>	0.013 lb-PM <sub>10</sub> /MMBtu	N/A	PTO C-628-13-3
CO	0.034 lb-CO/MMBtu	46 ppmvd CO (@ 3%O <sub>2</sub> )	PTO C-628-13-3
VOC	0.003 lb-VOC/MMBtu	N/A	PTO C-628-13-3

For unit -13-3, the LPG post-project emission factors are not changing and are listed in the table below.

<b>Pollutant</b>	<b>Post-Project LPG Emission Factors (EF2)</b>		<b>Source</b>
NO <sub>x</sub>	N/A	0.008 lb-NO <sub>x</sub> /MMBtu	7 ppmvd NO <sub>x</sub> (@ 3%O <sub>2</sub> )
SO <sub>x</sub>	1.5 lb/1000 gal	0.017 lb-SO <sub>x</sub> /MMBtu	N/A
PM <sub>10</sub>	0.6 lb/1000 gal	0.007 lb-PM <sub>10</sub> /MMBtu	N/A
CO	N/A	0.034 lb-CO/MMBtu	46 ppmvd CO (@ 3%O <sub>2</sub> )
VOC	0.3 lb/1000 gal	0.003 lb-VOC/MMBtu	N/A

According to boiler manufacturers, low NO<sub>x</sub> burners will achieve their rated emissions within one to two minutes of initial startup and do not require a special shutdown procedure. Because of the short duration before achieving the rated emission factor following startup, the emissions factors for this unit during startup and shutdown will be assumed to be the same as the steady state emission factors shown in the table above.

**C. Calculations**

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

The PE1 for each pollutant is calculated with the following equation:

▪  $PE1 = EF \text{ (lb/MMBtu)} \times \text{Heat Input (MMBtu/hr)} \times \text{Op. Sched. (hr/day or hr/year)}$

<b>Daily PE1 C-628-4-7 &amp; -5-7</b>				
<b>Pollutant</b>	<b>EF1 (lb/MMBtu)</b>	<b>Heat Input (MMBtu/hr)</b>	<b>Operating Schedule (hr/day)</b>	<b>Daily PE1 (lb/day)</b>
<b>NO<sub>x</sub></b>	0.011	97	24	25.6
<b>SO<sub>x</sub></b>	0.00285	97	24	6.6
<b>PM<sub>10</sub></b>	0.0076	97	24	17.7
<b>CO</b>	0.074	97	24	172.3
<b>VOC</b>	0.0055	97	24	12.8

<b>Annual PE1 C-628-4-7 &amp; -5-7</b>				
<b>Pollutant</b>	<b>EF1 (lb/MMBtu)</b>	<b>Heat Input (MMBtu/hr)</b>	<b>Operating Schedule (hr/year)</b>	<b>Annual PE1 (lb/year)</b>
<b>NO<sub>x</sub></b>	0.011	97	8,760	9,347
<b>SO<sub>x</sub></b>	0.00285	97	8,760	2,422
<b>PM<sub>10</sub></b>	0.0076	97	8,760	6,458
<b>CO</b>	0.074	97	8,760	62,879
<b>VOC</b>	0.0055	97	8,760	4,673

<b>Daily PE1 C-628-13-3</b>				
<b>Pollutant</b>	<b>EF1 (lb/MMBtu)</b>	<b>Heat Input (MMBtu/hr)</b>	<b>Operating Schedule (hr/day)</b>	<b>Daily PE1 (lb/day)</b>
<b>NO<sub>x</sub></b>	0.011	43.4	24	11.5
<b>SO<sub>x</sub></b>	0.00285	43.4	24	3.0
<b>PM<sub>10</sub></b>	0.0130	43.4	24	13.5
<b>CO</b>	0.034	43.4	24	35.4
<b>VOC</b>	0.0030	43.4	24	3.1

  

<b>Annual PE1 C-628-13-3</b>				
<b>Pollutant</b>	<b>EF1 (lb/MMBtu)</b>	<b>Heat Input (MMBtu/hr)</b>	<b>Operating Schedule (hr/year)</b>	<b>Annual PE1 (lb/year)</b>
<b>NO<sub>x</sub></b>	0.011	43.4	8,760	4,182
<b>SO<sub>x</sub></b>	0.00285	43.4	8,760	1,084
<b>PM<sub>10</sub></b>	0.0130	43.4	8,760	4,942
<b>CO</b>	0.034	43.4	8,760	12,926
<b>VOC</b>	0.0030	43.4	8,760	1,141

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

The PE2 for each pollutant is calculated with the following equation:

▪  $PE2 = EF \text{ (lb/MMBtu)} \times \text{Heat Input (MMBtu/hr)} \times \text{Op. Sched. (hr/day or hr/year)}$

<b>Daily PE2 C-628-4-9 &amp; -5-9</b>				
<b>Pollutant</b>	<b>EF1 (lb/MMBtu)</b>	<b>Heat Input (MMBtu/hr)</b>	<b>Operating Schedule (hr/day)</b>	<b>Daily PE1 (lb/day)</b>
<b>NO<sub>x</sub></b>	0.008	97	24	18.6
<b>SO<sub>x</sub></b>	0.00285	97	24	6.6
<b>PM<sub>10</sub></b>	0.0076	97	24	17.7
<b>CO</b>	0.074	97	24	172.3
<b>VOC</b>	0.0055	97	24	12.8

<b>Annual PE2 C-628-4-9 &amp; -5-9</b>				
<b>Pollutant</b>	<b>EF1 (lb/MMBtu)</b>	<b>Heat Input (MMBtu/hr)</b>	<b>Operating Schedule (hr/year)</b>	<b>Annual PE1 (lb/year)</b>
<b>NO<sub>x</sub></b>	0.008	97	8,760	6,798
<b>SO<sub>x</sub></b>	0.00285	97	8,760	2,422
<b>PM<sub>10</sub></b>	0.0076	97	8,760	6,458
<b>CO</b>	0.074	97	8,760	62,879
<b>VOC</b>	0.0055	97	8,760	4,673

<b>Daily PE2 C-628-13-5</b>				
<b>Pollutant</b>	<b>EF1 (lb/MMBtu)</b>	<b>Heat Input (MMBtu/hr)</b>	<b>Operating Schedule (hr/day)</b>	<b>Daily PE1 (lb/day)</b>
<b>NO<sub>x</sub></b>	0.008	43.4	24	8.3
<b>SO<sub>x</sub></b>	0.00285	43.4	24	3.0
<b>PM<sub>10</sub></b>	0.0130	43.4	24	13.5
<b>CO</b>	0.034	43.4	24	35.4
<b>VOC</b>	0.0030	43.4	24	3.1

<b>Annual PE2 C-628-13-5</b>				
<b>Pollutant</b>	<b>EF1 (lb/MMBtu)</b>	<b>Heat Input (MMBtu/hr)</b>	<b>Operating Schedule (hr/year)</b>	<b>Annual PE1 (lb/year)</b>
<b>NO<sub>x</sub></b>	0.008	43.4	8,760	3,041
<b>SO<sub>x</sub></b>	0.00285	43.4	8,760	1,084
<b>PM<sub>10</sub></b>	0.0130	43.4	8,760	4,942
<b>CO</b>	0.034	43.4	8,760	12,926
<b>VOC</b>	0.0030	43.4	8,760	1,141

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

SSPE1 calculations are necessary to aid the following determinations:

- If the facility is becoming a new Major Source,
- An offset threshold will be surpassed, or
- A Stationary Source Increase in Permitted Emissions (SSIPE) public notice is triggered

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

<b>SSPE1 (lb/yr)</b>					
<b>Permit Number</b>	<b>NO<sub>x</sub></b>	<b>SO<sub>x</sub></b>	<b>PM10</b>	<b>CO</b>	<b>VOC</b>
C-628-3-6	3,139	511	657	38,106	10,877
C-628-4-7	9,347	2,718	6,458	64,430	4,673
C-628-5-7	9,347	2,718	6,458	64,430	4,673
C-628-6-2	1,140	77	44	240	109
C-628-10-2	3,588	236	253	733	293
C-628-12-1	0	0	206	0	0
C-628-13-3	4,180	220	5,200	12,920	1,040
C-628-14-3	4	1	17	273	18
C-628-15-0 through C-628-435-0, and '476-0 thought '478-0	0	0	0	0	103,665
<b>SSPE1</b>	<b>30,745</b>	<b>6,481</b>	<b>19,293</b>	<b>181,132</b>	<b>125,348</b>

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

SSPE2 calculations are necessary to aid the following determinations:

- If the facility is becoming a new Major Source,
- An offset threshold will be surpassed, or
- An SSIPE public notice is triggered

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

<b>SSPE1 (lb/yr)</b>					
<b>Permit Number</b>	<b>NO<sub>x</sub></b>	<b>SO<sub>x</sub></b>	<b>PM10</b>	<b>CO</b>	<b>VOC</b>
C-628-3-6	3,139	511	657	38,106	10,877
C-628-4-9	6,798	2,718	6,458	64,430	4,673
C-628-5-9	6,798	2,718	6,458	64,430	4,673
C-628-6-2	1,140	77	44	240	109
C-628-10-2	3,588	236	253	733	293
C-628-12-1	0	0	206	0	0
C-628-13-5	3,041	220	5,200	12,920	1,040
C-628-14-3	4	1	17	273	18
C-628-15-0 through C-628-435-0, and '476-0 thought '478-0	0	0	0	0	103,665
<b>SSPE1</b>	<b>24,508</b>	<b>6,481</b>	<b>19,293</b>	<b>181,132</b>	<b>125,348</b>

## 5. Major Source Determination

A Major Source Determination is necessary in order to:

- Identify new Major Sources and
- Aid BE determinations, for amount of offsets required calculations

Pursuant to Section 3.23 of District Rule 2201, a major source is a stationary source a Post-Project Stationary Source Potential to Emit (SSPE2), equal to or exceeding one or more of the Major Source threshold values (excluding ERCs banked onsite that have not been used onsite).

Major Source Determination					
Pollutant	SSPE1 (lb/yr)	SSPE2 (lb/yr)	Major Source Threshold (lb/yr)	Existing Major Source?	Becoming a Major Source?
NO <sub>x</sub>	30,745	24,508	50,000	No	No
SO <sub>x</sub>	6,481	6,481	140,000	No	No
PM <sub>10</sub>	19,293	19,298	140,000	No	No
CO	181,132	181,214	200,000	No	No
VOC	125,348	125,353	50,000	Yes	No

As seen in the table above, the facility is a major source of VOC.

## 6. Baseline Emissions (BE)

The BE calculation (in lb/year) is performed on a pollutant-by-pollutant basis to determine the amount of offsets required, where necessary, when the SSPE1 is greater than the offset threshold. This project is exempt from offsets pursuant to Rule 2201, Section 4.6.8. Therefore, BE calculations are not required.

## 7. Major Modification

Section 3.23 of District Rule 2201 defines a 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."*

As discussed in Section VII.C.5 previously, the facility is a Major Source; however, the project by itself would need to be a significant increase in order to trigger a Major Modification. As seen in Section VII.C.2 and presented in the following table, the modified emissions unit involved with this project does not have a potential to emit which is greater than Major Modification thresholds. Therefore, the project cannot be a significant and the project does not constitute a Major Modification.

<b>Major Modification Thresholds for Existing Major Sources</b>			
Pollutant	Annual Emissions for unit -4-9 & -5-9 (lb/yr)	Major Modification Threshold (lb/yr)	Major Modification ?
NO <sub>x</sub>	6,798	50,000	No
SO <sub>x</sub>	2,422	80,000	No
PM10	6,458	30,000	No
VOC	4,673	50,000	No

<b>Major Modification Thresholds for Existing Major Sources</b>			
Pollutant	Annual Emissions for unit -13-5 (lb/yr)	Major Modification Threshold (lb/yr)	Major Modification ?
NO <sub>x</sub>	3,041	50,000	No
SO <sub>x</sub>	1,084	80,000	No
PM10	4,942	30,000	No
VOC	1,141	50,000	No

**8. Quarterly Net Emissions Change (QNEC)**

The QNEC will be calculated for each pollutant, for each unit, as the difference between the quarterly PE2 and the quarterly PE1. The QNEC for each pollutant is shown in the tables below:

<b>QNEC for Units -4-9 &amp; -5-9</b>				
Pollutant	PE2 (lb/yr)	PE1 (lb/yr)	NEC	QNEC (lb/qtr)
NO <sub>x</sub>	6,798	9,347	-2,549	-637.3
VOC	4,673	4,673	0	0
CO	62,879	62,879	0	0
PM10	6,458	6,458	0	0
SO <sub>x</sub>	2,422	2,422	0	0

<b>QNEC for Units -13.5</b>				
<b>Pollutant</b>	<b>PE2 (lb/yr)</b>	<b>PE1 (lb/yr)</b>	<b>NEC</b>	<b>QNEC (lb/qtr)</b>
NO <sub>x</sub>	3,041	4,182	-1,141	-285.3
VOC	1,141	1,141	0	0
CO	12,926	12,926	0	0
PM10	4,942	4,942	0	0
SO <sub>x</sub>	1,084	1,084	0	0

## VIII. COMPLIANCE

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

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

##### 1. BACT Applicability

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

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

\*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.

However, BACT shall not be required for the following:

4.2.3 For existing facilities, the installation or modification of an emission control technique performed solely for the purpose of compliance with the requirements of District, State or Federal air pollution control laws, regulations, or orders, as approved by the APCO, shall be exempt from Best Available Control Technology for all air pollutants, provided all of the following conditions are met:

4.2.3.1 There shall be no increase in the physical or operational design of the existing facility, except for those changes to the design needed for the installation or modification of the emission control technique itself;

4.2.3.2 There shall be no increase in the permitted rating or permitted operating schedule of the permitted unit;

- 4.2.3.3 There shall be no increase in emissions from the stationary source that will cause or contribute to any violation of a National Ambient Air Quality Standard, Prevention of Significant Deterioration increment, or Air Quality Related Value in Class I areas; and
- 4.2.3.4 The project shall not result in an increase in permitted emissions or potential to emit of more than 25 tons per year of NO<sub>x</sub>, or 25 tons per year of VOC, or 15 tons per year of SO<sub>x</sub>, or 15 tons per year of PM<sub>10</sub>, or 50 tons per year of CO.
- 4.2.3.5 The project shall not constitute a Federal Major Modification.

Since each of the above-listed criteria are met, BACT is not triggered for any pollutant.

## **2. BACT Guideline**

Since BACT is not triggered, the proposed operation is not subject to any BACT guideline. No further discussion is required.

## **3. Top-Down BACT Analysis**

Since BACT is not triggered, the proposed operation is not subject to a top-down BACT analysis. No further discussion is required.

# **B. Offsets**

## **1. Offset Applicability**

The proposed modifications are solely for compliance with Rule 4320, and are exempt from offsets if the following criteria are satisfied. Rule 2201, Section 4.6.8 provides the following exemption from offsets.

Emission offsets shall not be required for the following:

- 4.6.8 For existing facilities, the installation or modification of an emission control technique performed solely for the purpose of compliance with the requirements of District, State or Federal air pollution control laws, regulations, or orders, as approved by the APCO, shall be exempt from offset requirements for all air pollutants provided all of the following conditions are met:
  - 4.6.8.1 There shall be no increase in the physical or operational design of the existing facility, except for those changes to the design needed for the installation or modification of the emission control technique itself;
  - 4.6.8.2 There shall be no increase in the permitted rating or permitted operating schedule of the permitted unit;
  - 4.6.8.3 There shall be no increase in emissions from the stationary source that will cause or contribute to any violation of a National Ambient Air

Quality Standard, Prevention of Significant Deterioration increment, or Air Quality Related Value in Class I areas; and

4.6.8.4 The project shall not result in an increase in permitted emissions or potential to emit of more than 25 tons per year of NO<sub>x</sub>, or 25 tons per year of VOC, or 15 tons per year of SO<sub>x</sub>, or 15 tons per year of PM-10, or 50 tons per year of CO.

4.6.8.5 The project shall not constitute a Federal Major Modification.

Since the above-listed criteria are met, offsets are not triggered for any pollutant.

## **2. Quantity of Offsets Required**

As seen above, the project meets the exemption requirements of section 4.6.8 of District Rule 2201; therefore offset calculations are not necessary and offsets are not required for this project.

## **C. Public Notification**

### **1. Applicability**

Public noticing is required for:

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

#### **a. New Major Source**

As demonstrated in section VII.C.5 above, the facility is not becoming a Major Source as a result of this project.

#### **b. Major Modification**

As demonstrated in VII.C.7, this project does not constitute a Major Modification; therefore, public noticing for Major Modification purposes is not required.

#### **c. 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. There are no new emissions units associated with this project; therefore public noticing is not required for this project for Potential to Emit exceeding the 100 lb/day limit.

**d. Offset Threshold**

Public notification is required if the Pre-Project Stationary Source Potential to Emit (SSPE1) is increased from a level below the offset threshold to a level exceeding the emissions offset threshold, for any pollutant.

There is no increase in permitted emissions as a result of this project. Therefore, the SSPE is not increasing with this project and an offset threshold cannot be surpassed as a result of this project. A public notice will not be required for offset threshold purposes.

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

An SSIPE exceeding 20,000 pounds per year for any one pollutant triggers public notice, where  $SSIPE = SSPE2 - SSPE1$ .

There is no increase in permitted emissions as a result of this project. As a result, SSPE is not increasing with this project. Therefore, the SSIPE is zero for all pollutants and public notice will not be required for SSIPE purposes.

**2. Public Notice Action**

As discussed above, public notice will not be required for this project.

**D. Daily Emission Limits (DELs)**

Daily Emissions Limitations (DELs) and other enforceable conditions are required by Section 3.15 to restrict a unit's maximum daily emissions, to a level at or below the emissions associated with the maximum design capacity. Per Sections 3.15.1 and 3.15.2, 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.

The DELs for the unit is based on the use of natural gas as a fuel with LPG as a backup source of fuel and will be stated in the form of emission factors as shown for units -4-9 & -5-9:

- {3200} Emissions from the natural gas-fired unit shall not exceed any of the following limits: 7 ppmvd NO<sub>x</sub> @ 3% O<sub>2</sub> or 0.008 lb-NO<sub>x</sub>/MMBtu, 0.00285 lb-SO<sub>x</sub>/MMBtu, 0.0076 lb-PM10/MMBtu, 100 ppmvd CO @ 3% O<sub>2</sub> or 0.074 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306, and 4320]
- {3309} Emissions from the LPG unit shall not exceed any of the following limits: 7 ppmvd NO<sub>x</sub> @ 3% O<sub>2</sub> or 0.008 lb-NO<sub>x</sub>/MMBtu, 0.017 lb-SO<sub>x</sub>/MMBtu, 0.0044 lb-PM10/MMBtu, 200 ppmvd CO @ 3% O<sub>2</sub> or 0.148 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306, and 4320]

And for unit -13-5

- {3200} Emissions from the natural gas-fired unit shall not exceed any of the following limits: 7 ppmvd NO<sub>x</sub> @ 3% O<sub>2</sub> or 0.008 lb-NO<sub>x</sub>/MMBtu, 0.00285 lb-SO<sub>x</sub>/MMBtu, 0.013 lb-PM10/MMBtu, 46 ppmvd CO @ 3% O<sub>2</sub> or 0.034 lb-CO/MMBtu, or 0.003 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306, and 4320]
- {3309} Emissions from the natural gas-fired unit shall not exceed any of the following limits: 7 ppmvd NO<sub>x</sub> @ 3% O<sub>2</sub> or 0.008 lb-NO<sub>x</sub>/MMBtu, 0.017 lb-SO<sub>x</sub>/MMBtu, 0.007 lb-PM10/MMBtu, 46 ppmvd CO @ 3% O<sub>2</sub> or 0.034 lb-CO/MMBtu, or 0.003 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306, and 4320]

In addition the following permit conditions will appear on the permit:

- {2964} The unit shall only be fired on PUC-regulated natural gas or LPG as a secondary fuel. [District Rule 2201]

## **E. Compliance Assurance**

### **1. Source Testing**

This unit is subject to District Rule 4305, *Boilers, Steam Generators and Process Heaters, Phase 2*, District Rule 4306, *Boilers, Steam Generators and Process Heaters, Phase 3*, and District Rule 4320 *Advanced Emission Reduction Options for Boilers, Steam Generators, and Process Heaters Greater than 5.0 MMBtu/hr*. Source testing requirements, in accordance with District Rules 4305, 4306, and 4320 will be discussed in Section VIII, District Rule 4320 of this evaluation.

### **2. Monitoring**

As required by District Rule 4305, *Boilers, Steam Generators and Process Heaters, Phase 2*, District Rule 4306, *Boilers, Steam Generators and Process Heaters, Phase 3*, and District Rule 4320 *Advanced Emission Reduction Options for Boilers, Steam Generators, and Process Heaters Greater than 5.0 MMBtu/hr*, this unit is subject to monitoring requirements. Monitoring requirements, in accordance with District Rules 4305, 4306, and 4320 will be discussed in Section VIII, District Rule 4320 of this evaluation.

### **3. Recordkeeping**

As required by District Rule 4305, *Boilers, Steam Generators and Process Heaters, Phase 2*, District Rule 4306, *Boilers, Steam Generators and Process Heaters, Phase 3*, and District Rule 4320 *Advanced Emission Reduction Options for Boilers, Steam Generators, and Process Heaters Greater than 5.0 MMBtu/hr*, this unit is subject to recordkeeping requirements. Recordkeeping requirements, in accordance with District Rules 4305, 4306, and 4320 will be discussed in Section VIII, District Rule 4320 of this evaluation.

The following permit condition will be listed on permit as follows:

- {2983} 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, 4305, 4306, and 4320]

#### 4. Reporting

No reporting is required to demonstrate compliance with Rule 2201.

#### District Rule 2520 Federally Mandated Operating Permits

Constellation Wines U.S. (DBA Mission Bell Winery) has a Title V permit. The changes authorized by this ATC constitute a minor modification of their Title V permit. The facility has requested that this ATC be issued with a Certificate of Conformity (COC). Therefore, prior to issuance, this ATC will undergo a 45 day EPA review. Prior to initial operation under this ATC, the applicant must submit a Title V application for an administrative amendment, and permit conditions will be listed as follows:

- {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 NSR Rule]
- {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]

#### District Rule 4001 New Source Performance Standards

40 CFR Part 60, Subpart Dc applies to Small Industrial-Commercial-Industrial Steam Generators between 10 MMBtu/hr and 100 MMBtu/hr (post-6/9/89 construction, modification or, reconstruction)

40 CFR Part 60, Subpart A, section 14, defines the meaning of modification to which the the standards are applicable. §60.14, paragraph (e)(5) states that the following will not be considered as a modification: *“the addition or use of any system or device whose primary function is the reduction of air pollutants, except when an emission control system is removed or replaced by a system which the Administrator determines to be less environmentally beneficial”*.

No newly constructed or reconstructed units are proposed in this project, nor is the unit being modified (as defined above). Since the permittee is retrofitting the unit with an equivalent size, or smaller, burner for compliance with District rules and regulations, the requirements of these sections are not triggered due to the proposed modification.

### **District Rule 4101 Visible Emissions**

District Rule 4101, Section 5.0, indicates that no air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour, which is dark or darker than Ringelmann 1 or equivalent to 20% opacity.

A permit condition will be listed on the permit as follows:

- {15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]

Therefore, compliance with District Rule 4101 requirements is expected.

### **District 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.

A permit condition will be listed on the permit as follows:

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

### **California Health & Safety Code 41700 (Health Risk Assessment)**

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

Since the applicant is not proposing an increase in fuel usage<sup>or emissions</sup> with this project, a health risk assessment is not necessary and no further risk analysis is required.

**District Rule 4201 Particulate Matter Concentration**

Section 3.1 prohibits discharge of dust, fumes, or total particulate matter into the atmosphere from any single source operation in excess of 0.1 grain per dry standard cubic foot.

F-Factor for NG: 8,578 dscf/MMBtu at 60 °F  
 PM10 Emission Factor: 0.0076 lb-PM10/MMBtu  
 Percentage of PM as PM10 in Exhaust: 100%  
 Exhaust Oxygen (O<sub>2</sub>) Concentration: 3%  
 Excess Air Correction to F Factor =  $\frac{20.9}{(20.9 - 3)} = 1.17$

$$GL = \left( \frac{0.0076 \text{ lb-PM}}{\text{MMBtu}} \times \frac{7,000 \text{ grain}}{\text{lb-PM}} \right) / \left( \frac{8,578 \text{ ft}^3}{\text{MMBtu}} \times 1.17 \right)$$

$GL = 0.0053 \text{ grain/dscf} < 0.1 \text{ grain/dscf}$

Therefore, compliance with District Rule 4201 requirements is expected and a permit condition will be listed on the permit as follows:

- {14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]

**District Rule 4301 Fuel Burning Equipment**

This rule specifies maximum emission rates in lb/hr for SO<sub>2</sub>, NO<sub>2</sub>, and combustion contaminants (defined as total PM in Rule 1020). This rule also limits combustion contaminants to ≤ 0.1 gr/scf. According to AP 42 (Table 1.4-2, footnote c), all PM emissions from natural gas combustion are less than 1 μm in diameter.

District Rule 4301 Limits			
Pollutant	NO <sub>2</sub>	Total PM	SO <sub>2</sub>
ATC C-628-4-9 (lb/hr)	0.78	0.74	0.28
ATC C-628-5-9 (lb/hr)	0.78	0.74	0.28
ATC C-628-13-3 (lb/hr)	0.35	0.56	0.13
Rule Limit (lb/hr)	140	10	200

The above table indicates compliance with the maximum lb/hr emissions in this rule; therefore, continued compliance is expected.

**District Rule 4305 Boilers, Steam Generators and Process Heaters – Phase 2**

The subject units is subject to Rule 4305, *Boilers, Steam Generators and Process Heaters – Phase 2*.

In addition, the units is also subject to District Rule 4320. Since emissions limits of Rule 4320 and all other requirements are equivalent or more stringent than District Rule 4305 requirements, compliance with District Rule 4320 requirements will satisfy requirements of District Rule 4305.

Therefore, compliance with District Rule 4305 requirements is expected and no further discussion is required.

**District Rule 4306 Boilers, Steam Generators and Process Heaters – Phase 3**

The unit is subject to District Rule 4306, *Boilers, Steam Generators and Process Heaters – Phase 3*.

Since emissions limits of District Rule 4320 and all other requirements are equivalent or more stringent than District Rule 4306 requirements, compliance with District Rule 4320 requirements will satisfy requirements of District Rule 4306.

Therefore, compliance with District Rule 4306 requirements is expected and no further discussion is required.

**Rule 4320 – Advanced Emission Reduction Options for Boilers, Steam Generators, and Process Heaters Greater than 5.0 MMBtu/hr**

**Section 5.2 NOx and CO Emission Limits**

The units are subject to the following NOx limits in Table 2, as shown below.

The applicant has proposed to meet the standard schedule NOx emission limit.

<b>Rule 4320 Emissions Limits</b>				
<b>Category</b>	<b>Operated on gaseous fuel</b>		<b>Operated on liquid fuel</b>	
	<b>NO<sub>x</sub> Limit</b>	<b>CO Limit</b>	<b>NO<sub>x</sub> Limit</b>	<b>CO Limit</b>
B. Units with a total rated heat input > 20.0 MMBtu/hr, except for Categories C through G units	a) Standard Schedule 7 ppmv or 0.008 lb/MMBtu; or	400 ppmv	40 ppmv or 0.052 lb/MMBtu	400 ppmv
	b) Enhanced Schedule 5 ppmv or 0.0062 lb/MMBtu			

Proposed emission factors for units -4-9 & -5-9:

- the proposed NO<sub>x</sub> emission factor is 7 ppmvd @ 3% O<sub>2</sub> (0.008 lb/MMBtu), and
- the proposed CO emission factor is 100 ppmvd @ 3% O<sub>2</sub> (0.074 lb/MMBtu).

Proposed emission factors for unit -13-3:

- the proposed NO<sub>x</sub> emission factor is 7 ppmvd @ 3% O<sub>2</sub> (0.008 lb/MMBtu), and
- the proposed CO emission factor is 46 ppmvd @ 3% O<sub>2</sub> (0.034 lb/MMBtu).

Therefore, compliance with Section 5.2 of District Rule 4320 is expected.

A permit condition listing the emissions limits will be listed on permit as shown in the DEL section above.

### **Section 5.4 Particulate Matter Control Requirements**

Section 5.4 of the rule requires one of four options for control of particulate matter: 1) combustion of PUC-quality natural gas, commercial propane, butane, or liquefied petroleum gas, or a combination of such gases, 2) limit fuel sulfur content to no more than five (5) grains of total sulfur per one hundred (100) standard cubic, 3) install and properly operate an emission control system that reduces SO<sub>2</sub> emissions by at least 95% by weight; or limit exhaust SO<sub>2</sub> to less than or equal to 9 ppmv corrected to 3.0% O<sub>2</sub> or 4) refinery units, which require modification of refinery equipment to reduce sulfur emissions, shall be in compliance with the applicable requirement in Section 5.4.1 no later than July 1, 2013.

Section 5.4 requirements will be met for units -4-9, -5-9 & -13-5 by using the following option: 1) combustion of PUC-quality natural gas, commercial propane, butane, or liquefied petroleum gas, or a combination of such gases.

### **Section 5.6, Startup and Shutdown Provisions**

Applicable emissions limits are not required during startup and shutdown provided The duration of each start-up or each shutdown shall not exceed two hours, the emission control system shall be in operation and emissions shall be minimized insofar as technologically feasible during start-up or shutdown or operator has submitted an application for a Permit to Operate condition to allow more than two hours for each start-up or each shutdown provided the operator meets all of the conditions specified in Sections 5.6.3.1 through 5.6.3.3.

### **Section 5.7, Monitoring Provisions**

Section 5.7 requires either use of a APCO approved Continuous Emissions Monitoring System (CEMS) for NO<sub>x</sub>, CO, and oxygen, or implementation of an APCO-approved Alternate Monitoring System.

In order to satisfy the requirements of District Rule 4320, the applicant has proposed to use pre-approved alternate monitoring scheme A (pursuant to District Policy SSP-1105), which requires that monitoring of NO<sub>x</sub>, CO, and O<sub>2</sub> exhaust concentrations shall be conducted at least once per month (in which a source test is not performed) using a portable analyzer. The following conditions will be incorporated into the permit in order to ensure compliance with the requirements of the proposed alternate monitoring plan:

- {4063} The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> at least once every month (in which a source test is not performed) using a portable analyzer that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306, and 4320]
- {4064} If either the NO<sub>x</sub> or CO concentrations corrected to 3% O<sub>2</sub>, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320]
- {4065} All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320]
- {4066} The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent by volume and the measured NO<sub>x</sub> and CO concentrations corrected to 3% O<sub>2</sub>, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, and 4320]

### **5.7.6 Monitoring SOx Emissions**

Section 5.7.6.1 Operators complying with Sections 5.4.1.1 or 5.4.1.2 shall provide an annual fuel analysis to the District unless a more frequent sampling and reporting period is included in the Permit To Operate. Sulfur analysis shall be performed in accordance with the test methods in Section 6.2.

Section 5.7.6.2 Operators complying with Section 5.4.1.3 by installing and operating a control device with 95% SOx reduction shall propose the key system operating parameters and frequency of the monitoring and recording. The monitoring option proposed shall be submitted for approval by the APCO.

Section 5.7.6.3 Operators complying with Section 5.4.1.3 shall perform an annual source test unless a more frequent sampling and reporting period is included in the Permit To Operate. Source tests shall be performed in accordance with the test methods in Section 6.2.

### **Section 5.8, Compliance Determination**

The unit currently operates in compliance with the Compliance Determination requirements of Section 5.8. No proposed changes to these requirements are proposed.

### **Section 6.1 Recordkeeping**

No proposed changes to recordkeeping requirements are proposed.

### **Section 6.2 Test Methods**

No proposed changes to test methods are proposed.

### **Section 6.3 Compliance Testing**

Section 6.3.1 requires that this unit be tested to determine compliance with the applicable requirements of section 5.2 not less than once every 12 months (no more than 30 days before or after the required annual source test date). Upon demonstrating compliance on two consecutive compliance source tests, the following source test may be deferred for up to thirty-six months.

Section 6.3.1.1 Units that demonstrate compliance on two consecutive 12-month source tests may defer the following 12-month source test for up to 36 months (no more than 30 days before or after the required 36-month source test date). During the 36-month source testing interval, the operator shall tune the unit in accordance with the provisions of Section 5.5.1, and shall monitor, on a monthly basis, the unit's operational characteristics recommended by the manufacturer to ensure compliance with the applicable emission limits specified in Section 5.2.

Section 6.3.1.2 Tune-ups required by Sections 5.5.1 and 6.3.1 do not need to be performed for units that operate and maintain an APCO approved CEMS or an APCO approved Alternate Monitoring System where the applicable emission limits are periodically monitored.

Section 6.3.1.3 If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits specified in Section 5.2, the source testing frequency shall revert to at least once every 12 months.

The following permit conditions will be listed on the permit as follows:

- {3467} Source testing to measure NO<sub>x</sub> and CO emissions from this unit while fired on natural gas shall be conducted within 60 days of initial start-up. [District Rules 2201, 4305, 4306, and 4320]
- {3466} Source testing to measure NO<sub>x</sub> and CO emissions from this unit while fired on natural gas shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306, and 4320]
- {110} The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]

Sections 6.3.2.1 through 6.3.2.7 address the requirements of group testing which is not proposed in this project. Therefore these sections are not applicable.

### **Conclusion**

Conditions will be incorporated into the permit in order to ensure compliance with each section of this rule, see attached draft permit(s). Therefore, compliance with District Rule 4320 requirements is expected.

### **District Rule 4351 Boilers, Steam Generators and Process Heaters – Phase 1**

This rule applies to boilers, steam generators, and process heaters at NO<sub>x</sub> Major Sources that are not located west of Interstate 5 in Fresno, Kings, or Kern counties. If applicable, the emission limits, monitoring provisions, and testing requirements of this rule are satisfied when the unit is operated in compliance with Rule 4320. Therefore, compliance with this rule is expected.

### **District Rule 4801 Sulfur Compounds**

A person shall not discharge into the atmosphere sulfur compounds, which would exist as a liquid or gas at standard conditions, exceeding in concentration at the point of discharge: 0.2 % by volume calculated as SO<sub>2</sub>, on a dry basis averaged over 15 consecutive minutes.

Compliance with the requirements of Rule 4320 ensures that the much higher emission limits of Rule 4801 will be met. Continued compliance is expected.

## **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.

### **Greenhouse Gas (GHG) Significance Determination**

It is determined that no other agency has or will prepare an environmental review document for the project. Thus the District is the Lead Agency for this project.

The District's engineering evaluation (this document) demonstrates that the project would not result in an increase in project specific greenhouse gas emissions. The District therefore concludes that the project would have a less than cumulatively significant impact on global climate change.

### **District CEQA Findings**

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

**IX. RECOMMENDATION**

Compliance with all applicable rules and regulations is expected. Issue Authorities to Construct C-628-4-9, -5-9 & -13-5 subject to the permit conditions on the attached draft Authorities to Construct in Appendix II.

See *Appendix II: Draft Authority to Construct ATC C-628-4-9, -5-9 & -13-5.*

**X. BILLING INFORMATION**

<b>Annual Permit Fees</b>			
<b>Permit Number</b>	<b>Fee Schedule</b>	<b>Fee Description</b>	<b>Annual Fee</b>
C-628-4-9	3020-02- H	97 MMBtu/hr	\$ 1030
C-628-5-9	3020-02- H	97 MMBtu/hr	\$ 1030
C-628-13-3	3020-02- H	43.4 MMBtu/hr	\$ 1030

**APPENDICES**

- Appendix I: Current Permits To Operate (PTO's)*
- Appendix II: Draft Authorities to Construct (ATC's)*
- Appendix III: Emissions Profiles*

## **APPENDIX I**

### **Current Permits To Operate**

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** C-628-4-7

**EXPIRATION DATE:** 11/30/2009

**EQUIPMENT DESCRIPTION:**

NEBRASKA MODEL NS-F-81 NATURAL GAS OR LPG-FIRED BOILER (WEST) WITH A 97 MMBTU/HR ALZETA MODEL CSB-1210 ULTRA-LOW NOX BURNER

## PERMIT UNIT REQUIREMENTS

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1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. The unit shall only be fired on PUC-regulated natural gas as the primary fuel and LPG as the backup fuel. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The sulfur content of the LPG backup fuel shall not exceed 15 grain per 100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit
5. When fired on natural gas, emissions rates from the unit shall not exceed any of the following limits: 9 ppmvd NOx @ 3% O2 or 0.011 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, 100 ppmvd CO @ 3% O2 or 0.074 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305, and 4306, 5.1.1] Federally Enforceable Through Title V Permit
6. When fired on LPG as backup fuel, emissions rates from the unit shall not exceed any of the following limits: 9 ppmvd NOx @ 3% O2 or 0.011 lb-NOx/MMBtu, 0.0044 lb-PM10/MMBtu, 200 ppmvd CO @ 3% O2 or 0.148 lb-CO/MMBtu, 0.0055 lb-VOC/MMBtu, or 0.017 lb-SOx/MMBtu. [District Rules 2201, 4305, and 4306, 5.1.1] Federally Enforceable Through Title V Permit
7. The unit shall be fired on LPG as backup fuel only during natural gas curtailment for no more than 168 cumulative hours in a calendar year plus 48 hours per calendar year for equipment testing. [District Rules 2201, 4305 and 4306, 4.2.1] Federally Enforceable Through Title V Permit
8. If the unit is fired on LPG as backup fuel for a period exceeding 48 cumulative hours in a calendar year, the permittee shall monitor and record the stack concentration of NOx at least once during that year using an APCO approved portable NOx analyzer. Monitoring for backup fuel NOx emissions shall not be required when the unit is operating on primary fuel, i.e. the unit need not be fired on backup fuel solely to perform monitoring. [District Rules 4305 and 4306, 4.2.1] Federally Enforceable Through Title V Permit
9. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305 and 4306, 5.5.2] 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.

10. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305 and 4306, 6.3.1] Federally Enforceable Through Title V Permit
11. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305 and 4306, 5.5.1] Federally Enforceable Through Title V Permit
12. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
13. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305 and 4306, 6.2.2 and 6.2.5] Federally Enforceable Through Title V Permit
14. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305 and 4306, 6.2.3] Federally Enforceable Through Title V Permit
15. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305 and 4306, 6.2.4] Federally Enforceable Through Title V Permit
16. Fuel hhv for source test purposes shall be certified by a third party fuel supplier or determined using ASTM D 1826 or D1945 in conjunction with ASTM D 3588 for gaseous fuels or ASTM D 240 or D 2382 for liquid hydrocarbon fuels. [District Rules 4305, 6.2.1 and 4306, 6.2.1] Federally Enforceable Through Title V Permit
17. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305 and 4306, 5.5.5] Federally Enforceable Through Title V Permit
18. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
19. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306, 5.4.2] Federally Enforceable Through Title V Permit
20. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305 and 4306, 5.4.2] Federally Enforceable Through Title V Permit
21. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306, 5.4.2 and 5.4.4] 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.

22. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 3% O<sub>2</sub>, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305 and 4306, 5.4] Federally Enforceable Through Title V Permit
23. Daily and annual records of backup LPG consumption consisting of the date the boiler operated on LPG and the amount of time the boiler was operated, in hours, on LPG shall be maintained. [District Rules 2201, 4305, and 4306, 6.1.1] Federally Enforceable Through Title V Permit
24. Permittee shall record the monthly fuel consumption. [District Rule 1070 and 2520, 9.3.2] Federally Enforceable Through Title V Permit
25. Operator shall maintain copies of LPG fuel invoices. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
26. The requirements of 40 CFR 72.6(b) are not applicable because this is not an affected unit under the acid rain provisions. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
27. 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, 4305, 4306, 6.1] Federally Enforceable Through Title V Permit

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

# San Joaquin Valley Air Pollution Control District

PERMIT UNIT: C-628-5-7

EXPIRATION DATE: 11/30/2009

**EQUIPMENT DESCRIPTION:**

NEBRASKA MODEL NS-F-81 NATURAL GAS OR LPG-FIRED BOILER (EAST) WITH A 97 MMBTU/HR ALZETA MODEL CSB-1210 ULTRA-LOW NOX BURNER

## PERMIT UNIT REQUIREMENTS

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1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. The unit shall only be fired on PUC-regulated natural gas as the primary fuel and LPG as the backup fuel. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The sulfur content of the LPG backup fuel shall not exceed 15 grain per 100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit
5. When fired on natural gas, emissions rates from the unit shall not exceed any of the following limits: 9 ppmvd NOx @ 3% O2 or 0.011 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, 100 ppmvd CO @ 3% O2 or 0.074 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305, and 4306, 5.1.1] Federally Enforceable Through Title V Permit
6. When fired on LPG as backup fuel, emissions rates from the unit shall not exceed any of the following limits: 9 ppmvd NOx @ 3% O2 or 0.011 lb-NOx/MMBtu, 0.0044 lb-PM10/MMBtu, 200 ppmvd CO @ 3% O2 or 0.148 lb-CO/MMBtu, 0.0055 lb-VOC/MMBtu, or 0.017 lb-SOx/MMBtu. [District Rules 2201, 4305, and 4306, 5.1.1] Federally Enforceable Through Title V Permit
7. The unit shall be fired on LPG as backup fuel only during natural gas curtailment for no more than 168 cumulative hours in a calendar year plus 48 hours per calendar year for equipment testing. [District Rules 2201, 4305 and 4306, 4.2.1] Federally Enforceable Through Title V Permit
8. If the unit is fired on LPG as backup fuel for a period exceeding 48 cumulative hours in a calendar year, the permittee shall monitor and record the stack concentration of NOx at least once during that year using an APCO approved portable NOx analyzer. Monitoring for backup fuel NOx emissions shall not be required when the unit is operating on primary fuel, i.e. the unit need not be fired on backup fuel solely to perform monitoring. [District Rules 4305 and 4306, 4.2.1] Federally Enforceable Through Title V Permit
9. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305 and 4306, 5.5.2] 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.

10. Source testing to measure natural gas-combustion NO<sub>x</sub> and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305 and 4306, 6.3.1] Federally Enforceable Through Title V Permit
11. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305 and 4306, 5.5.1] Federally Enforceable Through Title V Permit
12. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
13. NO<sub>x</sub> emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305 and 4306, 6.2.2 and 6.2.5] Federally Enforceable Through Title V Permit
14. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305 and 4306, 6.2.3] Federally Enforceable Through Title V Permit
15. Stack gas oxygen (O<sub>2</sub>) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305 and 4306, 6.2.4] Federally Enforceable Through Title V Permit
16. Fuel hhv for source test purposes shall be certified by a third party fuel supplier or determined using ASTM D 1826 or D1945 in conjunction with ASTM D 3588 for gaseous fuels or ASTM D 240 or D 2382 for liquid hydrocarbon fuels. [District Rules 4305, 6.2.1 and 4306, 6.2.1] Federally Enforceable Through Title V Permit
17. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305 and 4306, 5.5.5] Federally Enforceable Through Title V Permit
18. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
19. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306, 5.4.2] Federally Enforceable Through Title V Permit
20. If either the NO<sub>x</sub> or CO concentrations corrected to 3% O<sub>2</sub>, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305 and 4306, 5.4.2] Federally Enforceable Through Title V Permit
21. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306, 5.4.2 and 5.4.4] 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.

22. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 3% O<sub>2</sub>, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305 and 4306, 5.4] Federally Enforceable Through Title V Permit
23. Daily and annual records of backup LPG consumption consisting of the date the boiler operated on LPG and the amount of time the boiler was operated, in hours, on LPG shall be maintained. [District Rules 2201, 4305, and 4306, 6.1.1] Federally Enforceable Through Title V Permit
24. Permittee shall record the monthly fuel consumption. [District Rule 1070 and 2520, 9.3.2] Federally Enforceable Through Title V Permit
25. Operator shall maintain copies of LPG fuel invoices. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
26. The requirements of 40 CFR 72.6(b) are not applicable because this is not an affected unit under the acid rain provisions. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
27. 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, 4305, 4306, 6.1] Federally Enforceable Through Title V Permit

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

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** C-628-13-3

**EXPIRATION DATE:** 11/30/2009

**EQUIPMENT DESCRIPTION:**

43.4 MMBTU/HR NEBRASKA MODEL NS-C-42-ECON NATURAL GAS-FIRED BOILER, EQUIPPED WITH AN ALZETA ULTRA-LOW NOX BURNER WITH A VARIABLE FREQUENCY DRIVE FOR AIR INTAKE FAN MOTOR AND OXYGEN TRIM EQUIPMENT IN EXHAUST STACK

## PERMIT UNIT REQUIREMENTS

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1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102] Federally Enforceable Through Title V Permit
3. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
4. Particulate matter emissions shall not exceed 0.1 grain/dscf at operating conditions, nor 0.1 grain/dscf calculated to 12% CO<sub>2</sub>, nor 10 lb/hr. [District Rules 4201 and 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
5. The unit shall only be fired on PUC-regulated natural gas or liquefied petroleum gas (LPG) as secondary fuel. [District Rules 2201 and 4301, 5.2.1] Federally Enforceable Through Title V Permit
6. When firing on natural gas, emissions from the boiler shall not exceed any of the following limits: 9 ppmv NO<sub>x</sub> @ 3% O<sub>2</sub> (equivalent to 0.011 lb NO<sub>x</sub>/MMBtu), 46 ppmv CO @ 3% O<sub>2</sub> (equivalent to 0.034 lb CO/MMBtu), 0.013 lb PM<sub>10</sub>/MMBtu, 0.00285 lb SO<sub>x</sub>/MMBtu, or 0.003 lb VOC/MMBtu. [District Rules 2201, 4305, 4306 and 4351] Federally Enforceable Through Title V Permit
7. When firing on LPG, emissions from the boiler shall not exceed any of the following limits: 9 ppmv NO<sub>x</sub> @ 3% O<sub>2</sub> (equivalent to 0.011 lb NO<sub>x</sub>/MMBtu), 46 ppmv CO @ 3% O<sub>2</sub> (equivalent to 0.034 lb CO/MMBtu), 0.007 lb PM<sub>10</sub>/MMBtu, 0.017 lb SO<sub>x</sub>/MMBtu, or 0.003 lb VOC/MMBtu. [District Rules 2201, 4305, 4306 and 4351] Federally Enforceable Through Title V Permit
8. The sulfur content of the LPG fuel shall not exceed 15 grains per 100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit
9. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 4306 and 4351] Federally Enforceable Through Title V Permit
10. Source testing to measure NO<sub>x</sub> and CO emissions from this unit shall be conducted while fired on natural gas at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306, and 4351] 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.

11. Source testing to measure NO<sub>x</sub> and CO emissions from this unit shall be conducted while firing on LPG when LPG usage exceed 45,684 gallons (equivalent to 100 hours of operation at full fire) during the previous 12 months from the date of the proposed source test. After demonstrating compliance on two consecutive annual source tests when the unit is fired on LPG, the unit shall be tested not less than once every 36 months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emissions limits, the source testing frequency shall revert to at least once every 12 months. [District Rules 2201, 4102, 4305, 4306 and 4351] Federally Enforceable Through Title V Permit
12. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
13. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
14. NO<sub>x</sub> emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
15. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306 and 4351] Federally Enforceable Through Title V Permit
16. Stack gas oxygen (O<sub>2</sub>) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
17. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306, and 4351] Federally Enforceable Through Title V Permit
18. Operator shall ensure that all required source testing conforms to the compliance testing procedures described in District Rule 1081. [District Rule 1081] Federally Enforceable Through Title V Permit
19. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
20. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306 and 4351] Federally Enforceable Through Title V Permit
21. If either the NO<sub>x</sub> or CO concentrations corrected to 3% O<sub>2</sub>, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 4306 and 4351] Federally Enforceable Through Title V Permit
22. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306 and 4351] 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.

23. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 3% O<sub>2</sub>, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306 and 4351] Federally Enforceable Through Title V Permit
24. Operator shall record all dates on which the unit is fired on any fuel other than PUC-regulated natural gas. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
25. Operator shall maintain copies of fuel invoices and supplier certifications. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
26. Operator shall provide that fuel hhv be certified by third party fuel supplier or determined annually by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rules 2520, 9.3.2, 4305, 6.2.1, 4306, and 4351, 6.2.1] Federally Enforceable Through Title V Permit
27. Permittee shall keep daily and annual records of the amount of LPG fuel used, in gallons. [District Rules 2201, 4305, 4306 and 4351] Federally Enforceable Through Title V Permit
28. 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, 4305, 4306, 6.1 and 4351] Federally Enforceable Through Title V Permit

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

Facility Name: C W US INC (DBA MISSION BELL WINERY)

Location: 12667 ROAD 24, MADERA, CA 93637

C-628-13-3: May 5 2010 8:30AM - CTIBORD

## **APPENDIX II**

Draft ATC's

San Joaquin Valley  
Air Pollution Control District

**AUTHORITY TO CONSTRUCT**

**ISSUANCE DATE: DRAFT**

**PERMIT NO:** C-628-4-9

**LEGAL OWNER OR OPERATOR:** C W US INC (DBA MISSION BELL WINERY)

**MAILING ADDRESS:** PO BOX 99  
MADERA, CA 93639

**LOCATION:** 12667 ROAD 24  
MADERA, CA 93637

**EQUIPMENT DESCRIPTION:**

MODIFICATION OF NEBRASKA MODEL NS-F-81 NATURAL GAS OR LPG-FIRED BOILER (WEST) WITH A 97 MMBTU/HR ALZETA MODEL CSB-1210 ULTRA-LOW NOX BURNER: LOWER THE BOILER EMISSIONS LIMIT TO 7 PPM-NOX @ 3% O2 FOR COMPLIANCE WITH RULE 4320

**CONDITIONS**

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. The unit shall only be fired on PUC-regulated natural gas as the primary fuel and LPG as the backup fuel. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The sulfur content of the LPG backup fuel shall not exceed 15 grain per 100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit
5. When fired on natural gas, emissions rates from the unit shall not exceed any of the following limits: 7 ppmvd NOx @ 3% O2 or 0.011 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, 100 ppmvd CO @ 3% O2 or 0.074 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306, 5.1.1 and 4320, 5.2] Federally Enforceable Through Title V Permit
6. When fired on LPG as backup fuel, emissions rates from the unit shall not exceed any of the following limits: 7 ppmvd NOx @ 3% O2 or 0.011 lb-NOx/MMBtu, 0.0044 lb-PM10/MMBtu, 200 ppmvd CO @ 3% O2 or 0.148 lb-CO/MMBtu, 0.0055 lb-VOC/MMBtu, or 0.017 lb-SOx/MMBtu. [District Rules 2201, 4305, 4306, 5.1.1 and 4320, 5.2] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

**YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (559) 230-5950 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT.** This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director APCO

**DRAFT**

DAVID WARNER, Director of Permit Services

C-628-4-9 : May 12 2010 1:34PM - CTIBORD : Joint Inspection NOT Required

7. The unit shall be fired on LPG as backup fuel only during natural gas curtailment for no more than 168 cumulative hours in a calendar year plus 48 hours per calendar year for equipment testing. [District Rules 2201, 4305 and 4306, 4.2.1] Federally Enforceable Through Title V Permit
8. If the unit is fired on LPG as backup fuel for a period exceeding 48 cumulative hours in a calendar year, the permittee shall monitor and record the stack concentration of NOx at least once during that year using an APCO approved portable NOx analyzer. Monitoring for backup fuel NOx emissions shall not be required when the unit is operating on primary fuel, i.e. the unit need not be fired on backup fuel solely to perform monitoring. [District Rules 4305 and 4306, 4.2.1] Federally Enforceable Through Title V Permit
9. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305 and 4306, 5.5.2] Federally Enforceable Through Title V Permit
10. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305 and 4306, 6.3.1] Federally Enforceable Through Title V Permit
11. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.1.1 and 4320, 5.8] Federally Enforceable Through Title V Permit
12. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
13. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305 and 4306, 6.2.2 and 6.2.5] Federally Enforceable Through Title V Permit
14. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306, 6.2.3 and 4320, 5.8] Federally Enforceable Through Title V Permit
15. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305 and 4306, 6.2.4 and 4320, 6.2] Federally Enforceable Through Title V Permit
16. Fuel hhv for source test purposes shall be certified by a third party fuel supplier or determined using ASTM D 1826 or D1945 in conjunction with ASTM D 3588 for gaseous fuels or ASTM D 240 or D 2382 for liquid hydrocarbon fuels. [District Rules 4305, 6.2.1 and 4306, 6.2.1] Federally Enforceable Through Title V Permit
17. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306, 5.5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit
18. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
19. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306, 5.4.2] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

20. If either the NO<sub>x</sub> or CO concentrations corrected to 3% O<sub>2</sub>, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 4306, 5.4.2 and 4320, 5.8] Federally Enforceable Through Title V Permit
21. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305 and 4306, 5.4.2, 5.4.4 and 4320, 5.7] Federally Enforceable Through Title V Permit
22. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 3% O<sub>2</sub>, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, 5.4 and 4320, 6.1] Federally Enforceable Through Title V Permit
23. Daily and annual records of backup LPG consumption consisting of the date the boiler operated on LPG and the amount of time the boiler was operated, in hours, on LPG shall be maintained. [District Rules 2201, 4305, and 4306, 6.1.1] Federally Enforceable Through Title V Permit
24. Permittee shall record the monthly fuel consumption. [District Rule 1070 and 2520, 9.3.2] Federally Enforceable Through Title V Permit
25. Operator shall maintain copies of LPG fuel invoices. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
26. The requirements of 40 CFR 72.6(b) are not applicable because this is not an affected unit under the acid rain provisions. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
27. 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, 4305, 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit
28. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
29. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
30. The unit shall only be fired on PUC-regulated natural gas. [District Rule 2201 and 4320, 6.1] Federally Enforceable Through Title V Permit
31. Emissions from the natural gas-fired unit shall not exceed any of the following limits: 7 ppmvd NO<sub>x</sub> @ 3% O<sub>2</sub> or 0.008 lb-NO<sub>x</sub>/MMBtu, 0.00285 lb-SO<sub>x</sub>/MMBtu, 0.0076 lb-PM<sub>10</sub>/MMBtu, 100 ppmvd CO @ 3% O<sub>2</sub> or 0.074 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

32. The permittee shall monitor and record the stack concentration of NOX, CO, and O2 at least once every month (in which a source test is not performed) using a portable analyzer that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
33. If either the NOX or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
34. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
35. The permittee shall maintain records of: (1) the date and time of NOX, CO, and O2 measurements, (2) the O2 concentration in percent by volume and the measured NOX and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
36. Source testing to measure NOx and CO emissions from this unit while fired on natural gas shall be conducted within 60 days of initial start-up. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
37. Source testing to measure NOx and CO emissions from this unit while fired on natural gas shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
38. 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] Federally Enforceable Through Title V Permit
39. 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

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San Joaquin Valley  
Air Pollution Control District

**AUTHORITY TO CONSTRUCT**

**ISSUANCE DATE: DRAFT**

**PERMIT NO:** C-628-5-9

**LEGAL OWNER OR OPERATOR:** C W US INC (DBA MISSION BELL WINERY)

**MAILING ADDRESS:** PO BOX 99  
MADERA, CA 93639

**LOCATION:** 12667 ROAD 24  
MADERA, CA 93637

**EQUIPMENT DESCRIPTION:**

MODIFICATION OF NEBRASKA MODEL NS-F-81 NATURAL GAS OR LPG-FIRED BOILER (EAST) WITH A 97 MMBTU/HR ALZETA MODEL CSB-1210 ULTRA-LOW NOX BURNER: LOWER THE BOILER EMISSIONS LIMIT TO 7 PPM-NOX @ 3% O2 FOR COMPLIANCE WITH RULE 4320

**CONDITIONS**

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. The unit shall only be fired on PUC-regulated natural gas as the primary fuel and LPG as the backup fuel. [District Rule 2201 and 4320, 5.4] Federally Enforceable Through Title V Permit
4. The sulfur content of the LPG backup fuel shall not exceed 15 grain per 100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit
5. When fired on natural gas, emissions rates from the unit shall not exceed any of the following limits: 7 ppmvd NOx @ 3% O2 or 0.011 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, 100 ppmvd CO @ 3% O2 or 0.074 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306, 5.1.1 and 4320, 5.2] Federally Enforceable Through Title V Permit
6. When fired on LPG as backup fuel, emissions rates from the unit shall not exceed any of the following limits: 7 ppmvd NOx @ 3% O2 or 0.011 lb-NOx/MMBtu, 0.0044 lb-PM10/MMBtu, 200 ppmvd CO @ 3% O2 or 0.148 lb-CO/MMBtu, 0.0055 lb-VOC/MMBtu, or 0.017 lb-SOx/MMBtu. [District Rules 2201, 4305, 4306, 5.1.1 and 4320, 5.2] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

**YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (559) 230-5950 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT.** This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director APCO

**DRAFT**

DAVID WARNER, Director of Permit Services

C-628-5-9 : May 13 2010 10:07AM - CTIBORD : Joint Inspection NOT Required

7. The unit shall be fired on LPG as backup fuel only during natural gas curtailment for no more than 168 cumulative hours in a calendar year plus 48 hours per calendar year for equipment testing. [District Rules 2201, 4305 and 4306, 4.2.1] Federally Enforceable Through Title V Permit
8. If the unit is fired on LPG as backup fuel for a period exceeding 48 cumulative hours in a calendar year, the permittee shall monitor and record the stack concentration of NOx at least once during that year using an APCO approved portable NOx analyzer. Monitoring for backup fuel NOx emissions shall not be required when the unit is operating on primary fuel, i.e. the unit need not be fired on backup fuel solely to perform monitoring. [District Rules 4305 and 4306, 4.2.1] Federally Enforceable Through Title V Permit
9. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305 and 4306, 5.5.2] Federally Enforceable Through Title V Permit
10. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305 and 4306, 6.3.1] Federally Enforceable Through Title V Permit
11. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, 5.5.1 and 4320, 5.8] Federally Enforceable Through Title V Permit
12. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
13. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305 and 4306, 6.2.2 and 6.2.5] Federally Enforceable Through Title V Permit
14. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306, 6.2.3 and 4320, 5.8] Federally Enforceable Through Title V Permit
15. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305 and 4306, 6.2.4 and 4320, 6.2] Federally Enforceable Through Title V Permit
16. Fuel hhv for source test purposes shall be certified by a third party fuel supplier or determined using ASTM D 1826 or D1945 in conjunction with ASTM D 3588 for gaseous fuels or ASTM D 240 or D 2382 for liquid hydrocarbon fuels. [District Rules 4305, 6.2.1 and 4306, 6.2.1] Federally Enforceable Through Title V Permit
17. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306, 5.5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit
18. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
19. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306, 5.4.2] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

20. If either the NO<sub>x</sub> or CO concentrations corrected to 3% O<sub>2</sub>, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 4306, 5.4.2 and 4320, 5.8] Federally Enforceable Through Title V Permit
21. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, 5.4.2, 5.4.4 and 4320, 5.7] Federally Enforceable Through Title V Permit
22. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 3% O<sub>2</sub>, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, 5.4 and 4320, 6.1] Federally Enforceable Through Title V Permit
23. Daily and annual records of backup LPG consumption consisting of the date the boiler operated on LPG and the amount of time the boiler was operated, in hours, on LPG shall be maintained. [District Rules 2201, 4305, and 4306, 6.1.1] Federally Enforceable Through Title V Permit
24. Permittee shall record the monthly fuel consumption. [District Rule 1070 and 2520, 9.3.2] Federally Enforceable Through Title V Permit
25. Operator shall maintain copies of LPG fuel invoices. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
26. The requirements of 40 CFR 72.6(b) are not applicable because this is not an affected unit under the acid rain provisions. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
27. 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, 4305, 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit
28. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
29. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
30. The unit shall only be fired on PUC-regulated natural gas. [District Rule 2201 and 4320, 5.4] Federally Enforceable Through Title V Permit
31. Emissions from the natural gas-fired unit shall not exceed any of the following limits: 7 ppmvd NO<sub>x</sub> @ 3% O<sub>2</sub> or 0.008 lb-NO<sub>x</sub>/MMBtu, 0.00285 lb-SO<sub>x</sub>/MMBtu, 0.0076 lb-PM<sub>10</sub>/MMBtu, 100 ppmvd CO @ 3% O<sub>2</sub> or 0.074 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

32. The permittee shall monitor and record the stack concentration of NOX, CO, and O2 at least once every month (in which a source test is not performed) using a portable analyzer that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
33. If either the NOX or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
34. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
35. The permittee shall maintain records of: (1) the date and time of NOX, CO, and O2 measurements, (2) the O2 concentration in percent by volume and the measured NOX and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
36. Source testing to measure NOx and CO emissions from this unit while fired on natural gas shall be conducted within 60 days of initial start-up. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
37. Source testing to measure NOx and CO emissions from this unit while fired on natural gas shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
38. 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] Federally Enforceable Through Title V Permit
39. 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

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San Joaquin Valley  
Air Pollution Control District

**AUTHORITY TO CONSTRUCT**

**ISSUANCE DATE: DRAFT**

**PERMIT NO:** C-628-13-5

**LEGAL OWNER OR OPERATOR:** C W US INC (DBA MISSION BELL WINERY)

**MAILING ADDRESS:** PO BOX 99  
MADERA, CA 93639

**LOCATION:** 12667 ROAD 24  
MADERA, CA 93637

**EQUIPMENT DESCRIPTION:**

MODIFICATION OF 43.4 MMBTU/HR NEBRASKA MODEL NS-C-42-ECON NATURAL GAS-FIRED BOILER, EQUIPPED WITH AN ALZETA ULTRA-LOW NOX BURNER WITH A VARIABLE FREQUENCY DRIVE FOR AIR INTAKE FAN MOTOR AND OXYGEN TRIM EQUIPMENT IN EXHAUST STACK: LOWER THE BOILER EMISSIONS LIMIT TO 7 PPM-NOX @ 3% O2 FOR COMPLIANCE WITH RULE 4320

**CONDITIONS**

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. The unit shall only be fired on PUC-regulated natural gas as the primary fuel and LPG as the backup fuel. [District Rule 2201 and 4320, 5.4] Federally Enforceable Through Title V Permit
4. The sulfur content of the LPG backup fuel shall not exceed 15 grain per 100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit
5. When fired on natural gas, emissions rates from the unit shall not exceed any of the following limits: 7 ppmvd NOx @ 3% O2 or 0.011 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, 100 ppmvd CO @ 3% O2 or 0.074 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306, 5.1.1 and 4320, 5.2] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

**YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (559) 230-5950 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

DAVID WARNER, Director of Permit Services

C-628-13-5 : May 13 2010 10:08AM - CTIBORD : Joint Inspection NOT Required

6. When fired on LPG as backup fuel, emissions rates from the unit shall not exceed any of the following limits: 7 ppmvd NO<sub>x</sub> @ 3% O<sub>2</sub> or 0.011 lb-NO<sub>x</sub>/MMBtu, 0.0044 lb-PM<sub>10</sub>/MMBtu, 200 ppmvd CO @ 3% O<sub>2</sub> or 0.148 lb-CO/MMBtu, 0.0055 lb-VOC/MMBtu, or 0.017 lb-SO<sub>x</sub>/MMBtu. [District Rules 2201, 4305, 4306, 5.1.1 and 4320, 5.2] Federally Enforceable Through Title V Permit
7. The unit shall be fired on LPG as backup fuel only during natural gas curtailment for no more than 168 cumulative hours in a calendar year plus 48 hours per calendar year for equipment testing. [District Rules 2201, 4305 and 4306, 4.2.1] Federally Enforceable Through Title V Permit
8. If the unit is fired on LPG as backup fuel for a period exceeding 48 cumulative hours in a calendar year, the permittee shall monitor and record the stack concentration of NO<sub>x</sub> at least once during that year using an APCO approved portable NO<sub>x</sub> analyzer. Monitoring for backup fuel NO<sub>x</sub> emissions shall not be required when the unit is operating on primary fuel, i.e. the unit need not be fired on backup fuel solely to perform monitoring. [District Rules 4305 and 4306, 4.2.1] Federally Enforceable Through Title V Permit
9. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305 and 4306, 5.5.2] Federally Enforceable Through Title V Permit
10. Source testing to measure natural gas-combustion NO<sub>x</sub> and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305 and 4306, 6.3.1] Federally Enforceable Through Title V Permit
11. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, 5.5.1 and 4320, 5.8] Federally Enforceable Through Title V Permit
12. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
13. NO<sub>x</sub> emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305 and 4306, 6.2.2 and 6.2.5] Federally Enforceable Through Title V Permit
14. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306, 6.2.3 and 4320, 5.8] Federally Enforceable Through Title V Permit
15. Stack gas oxygen (O<sub>2</sub>) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306, 6.2.4 and 4320, 6.2] Federally Enforceable Through Title V Permit
16. Fuel hhv for source test purposes shall be certified by a third party fuel supplier or determined using ASTM D 1826 or D-1945 in conjunction with ASTM D 3588 for gaseous fuels or ASTM D 240 or D 2382 for liquid hydrocarbon fuels. [District Rules 4305, 6.2.1 and 4306, 6.2.1] Federally Enforceable Through Title V Permit
17. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306, 5.5.5 and 4320, 5.8] Federally Enforceable Through Title V Permit
18. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
19. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305 and 4306, 5.4.2] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

20. If either the NO<sub>x</sub> or CO concentrations corrected to 3% O<sub>2</sub>, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 4305, 4306, 5.4.2 and 4320, 5.8] Federally Enforceable Through Title V Permit
21. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, 5.4.2, 5.4.4 and 4320, 5.7] Federally Enforceable Through Title V Permit
22. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 3% O<sub>2</sub>, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, 5.4 and 4320, 6.1] Federally Enforceable Through Title V Permit
23. Daily and annual records of backup LPG consumption consisting of the date the boiler operated on LPG and the amount of time the boiler was operated, in hours, on LPG shall be maintained. [District Rules 2201, 4305, and 4306, 6.1.1] Federally Enforceable Through Title V Permit
24. Permittee shall record the monthly fuel consumption. [District Rule 1070 and 2520, 9.3.2] Federally Enforceable Through Title V Permit
25. Operator shall maintain copies of LPG fuel invoices. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
26. The requirements of 40 CFR 72.6(b) are not applicable because this is not an affected unit under the acid rain provisions. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
27. 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, 4305, 4306, 6.1 and 4320, 6.1] Federally Enforceable Through Title V Permit
28. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
29. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
30. The unit shall only be fired on PUC-regulated natural gas. [District Rule 2201 and 4320, 5.4] Federally Enforceable Through Title V Permit
31. Emissions from the natural gas-fired unit shall not exceed any of the following limits: 7 ppmvd NO<sub>x</sub> @ 3% O<sub>2</sub> or 0.008 lb-NO<sub>x</sub>/MMBtu, 0.00285 lb-SO<sub>x</sub>/MMBtu, 0.013 lb-PM<sub>10</sub>/MMBtu, 46 ppmvd CO @ 3% O<sub>2</sub> or 0.034 lb-CO/MMBtu, or 0.0030 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

32. The permittee shall monitor and record the stack concentration of NOX, CO, and O2 at least once every month (in which a source test is not performed) using a portable analyzer that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
33. If either the NOX or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
34. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
35. The permittee shall maintain records of: (1) the date and time of NOX, CO, and O2 measurements, (2) the O2 concentration in percent by volume and the measured NOX and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
36. Source testing to measure NOx and CO emissions from this unit while fired on natural gas shall be conducted within 60 days of initial start-up. [District Rules 2201, 4305, and 4306] Federally Enforceable Through Title V Permit
37. Source testing to measure NOx and CO emissions from this unit while fired on natural gas shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
38. 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] Federally Enforceable Through Title V Permit
39. 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

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## **APPENDIX III**

### **Emissions Profiles**

Permit #: C-628-4-9	Last Updated
Facility: C W US INC (DBA MISSION BELL WINERY)	05/05/2010 CTIBORD

Equipment Pre-Baselined: NO

	<u>NOX</u>	<u>SOX</u>	<u>PM10</u>	<u>CO</u>	<u>VOC</u>
Potential to Emit (lb/Yr):	6798.0	2422.0	6458.0	62879.0	4673.0
Daily Emis. Limit (lb/Day)	18.6	6.6	17.7	172.3	12.8
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	-637.0	0.0	0.0	0.0	0.0
Q2:	-637.0	0.0	0.0	0.0	0.0
Q3:	-637.0	0.0	0.0	0.0	0.0
Q4:	-638.0	0.0	0.0	0.0	0.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

Permit #: C-628-5-9	<b>Last Updated</b>
Facility: C W US INC (DBA MISSION BELL WINERY)	05/05/2010 CTIBORD

Equipment Pre-Baselined: NO

	<u>NOX</u>	<u>SOX</u>	<u>PM10</u>	<u>CO</u>	<u>VOC</u>
Potential to Emit (lb/Yr):	6798.0	2422.0	6458.0	62879.0	4673.0
Daily Emis. Limit (lb/Day)	18.6	6.6	17.7	172.3	12.8
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	-637.0	0.0	0.0	0.0	0.0
Q2:	-637.0	0.0	0.0	0.0	0.0
Q3:	-637.0	0.0	0.0	0.0	0.0
Q4:	-638.0	0.0	0.0	0.0	0.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

Permit #: C-628-13-5	Last Updated
Facility: C W US INC (DBA MISSION BELL WINERY)	05/05/2010 CTIBORD

Equipment Pre-Baselined: NO

	<u>NOX</u>	<u>SOX</u>	<u>PM10</u>	<u>CO</u>	<u>VOC</u>
Potential to Emit (lb/Yr):	3041.0	1084.0	4942.0	12926.0	1141.0
Daily Emis. Limit (lb/Day)	8.3	3.0	13.5	35.4	3.1
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	-285.0	0.0	0.0	0.0	0.0
Q2:	-285.0	0.0	0.0	0.0	0.0
Q3:	-285.0	0.0	0.0	0.0	0.0
Q4:	-286.0	0.0	0.0	0.0	0.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					