San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

January 4, 2023

Mr. Erik Ettner
O'Neill Beverages Co LLC
8418 S Lac Jac Ave
Parlier, CA 93648

Re: Proposed ATC / Certificate of Conformity (Significant Mod)
Facility Number: C-629
Project Number: C-1221149

Dear Mr. Ettner:

Enclosed for your review is the District's analysis of an application for Authority to Construct for the facility identified above. You requested that a Certificate of Conformity with the procedural requirements of 40 CFR Part 70 be issued with this project. The facility has proposed to modify an existing 42.5 MMBtu/hr natural gas-fired boiler (permit unit C-629-2-12) to tune the existing Clever Brooks/Industrial Combustion Model LNXLG-504 SZ-1 low NO_X burner and Selective Catalytic Reduction (SCR) system in order to meet the 2.5 ppmv NO_X emission limit of District Rule 4320.

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

Thank you for your cooperation in this matter. If you have any questions, please contact Mr. Nick Peirce, Permit Services Manager, at (209) 557-6400.

Sincerely,

Brian Clements
Director of Permit Services

Enclosures

cc: Courtney Graham, CARB (w/enclosure) via email
cc: Gerardo Rios, EPA (w/enclosure) via EPS

Samir Sheikh
Executive Director/Air Pollution Control Officer

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www.valleyair.org www.healthyairliving.com

San Joaquin Valley Air Pollution Control District

Authority to Construct Application Review

Modification of Natural Gas-Fired Boiler for Rule 4320 Compliance

Facility Name:	O'Neill Beverages Co LLC	Date:	January 3, 2023
Mailing Address:	8418 S Lac Jac Ave Parlier, CA 93648	Engineer:	Christian Bisher
		Lead Engineer:	Dustin Brown
Contact Person:	Erik Ettner		
Telephone:	(559) 638-3544		
E-Mail:	erik.ettner@oneillwine.com		
Application #:	C-629-2-13		
Project #:	C-1221149		
Deemed Complete:	June 16, 2022		

I. Proposal

The primary business of O'Neill Beverages Co LLC is the production of wine products and distilled alcoholic beverages (spirits). O'Neill Beverages has submitted an Authority to Construct (ATC) application for the following:

- Modify an existing 42.5 MMBtu/hr Babcock and Wilcox natural gas-fired boiler (existing Permit to Operate (PTO) C-629-2-13 included in Appendix B) equipped with a Clever Brooks/Industrial Combustion Model LNXLG-504 SZ-1 low NO_X burner. The facility is proposing to tune the existing burner and Selective Catalytic Reduction (SCR) system to lower the NOx emissions from 5 ppmvd at 3% O_2 to 2.5 ppmvd at 3% O_2 for compliance with the Tier 2 NOx requirements of District Rule 4320.

These modifications are proposed solely to comply with District Rule 4320 requirements, and there will not be an increase in potential emissions of any pollutant as a result of this project. Since there is a change to the method of operation of the unit, these changes are modifications pursuant to District Rule 2201, *New and Modified Stationary Source Review Rule*.

O'Neill Beverage Co LLC received their Title V Permit on July 31, 2010. This modification can be classified as a Title V significant modification pursuant to Rule 2520, and can be processed with a Certificate of Conformity (COC). Since the facility has specifically requested that this project be processed in that manner, the 45-day EPA comment period will be satisfied prior to the issuance of the ATC. O'Neill Beverage Co LLC must apply to administratively amend their Title V permit.

A copy of the draft ATC is included in Appendix A.

II. Applicable Rules

Rule 2201	New and Modified Stationary Source Review Rule (8/15/19)
Rule 2410	Prevention of Significant Deterioration (6/16/11)
Rule 2520	Federally Mandated Operating Permits (8/15/19)
Rule 4001	New Source Performance Standards (4/14/99)
Rule 4002	National Emissions Standards for Hazardous Air Pollutants (5/20/04)
Rule 4101	Visible Emissions (2/17/05)
Rule 4102	Nuisance (12/17/92)
Rule 4201	Particulate Matter Concentration (12/17/92)
Rule 4301	Fuel Burning Equipment (12/17/92)
Rule 4305	Boilers, Steam Generators, and Process Heaters – Phase 2 (8/21/03)
Rule 4306	Boilers, Steam Generators, and Process Heaters – Phase 3 (12/17/20)
Rule 4320	Advanced Emission Reduction Options for Boilers, Steam Generators, and Process Heaters Greater than 5.0 MMBtu/hr (12/17/20)
Rule 4351	Boilers, Steam Generators and Process Heaters – Phase 1 (8/21/03)
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

The facility is located at 8418 S Lac Jac in Parlier, CA. The equipment is located within 1,000 feet of the outer boundary of a K-12 school. However, the proposed modification does not result in an increase in Hazardous Air Pollutant (HAP) emissions. Therefore, in accordance with the California Health and Safety Code, Section 42301.6, a school notice is not required.

IV. Process Description

O'Neill Beverages produces both red and white table wines, as well as other specialty wine products, from the fermentation of grapes. The 42.5 MMBtu/hr boiler under this permit unit is used to produce steam that is used in the wine making process. The facility is tuning the burner and SCR system, and there will be no changes in wine production or method of operation as a result of the changes proposed in this project.

V. Equipment Listing

Pre-Project Equipment Description:

C-529-2-12: 42.5 MMBTU/HR BABCOCK AND WILCOX NATURAL GAS-FIRED BOILER (SERIAL #NB21232) WITH A CLEAVER BROOKS/INDUSTRIAL COMBUSTION MODEL LNXLG-504 SZ-1 LOW NOX BURNER, INDUCED FLUE GAS RECIRCULATION, AND SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM

Proposed Modification:

The applicant is proposing to tune their existing boiler in order to comply with the Rule 4320 Table 2: Tier 2 NO_X emission limit of 2.5 ppmv @ 3% O_2 (equivalent to 0.003 lb/MMBtu).

C-629-2-13: MODIFICATION OF A 42.5 MMBTU/HR BABCOCK AND WILCOX NATURAL GAS-FIRED BOILER (SERIAL #NB21232) WITH A CLEAVER BROOKS/INDUSTRIAL COMBUSTION MODEL LNXLG-504 SZ-1 LOW NOX BURNER, INDUCED FLUE GAS RECIRCULATION, AND SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM: TUNE BOILER TO ACHIEVE 2.5 PPMV NOX @ 3% O2 FOR COMPLIANCE WITH RULE 4320

Post-Project Equipment Description:

C-629-2-13: 42.5 MMBTU/HR BABCOCK AND WILCOX NATURAL GAS-FIRED BOILER (SERIAL #NB21232) WITH A CLEAVER BROOKS/INDUSTRIAL COMBUSTION MODEL LNXLG-504 SZ-1 LOW NOX BURNER, INDUCED FLUE GAS RECIRCULATION, AND SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM

VI. Emission Control Technology Evaluation

Emissions from natural gas-fired boilers include NO_X, CO, VOC, PM_{10}, and SO_X.

NO_X is the major pollutant of concern when burning natural gas. NO_X formation is either due to thermal fixation of atmospheric nitrogen in the combustion air (thermal NO_X) or due to conversion of chemically bound nitrogen in the fuel (fuel NO_X). Due to the low fuel nitrogen content of natural gas, nearly all NO_X emissions are thermal NO_X. Formation of thermal NO_X is affected by four furnace zone factors: (1) nitrogen concentration, (2) oxygen concentration, (3) peak temperature, and (4) time of exposure at peak temperature.

The boiler will be equipped with an ultra-low NO_X burner. An ultra-low NOx burner reduces NO_X 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 ultra-low NO_X 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_X. 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.

SCR utilizes a catalytic bed and a reducing agent, usually ammonia, to convert nitrogen oxides (NOx) to nitrogen. The ammonia is injected into the exhaust system upstream of a catalyst, which creates a reducing atmosphere. The exhaust stream then passes through a catalyst, which promotes the reduction reaction. The reduction reaction results in NOx being converted to nitrogen. SCR systems provide approximately 95% NOx control.

The applicant is also proposing to fire the boiler on PUC-regulated natural gas to comply with the PM_{10} and SO_X requirements of Rule 4320.

VII. General Calculations

A. Assumptions

- The maximum operating schedule is 24 hr/day and 8,760 hr/year (worst-case assumption).
- The maximum daily duration for start-up is two hours and the maximum daily duration for shutdown is two hours. Thus, the total duration of startups and shutdown is 4 hours per day (per current permit) with no proposed changes.
- The unit is fired solely on PUC-quality natural gas.
- Natural Gas Heating Value: 1,000 Btu/scf (District Practice)
- EPA F-Factor for Natural Gas (O_2-based): 8,578 dscf/MMBtu corrected to 60°F (40 CFR 60, Appendix B)
- To streamline emission calculations, $PM_{2.5}$ emissions are assumed to be equal to PM_{10} emissions. Only if needed to determine if a project is a Federal major modification for $PM_{2.5}$ will specific $PM_{2.5}$ emission calculations be performed.

B. Emission Factors

The pre-project emission factors were taken from the current PTO and are listed in the table below.

Pre-Project (EF1):

Emission Factors for Startup and Shutdown			
Pollutant	**Emission Factor (ppmv @ 3%O_2)**	**Emission Factor (lb/MMBtu)**	**Source**
NO_X	80	0.0971	Current Permit
SO_X	---	0.00285	Current Permit
PM_{10}	---	0.003	Current Permit
CO	200	0.146	Current Permit
VOC	---	0.0055	Current Permit
NH_3	10	0.0045[1]	Current Permit

1. Conversion from 10 ppmv to 0.0045 lb/MMBtu shown in Appendix H.

Emission Factors for Steady State			
Pollutant	**Emission Factor (ppmv @ 3%O_2)**	**Emission Factor (lb/MMBtu)**	**Source**
NO_X	5	0.0062	Current Permit
SO_X		0.00285	Current Permit
PM_{10}		0.003	Current Permit
CO	200	0.146	Current Permit
VOC		0.0055	Current Permit
NH_3	10	0.0045[1]	Current Permit

1. Conversion from 10 ppmv to 0.0045 lb/MMBtu shown in Appendix H.

Post-Project (EF2):

As summarized above, the applicant is proposing to tune the burner of this existing boiler and the SCR system to achieve a steady state NOx emission limit that complies with the Tier 2 NOx emission requirement of Rule 4320. They are not proposing any other changes to the boiler or the existing emission factors. Therefore, the post project emissions factors for all other pollutants will be set equal to the pre-project emission factors referenced above.

Emission Factors for Startup and Shutdown			
Pollutant	**Emission Factor (ppmv @ 3%O_2)**	**Emission Factor (lb/MMBtu)**	**Source**
NO_X	80	0.0971	Current Permit
SO_X	---	0.00285	Current Permit
PM_{10}	---	0.003	Current Permit
CO	200	0.146	Current Permit
VOC	---	0.0055	Current Permit
NH_3	10	0.0045[1]	Current Permit

1. Conversion from 10 ppmv to 0.0045 lb/MMBtu shown in Appendix H.

Emission Factors for Steady State			
Pollutant	**Emission Factor (ppmv @ 3%O_2)**	**Emission Factor (lb/MMBtu)**	**Source**
NO_X	2.5	0.003	Applicant Proposed
SO_X		0.00285	Current Permit
PM_{10}		0.003	Current Permit
CO	200	0.146	Current Permit
VOC		0.0055	Current Permit
NH_3	10	0.0045[1]	Current Permit

1. Conversion from 10 ppmv to 0.0045 lb/MMBtu shown in Appendix H.

C. Calculations

1. Pre-Project Potential to Emit (PE1)

Start-up and Shutdown Emissions:

Per the current permit, the duration of start-up or shutdown shall not exceed two hours each per occurrence and a total of four hours per day.

The following equations are used to calculate daily and annual pre-project potential to emit (PE1) for startup and shutdown:

Daily PE1 = (EF1, lb/MMBtu) x (Burner Heat Rating) x (Operating Time)
= (EF1, lb/MMBtu) x (42.5 MMBtu/hr) x (4 hr/day)

Annual PE1 = (EF1, lb/MMBtu) x (42.5 MMBtu/hr) x (4 hr/day) x (365 day/year)

The following table summarizes the daily and annual start-up and shutdown PE1 calculations for this unit.

Pre-Project Potential to Emit (PE1) – Startup/Shutdown Emissions			
Pollutant	EF1 (lb/MMBtu)	Daily PE1 (lb/day)	Annual PE1 (lb/year)
NO_X	0.0971	16.5	6,025
SO_X	0.00285	0.5	177
PM_{10}	0.003	0.5	186
CO	0.146	24.8	9,059
VOC	0.0055	0.9	341
NH_3	0.0045	0.8	279

Steady State Emissions:

The duration of steady state emissions shall be the remainder of the day (20 hours) since steady state emission factors are less than or equal to start-up and shutdown emission factors.

The following equations are used to calculate daily and annual pre-project potential to emit (PE1) for steady state operation:

Daily PE1 = (EF1, lb/MMBtu) x (Burner Heat Rating) x (Operating Time)
= (EF1, lb/MMBtu) x (42.5 MMBtu/hr) x (20 hr/day)

Annual PE1 = (EF1, lb/MMBtu) x (42.5 MMBtu/hr) x (20 hr/day) x (365 day/year)

The following table summarizes the daily and annual steady state PE1 calculations for this unit.

Pre-Project Potential to Emit (PE1) – Steady State Emissions			
Pollutant	EF1 (lb/MMBtu)	Daily PE1 (lb/day)	Annual PE1 (lb/year)
NO_X	0.0062	5.3	1,924
SO_X	0.00285	2.4	884
PM_{10}	0.003	2.6	931
CO	0.146	124.1	45,297
VOC	0.0055	4.7	1,706
NH_3	0.0045	3.8	1,396

Overall Emissions:

The following equation is used to calculate the total daily and annual pre-project potential to emit (PE1):

PE1 = PE1 Start-up/Shutdown + PE1 Steady State

The following table summarizes the total daily and annual PE1 calculations for this unit.

Pre-Project Potential to Emit (PE1)		
Pollutant	Daily PE1 (lb/day)	Annual PE1 (lb/yr)
NO_X	21.8	7,949
SO_X	2.9	1,061
PM_{10}	3.1	1,117
CO	148.9	54,356
VOC	5.6	2,047
NH_3	4.6	1,675

2. Post-Project Potential to Emit (PE2)

Start-up and Shutdown Emissions:

Per the current permit, the duration of start-up or shutdown shall not exceed two hours each per occurrence.

The following equations are used to calculate daily and annual post-project potential to emit (PE2) for startup and shutdown:

Daily PE2 = (EF2, lb/MMBtu) x (Burner Heat Rating) x (Operating Time)
= (EF2, lb/MMBtu) x (42.5 MMBtu/hr) x (4 hr/day)

Annual PE2 = (EF2, lb/MMBtu) x (42.5 MMBtu/hr) x (4 hr/day) x (365 day/year)

The following table summarizes the daily and annual start-up and shutdown PE2 calculations for this unit.

Post-Project Potential to Emit (PE2) – Startup/Shutdown Emissions			
Pollutant	EF2 (lb/MMBtu)	Daily PE2 (lb/day)	Annual PE2 (lb/year)
NO_X	0.0971	16.5	6,025
SO_X	0.00285	0.5	177
PM_{10}	0.003	0.5	186
CO	0.146	24.8	9,059
VOC	0.0055	0.9	341
NH_3	0.0045	0.8	279

Steady State Emissions:

The duration of steady state emissions shall be the remainder of the day (20 hours) since steady state emission factors are less than or equal to start-up and shutdown emission factors.

The following equations are used to calculate daily and annual post-project potential to emit (PE2) for steady state operation:

Daily PE2 = (EF2, lb/MMBtu) x (Burner Heat Rating) x (Operating Time)
= (EF2, lb/MMBtu) x (42.5 MMBtu/hr) x (20 hr/day)

Annual PE2 = (EF2, lb/MMBtu) x (42.5 MMBtu/hr) x (20 hr/day) x (365 day/year)

The following table summarizes the daily and annual steady state post-project PE2 calculations for this unit.

Post-Project Potential to Emit (PE2) – Steady State Emissions			
Pollutant	EF2 (lb/MMBtu)	Daily PE2 (lb/day)	Annual PE2 (lb/year)
NO_X	0.003	2.6	931
SO_X	0.00285	2.4	884
PM_{10}	0.003	2.6	931
CO	0.146	124.1	45,297
VOC	0.0055	4.7	1,706
NH_3	0.0045	3.8	1,396

Overall Emissions:

The following equation is used to calculate the total daily and annual post-project potential to emit (PE2):

PE2 = PE2 Start-up/Shutdown + PE2 Steady State

The following table summarizes the total daily and annual PE2 calculations for this unit.

Post-Project Potential to Emit (PE2)		
Pollutant	Daily PE2 (lb/day)	Annual PE2 (lb/yr)
NO_X	19.1	6,956
SO_X	2.9	1,061
PM_{10}	3.1	1,117
CO	148.9	54,356
VOC	5.6	2,047
NH_3	4.6	1,675

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

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

As shown above, the proposed modification does not result in an increase in potential emissions for any criteria pollutant. Therefore, new SSPE1 calculations are not required and will not be performed as a part of this evaluation. The table below summarizes the last SSPE calculations performed for this facility under special project N-1220151.

SSPE1 (lb/year)					
Permit Unit	**NO_X**	**SO_X**	**PM_{10}**	**CO**	**VOC**
SSPE1	**14,837**	**1,743**	**1,499**	**57,642**	**515,247**

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

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

As discussed above, the only expected change in emissions from this facility are from the proposed modifications to the existing boiler. The SSPE2 is summarized in the table below

SSPE2 (lb/year)					
Permit Unit	**NO_X**	**SO_X**	**PM_{10}**	**CO**	**VOC**
SSPE1	**14,837**	**1,743**	**1,499**	**57,642**	**515,247**
C-629-2-12 (current PTO)	-7,949	-1,061	-1,117	-54,356	-2,047
C-629-2-13 (new ATC)	6,956	1,061	1,117	54,356	2,047
SSPE2	**13,844**	**1,743**	**1,499**	**57,642**	**515,247**

5. Major Source Determination

Rule 2201 Major Source Determination:

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

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

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

Rule 2410 Major Source Determination:

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

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

PSD Major Source Determination (tons/year)						
	NO_2	VOC	SO_2	CO	PM	PM_{10}
Estimated Facility PE before Project Increase	7	258	1	29	1	1
PSD Major Source Thresholds	250	250	250	250	250	250
PSD Major Source?	No	Yes	No	No	No	No

6. Baseline Emissions (BE)

The BE calculation is performed on a pollutant-by-pollutant basis to determine the amount of offsets required. As will be discussed below, this project is exempt from offsets pursuant to Rule 2201, Section 4.6.8. Therefore, BE calculations are not required and will not be performed as a part of this project.

7. SB 288 Major Modification

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

As shown above, this facility is not a major source for NO_X, SO_X, PM_{10}, or CO emissions, and no increase in emissions is proposed or permitted. Therefore, this project cannot constitute an SB 288 major modification for these pollutants.

Since this facility is a major source for VOC, the project's PE2 is compared to the SB 288 Major Modification Thresholds in the following table in order to determine if further SB 288 Major Modification calculation is required.

As calculated in the Calculation section above:

SB 288 Major Modification Thresholds			
Pollutant	**Project PE2 (lb/year)**	**Threshold (lb/year)**	**SB 288 Major Modification Calculation Required?**
VOC	2,047	50,000	No

Since the SB 288 Major Modification Threshold for VOC is not surpassed with this project, this project does not constitute an SB 288 Major Modification, and no further discussion is required.

8. Federal Major Modification / New Major Source

Federal Major Modification

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

As defined in 40 CFR 51.165, Section (a)(1)(v) and part D of Title I of the CAA, a Federal Major Modification is any physical change in or change in the method of operation of a major stationary source that would result in a significant net emissions increase of any pollutant subject to regulation under the Act. The significant net emission increase threshold for each criteria pollutant is included in Rule 2201.

As demonstrated above, this facility is not a major source for NO_X, SO_X, and PM_{10} emissions. In addition, in accordance with Rule 2201, Section 3.18, there are no Federal Major Modification thresholds for CO emissions. Therefore, this project cannot constitute a Federal Major Modification and no further analysis is required for NO_X, SO_X, PM_{10}, and CO emissions.

However, this facility is a Major Source for VOC emissions. Therefore, further analysis is required to determine if this project is a Federal Major Modification for VOC.

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

Step 1: Project Emissions Increase

Since the project proponent has not provided information required to calculate BAE, the District will use the PE2 to calculate the emissions increase:

Project Emissions Increase = $\sum$(PE2 – BAE)

<u>Baseline Actual Emissions (BAE)</u>

For emission units (other than electric utility steam generating units), according to according to 40 CFR 51.165(a)(1)(xxxv)(B), the BAE are calculated as the average, in tons/year, at which the emissions unit actually emitted during any 24-month period selected by the operator within the previous 10-year period.

Using the facility's 2020 and 2021 Emissions Inventory data, Appendix E, the 2020-2021 period BAE is as follows:

<u>Throughput</u>
2020: 91.456 MMscf/year

2021: 64.540 MMscf/year
(avg): 77.998 MMscf/year

EF_{VOC} = 0.0055 lb/MMBtu = 5.5 lb/MMscf[1]

BAE = 5.5 lb/MMscf x 77.998 MMscf/year = 429 lb-VOC/year

Project Emissions Increase

As calculated in Section VII.C.2., PE2 is 2,047 lb-VOC/year.

The project's total emission increase for VOC is shown below and compared to the Federal Major Modification Threshold in the following table.

Project Emissions Increase = PE2 – BAE = 2,047 lb-VOC/year – 429 lb-VOC/year
= 1,618 lb-VOC/year

Federal Major Modification Thresholds for Emission Increases			
Pollutant	**Total Emissions Increases (lb/yr)**	**Thresholds (lb/yr)**	**Federal Major Modification?**
NO_x*	0	0	No
VOC*	1,618	0	Yes
PM_{10}	0	30,000	No
$PM_{2.5}$	0	20,000	No
SO_x	0	80,000	No

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

Since there is an increase in VOC emissions, this project constitutes a Federal Major Modification. Consequently, pursuant to Section 7.4.2.1 of District Rule 2201, any VOC Emission Reduction Credits (ERCs) used to satisfy the offset quantity required under District Rule 2201 must be surplus at the time of use (ATC issuance). Since the facility is a major source for VOC, step 2 is not required.

Separately, Federal Offset Quantity is calculated below.

Federal Offset Quantity Calculation

In accordance with the Clean Air Act, Section 182(e)(2), the offset requirements of this part shall not be applicable in areas designated as Extreme non-attainment to a modification of an existing source if such modification consists of the installation of

[1] lb/MMscf = (lb/MMBtu) x (MMBtu/1,000,000 Btu) x (1,000 Btu/scf) x (1,000,000 scf/MMscf)

equipment required to comply with an applicable attainment implementation plan or permit.

The District is designated as extreme non-attainment for $PM_{2.5}$. As discussed above, the proposed project is to tune the burner and SCR system on an existing boiler. The tuning is being completed to bring the unit into compliance with District Rule 4320. The SCR system tune up, which typically involves computational fluid dynamics modeling of the exhaust flow regime around the ammonia injection grid and possible reconfiguration of the ammonia injection points to optimize the NOx conversion efficiency of the SCR catalyst, is being done to bring the unit in to compliance with District Rule 4320. District Rule 4320 was adopted as a part of the District's 2018 $PM_{2.5}$ Attainment Plan for further reductions of nitrogen oxides (NO_X) emissions. Since this project involves the installation of equipment to comply with District Rule 4320 and the 2018 $PM_{2.5}$ Attainment Plan, this project is not subject to federal offset requirements pursuant to CAA Section 182(e)(2).

Therefore,

FOQ_{VOC} = 0 lb-VOC/year

New Major Source

As demonstrated above, this facility is not becoming a Major Source as a result of this project, therefore, this facility is not a New Major Source pursuant to 40 CFR 51.165 a(1)(iv)(A)(3).

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

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

- NO2 (as a primary pollutant)
- SO2 (as a primary pollutant)
- CO
- PM
- PM10

I. Project Location Relative to Class 1 Area

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

II. Project Emission Increase – Significance Determination

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

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

PSD Significant Emission Increase Determination: Potential to Emit (tons/year)					
	NO_2	SO_2	CO	PM	PM_{10}
Total PE from New and Modified Units	3	1	27	1	1
PSD Significant Emission Increase Thresholds	40	40	100	25	15
PSD Significant Emission Increase?	No	No	No	No	No

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

10. Quarterly Net Emissions Change (QNEC)

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

VIII. Compliance Determination

Rule 1081 Source Sampling

This rule ensures any source operation that emits or may emit air contaminants provides adequate and safe facilities for use in sampling to determine compliance as well as specifying the methods and procedures for source testing, sample collection, and compliance determination. This rule applies to any source operation that emits or may emit air contaminants.

Section 6.0 discusses test procedure requirements. The following condition will be retained on the permit to ensure continued compliance:

- For the purpose of determining compliance with an applicable standard or numerical limitation, the arithmetic mean of three test runs shall apply, unless two of the three results

are above the applicable limit. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. [District Rule 1081]

- A scheduled source test may not be discontinued solely due to the failure of one or more runs to meet applicable standards. [District Rule 1081]

- In the event that a sample is accidentally lost or conditions occur in which one of three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sampling train, extreme meteorological conditions presenting a hazard to the sampling team, or other circumstances beyond the owner or operators control, upon the APCO's approval, compliance may be determined using the arithmetic mean of the other two runs. [District Rule 1081]

Section 7.0 discusses administrative requirements. The following conditions will be placed and retained on the permit to ensure continued compliance:

- 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]

- Source sampling to determine the compliance status of an emissions source shall be witnessed or authorized by District personnel. [District Rule 1081]

- The results of each source test shall be submitted to the District within 60 days thereafter. Source tests must be submitted for all District authorized compliance source tests regardless of pass, fail, or reschedule because of failure status. A District authorized compliance source test shall not be discontinued solely due to the failure of one or more runs to meet applicable standards. [District Rule 1081]

The following requirements will be retained on the permit to ensure continued compliance:

- Source testing for ammonia slip shall be conducted utilizing BAAQMD Method ST-1B. [District Rule 1081]

- Permittee shall determine sulfur content of combusted gas annually or shall demonstrate that the combusted gas is provided from a PUC or FERC regulated source. [District Rules 1081 and 4320]

This boiler is also 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 MMBtu/hr*. Source testing requirements, in accordance with District Rules 4305, 4306, and 4320, will be discussed below.

Rule 2201 New and Modified Stationary Source Review Rule

A. Best Available Control Technology (BACT)

1. BACT Applicability

Pursuant to District Rule 2201, Section 4.1, BACT requirements are triggered on a pollutant-by-pollutant basis and on an emissions unit-by-emissions unit basis. Unless specifically exempted by Rule 2201, BACT shall be required for the following actions[2]:

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

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

As discussed in Section I above, there are no new emissions units associated with this project. Therefore, BACT for new units with PE > 2 lb/day purposes is not triggered.

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

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

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

AIPE = PE2 – HAPE

Where,
AIPE = Adjusted Increase in Permitted Emissions, (lb/day)
PE2 = Post-Project Potential to Emit, (lb/day)
HAPE = Historically Adjusted Potential to Emit, (lb/day)

HAPE = PE1 x (EF2/EF1)

Where,
PE1 = The emissions unit's PE prior to modification or relocation, (lb/day)

[2] 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.

EF2 = The emissions unit's permitted emission factor for the pollutant after modification or relocation. If EF2 is greater than EF1 then EF2/EF1 shall be set to 1

EF1 = The emissions unit's permitted emission factor for the pollutant before the modification or relocation

AIPE = PE2 – (PE1 ∗ (EF2 / EF1))

Startup and Shutdown Emissions:

Since EF1 = EF2 for all pollutants for startup and shutdown emissions, AIPE = PE2-PE1

AIPE Startup and Shutdown			
Pollutant	**PE2 (lb/day)**	**PE1 (lb/day)**	**AIPE (lb/day)**
NO_X	16.5	16.5	0.0
SO_X	0.5	0.5	0.0
PM_{10}	0.5	0.5	0.0
CO	24.8	24.8	0.0
VOC	0.9	0.9	0.0
NH_3	0.8	0.8	0.0

Steady State Emissions:

The AIPE for steady state emissions is calculated in the table below:

AIPE Steady State					
Pollutant	**PE2 (lb/day)**	**PE1 (lb/day)**	**EF2 (lb/MMBtu)**	**EF1 (lb/MMBtu)**	**AIPE (lb/day)**
NO_X	2.6	5.3	0.003	0.0062	0.0[3]
SO_X	2.4	2.4	0.00285	0.00285	0.0
PM_{10}	2.6	2.6	0.003	0.003	0.0
CO	124.1	124.1	0.146	0.146	0.0
VOC	4.7	4.7	0.0055	0.0055	0.0
NH_3	3.8	3.8	0.0045	0.0045	0.0

$AIPE = AIPE_{Startup/Shutdown} + AIPE_{Steady\ State}$

Since the AIPE for both startup/shutdown and steady state is zero for all pollutants, the overall AIPE is also zero.

[3] Calculation result 0.035 rounds to 0.0.

As demonstrated above, the AIPE is not greater than 2.0 lb/day for any pollutant. Therefore, BACT is not triggered for modification of emissions units.

d. SB 288/Federal Major Modification

As discussed in Section VII.C.7, this project does not constitute an SB 288 Major Modification for any pollutant. Therefore, BACT is not triggered for any pollutant for SB 288 Major Modification.

However, as discussed in Section VII.C.8 above, this project does constitute a Federal Major Modification for VOC. Therefore, BACT is triggered for VOC.

2. BACT Guideline

BACT Guideline 1.1.2 applies to natural gas or propane fired boilers or steam generators with heat input ratings greater than 20 MMBtu/hr. (See Appendix C)

3. Top-Down BACT Analysis

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

Pursuant to the attached Top-Down BACT Analysis (see Appendix D), BACT has been satisfied with the following:

VOC: PUC quality natural gas-firing

The following condition will be included on the ATC as a mechanism to assure continued compliance with the BACT requirements:

- The unit shall only be fired on PUC-regulated natural gas. [District Rules 2201 and 4320]

B. Offsets

1. Offset Applicability

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

The SSPE2 is compared to the offset thresholds in the following table.

Offset Determination (lb/year)					
	NO_X	**SO_X**	**PM_{10}**	**CO**	**VOC**
SSPE2	13,844	1,743	1,499	57,642	515,247
Offset Thresholds	20,000	54,750	29,200	200,000	20,000
Offsets Triggered?	No	No	No	No	Yes

2. Quantity of District Offsets Required

As seen above, the SSPE2 is greater than the offset thresholds for VOC emissions only. However, per District Rule 2201, Section 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 shall be exempt from offset requirements for all air pollutants, provided all of the following conditions are met:

- 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;

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

- 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

- The project shall not result in an increase in permitted emissions or potential to emit of more than 25 tons per year of NO_X, or 25 tons per year of VOC, or 15 tons per year of SO_X, or 15 tons per year of PM_{10}, or 50 tons per year of CO.

O'Neill Beverages Co LLC is proposing to tune the existing boiler and SCR unit. After this change, the boiler will be operating in compliance with applicable requirements of District Rule 4320. The modification does not result in an increase in the permitted rating of the boiler, and the applicant is not proposing to increase its physical or operational design. In addition, as shown in the table below, the project does not result in an increase in emissions from the facility.

Potential to Emit				
Pollutant	**Daily PE1 (lb/day)**	**Daily PE2 (lb/day)**	**Annual PE1 (lb/year)**	**Annual PE2 (lb/year)**
NO_X	21.8	19.1	7,949	6,956
SO_X	2.9	2.9	1,061	1,061
PM_{10}	3.1	3.1	1,117	1,117
CO	148.9	148.9	54,356	54,356
VOC	5.6	5.6	2,047	2,047
NH_3	4.6	4.6	1,675	1,675

Therefore, the proposed modification meets all of the criteria listed above and is exempt from the offset requirements of this rule.

C. Public Notification

1. Applicability

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

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

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

As demonstrated in Section VII.C.8 of this evaluation, this project is a Federal Major Modification. Therefore, public noticing is required for this project for Federal Major Modification purposes.

b. PE > 100 lb/day

Applications that 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 PE > 100 lb/day.

c. Offset Threshold

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

Offset Thresholds				
Pollutant	**SSPE1 (lb/year)**	**SSPE2 (lb/year)**	**Offset Threshold**	**Public Notice Required?**
NO_X	14,837	13,844	20,000 lb/year	No
SO_X	1,743	1,743	54,750 lb/year	No
PM_{10}	1,499	1,499	29,200 lb/year	No
CO	57,642	57,642	200,000 lb/year	No
VOC	515,247	515,247	20,000 lb/year	Yes

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

d. SSIPE > 20,000 lb/year

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

SSIPE Public Notice Thresholds					
Pollutant	**SSPE2 (lb/year)**	**SSPE1 (lb/year)**	**SSIPE (lb/year)**	**SSIPE Public Notice Threshold**	**Public Notice Required?**
NO_x	13,844	14,837	-993	20,000 lb/year	No
SO_x	1,743	1,743	0	20,000 lb/year	No
PM_{10}	1,499	1,499	0	20,000 lb/year	No
CO	57,642	57,642	0	20,000 lb/year	No
VOC	515,247	515,247	0	20,000 lb/year	No

As demonstrated above, the SSIPEs for all pollutants were less than 20,000 lb/year; therefore, public noticing for SSIPE purposes is not required.

e. Title V Significant Permit Modification

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

2. Public Notice Action

As discussed above, public noticing is required for this project for Federal Major Modification and Title V significant modification purposes. Therefore, public notice documents will be submitted to the California Air Resources Board (CARB), Environmental Protection Agency (EPA), and a public notice will be electronically published on the District's website prior to the issuance of the ATC for this equipment.

D. Daily Emission Limits (DELs)

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

Proposed Rule 2201 (DEL) Conditions:

- The unit shall only be fired on PUC-regulated natural gas. [District Rules 2201 and 4320]

- Except during start-up and shutdown, emissions from this unit shall not exceed any of the following emission limits: 2.5 ppmvd NOx @ 3% O2 or 0.003 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.003 lb-PM10/MMBtu, 200 ppmvd CO @ 3% O2 or 0.146 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306, and 4320]

- During start-up and shutdown, emissions from this unit shall not exceed any of the following emission limits: 80 ppmvd NOx @ 3% O2 or 0.0971 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.003 lb-PM10/MMBtu, 200 ppmvd CO @ 3% O2 or 0.146 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306, and 4320]

- Total duration of startup shall not exceed 2 hr/day. [District Rules 2201, 4305, 4306, and 4320]

- Total duration of shutdown shall not exceed 2 hr/day. [District Rules 2201, 4305, 4306, and 4320]

- The ammonia emissions from the exhaust of the SCR system serving this boiler shall not exceed 10 ppmvd @ 3% O2. [District Rule 2201]

- 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]

- The flue gas recirculation system shall be in operation at all times when the boiler is firing. [District Rule 2201]

E. Compliance Assurance

1. Source Testing

This boiler 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 MMBtu/hr*. Source testing requirements, in accordance with District Rules 4305, 4306, and 4320, will be discussed in Section VIII of this evaluation.

2. Monitoring

This boiler 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 MMBtu/hr*. Monitoring requirements, in accordance with these rules will be discussed in more detail in Section VIII of this evaluation.

3. Recordkeeping

This boiler 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 MMBtu/hr*. Recordkeeping, in accordance with these rules, will be discussed in more detail in Section VIII of this evaluation.

4. Reporting

No reporting is required to demonstrate compliance with Rule 2201.

F. Compliance Certification

Section 4.15.2 of this Rule requires the owner of a New Major Source or a source undergoing a Federal Major Modification to demonstrate to the satisfaction of the District that all other Major Sources owned by such person and operating in California are in compliance or are on a schedule for compliance with all applicable emission limitations and standards. As discussed in Section VIII above, this facility is an existing major source, and this project does

constitute a Federal Major Modification. Therefore, this requirement is applicable. O'Neill Beverages Co LLC's compliance certification is included in Appendix F.

G. Alternate Siting Analysis

The current project occurs at an existing facility. The applicant is proposing to tune an existing boiler burner and SCR catalyst.

Since the project will allow the existing boiler to come into compliance with Rule 4320 at its current location, the existing site will result in the least possible impact from the project. Alternative sites would involve the relocation and/or construction of various support structures on a much greater scale and would result in a much greater impact.

Rule 2410 Prevention of Significant Deterioration

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

Rule 2520 Federally Mandated Operating Permits

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

Section 3.20.5 states that a minor permit modification is a permit modification that is not a major modification, as defined in Rule 2201. As discussed above, this project triggers a Federal Major Modification. As a result, the proposed project constitutes a Significant Modification to the Title V Permit pursuant to Section 3.29.

As discussed above, the facility has applied for a Certificate of Conformity (COC). Therefore, the facility must apply to modify their Title V permit with an administrative amendment, prior to operating with the proposed modifications. Continued compliance with this rule is expected. The facility may construct/operate under the ATCs upon submittal of the Title V administrative amendment application. The following conditions will be included on each ATC and will assure compliance with the requirements of Rule 2520:

- {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201]

- {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]

Rule 4001 New Source Performance Standards (NSPS)

This rule incorporates NSPS from Part 60, Chapter 1, Title 40, Code of Federal Regulations (CFR); and applies to all new sources of air pollution and modifications of existing sources of air pollution listed in 40 CFR Part 60. 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 only tuning the boiler and SCR catalyst, the requirements of these sections do not apply to the unit during this modification.

However, the facility was previously subject to 40 CFR Part 60, Subpart Dc, and the following condtions will be retained on the permit to ensure continued complaince:

- A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of fuel combusted in the unit shall be installed, utilized, and maintained. [40 CFR 60.48c(g)]

- The permittee shall record and maintain records of the amount of natural gas combusted. [District Rule 2520 and 40 CFR 60.48c(g)]

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

This rule incorporates NESHAPs from Part 61, Chapter I, Subchapter C, Title 40, CFR and the NESHAPs from Part 63, Chapter I, Subchapter C, Title 40, CFR; and applies to all sources of hazardous air pollution listed in 40 CFR Part 61 or 40 CFR Part 63. However, no subparts of 40 CFR Part 61 or 40 CFR Part 63 apply to this natural gas-fired 42.5 MMBtu/hr boiler.

Rule 4101 Visible Emissions

Rule 4101 states that no person shall discharge into the atmosphere emissions of any air contaminant aggregating more than 3 minutes in any hour which is as dark as or darker than Ringelmann 1 (or 20% opacity). As the pipeline heater will be fired solely on natural gas, visible emissions are not expected to exceed Ringelmann 1 or 20% opacity. The following condition will be included on the ATC as a mechanism to assure ongoing compliance:

- {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]

Rule 4102 Nuisance

Rule 4102 prohibits discharge of air contaminants, which could cause injury, detriment, nuisance, or annoyance to the public. Public nuisance conditions are not expected as a result of these operations provided the equipment is well maintained. Therefore, compliance with this rule is expected. The following conditions will be retained on the permit to ensure compliance with this rule.

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

- {1898} The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]

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.

As demonstrated above, there are no increases in emissions associated with this project. In addition, pursuant to information provided by the applicant, the new burner should have the same exhaust parameters as the existing burner. Therefore, a health risk assessment is not necessary and no further risk analysis is required.

Rule 4201 Particulate Matter Concentration

Section 3.0 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.

The maximum particulate matter concentration for this natural gas-fired pipeline heater at dry standard conditions can be calculated as follows:

F-Factor: 8,578 dscf/MMBtu at 60 °F
PM_{10} Emission Factor: 0.003 lb-PM_{10}/MMBtu (From Section VII.B)
Percentage of PM as PM_{10} in Exhaust: 100%

$$Grain\ Loading\ (GL) = \left(\frac{0.003\ lb-PM}{MMBtu} \times \frac{7{,}000\ grain}{lb-PM}\right) \div \left(\frac{8{,}578\ ft^3}{MMBtu}\right)$$

$GL = 0.002\ grain/dscf < 0.1\ grain/dscf$

Therefore, the following condition will be listed on the permit as a mechanism to ensure compliance:

- 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_2, NO_2, and combustion contaminants (defined as total PM in Rule 1020). This rule also limits combustion contaminants to $\leq$ 0.1 gr/scf. According to AP 42 (Table 1.4-2, footnote c), all PM emissions from LPG/natural gas combustion are less than 1 μm in diameter.

District Rule 4301 Limits[1]			
Pollutant	NO_2	Total PM	SO_2
C-629-2-13 (lb/hr) Startup & Shutdown	4.1	0.13	0.12
C-629-2-13 (lb/hr) Steady State	0.13	0.13	0.12
Rule Limit (lb/hr)	140	10	200

1. lb/hr limits are calculated by multiplying Section VII.B emission factors by the boiler heat rating of 42.5 MMBtu/hr.

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

This unit is natural gas-fired with a maximum heat input of 42.5 MMBtu/hr. Pursuant to Section 2.0 of District Rule 4305, the unit is subject to District Rule 4305, *Boilers, Steam Generators and Process Heaters – Phase 2.*

In addition, the unit is also subject to 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.*

Since the emissions limits of District Rules 4306 and 4320 and all other requirements of these rules are equivalent or more stringent than District Rule 4305 requirements, compliance with District Rules 4306 and 4320 requirements will satisfy the 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

This unit is natural gas-fired with a maximum heat input of 42.5 MMBtu/hr. Pursuant to Section 2.0 of District Rule 4306, the unit is subject to District Rule 4306, *Boilers, Steam Generators and Process Heaters – Phase 3*.

In addition, the unit is also subject to District Rule 4320, *Advanced Emission Reduction Options for Boilers, Steam Generators, and Process Heaters Greater Than 5.0 MMBtu/hr.*

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

This rule limits NO_X, CO, SO_2, and PM_{10} emissions from boilers, steam generators, and process heaters rated greater than 5 MMBtu/hr. This rule also provides a compliance option of payment of fees in proportion to the actual amount of NO_X emitted over the previous year.

The boiler being modified in this project is natural gas-fired with a maximum heat input of 42.5 MMBtu/hr. Pursuant to Section 2.0 of District Rule 4320, the unit is subject to District Rule 4320.

Section 5.1

Section 5.1 states that an operator of a unit subject to this rule shall comply with all applicable requirements of the rule and one of the following, on a unit-by-unit basis:

5.1.1 Operate the unit to comply with the emission limits specified in Sections 5.2 and 5.4; or
5.1.2 Pay an annual emissions fee to the District as specified in Section 5.3 and comply with the control requirements specified in Section 5.4; or
5.1.3 Comply with the applicable Low-use Unit requirements of Section 5.5.

The permittee is proposing to modify the boiler under this permit unit in order to comply with the updated emission limits specified in Sections 5.2 and 5.4. Therefore, compliance with this section is expected.

Section 5.2, NO_X and CO Emissions Limits

Section 5.2 requires that except for units subject to Sections 5.3, NO_X and carbon monoxide (CO) emissions shall not exceed the limits specified in Table 2: Tier 2 NO_X Emission Limits. All ppmv emission limits specified in this section are referenced at dry stack gas conditions and 3.00 percent by volume stack gas oxygen.

With a maximum heat input of 42.5 MMBtu/hr, the applicable NO_X emission limit category is listed in Section 5.2, Table 2: Tier 2 NO_X Emission Limits, Category B, from District Rule 4320. In addition, units shall not be operated in a manner to which exceeds a carbon monoxide (CO) emissions limit of 400 ppmv per Section 5.2.1.

Rule 4320 NO_X and CO Emission Limits		
Category	NO_X Limits	CO Limits
B. Units with a total rated heat input > 20.0 MMBtu/hr, except for Categories C through E units	2.5 ppmv or 0.003 lb/MMBtu	400 ppmv

The applicant has proposed the following emission limits:

- the proposed NO_x emission factor is 2.5 ppmvd @ 3% O_2 (0.003 lb/MMBtu), and
- the proposed CO emission factor is 200 ppmvd @ 3% O_2 (0.148 lb/MMBtu)

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

The following condition will be included on the permit to assure continued compliance with the NO_X and CO requirements of this rule:

- Except during start-up and shutdown, emissions rates from the natural gas-fired unit shall not exceed any of the following limits: 2.5 ppmvd NO_X @ 3% O_2 or 0.003 lb-NO_X/MMBtu, 0.00285 lb-SO_X/MMBtu, 0.003 lb-PM_{10}/MMBtu, 200 ppmv CO @ 3% O_2 or 0.146 lb-CO/MMBtu, 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306, and 4320]

Section 5.3, Annual Fee Calculation

Annual Fees are required if the unit will not be meeting the emission limits in Section 5.2 of this rule. After this project, this permit unit will be capable of meeting the applicable NO_X emission limit in Section 5.2. Therefore, the annual fee-paying requirements of this section are not applicable.

Section 5.4, Particulate Matter Control Requirements

Section 5.4.1 of this rule requires the operator to comply with one of the following requirements for the steam generator:

1. Fire the boiler exclusively on PUC-quality natural gas, commercial propane, butane, 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 feet;

3. Install and properly operate an emission control system that reduces SO_2 emissions by at least 95% by weight; or limit exhaust SO_2 to less than or equal to 9 ppmv corrected to 3.0% O_2;

The facility has proposed that the boiler will be fired exclusively on PUC-regulated natural gas. Therefore, the requirements of this section will be satisfied. The following condition will assure continued compliance:

- The unit shall only be fired on PUC-regulated natural gas. [District Rules 2201 and 4320]

Section 5.5, Low-use Unit

Section 5.5 specifies requirements for units with maximum annual heat input limits of less than 1.8 billion Btu's per calendar year. O'Neill Beverages Col LLC is proposing to operate this boiler as a full-time unit with a heat input of greater than 1.8 billion Btu's per calendar year. Therefore, the proposed unit is not subject to the requirements of this section.

Section 5.6, Start-up and Shutdown Provision

Section 5.6 states that on and after the full compliance deadline in Section 5.0, the applicable emission limits of Sections 5.2 Table 1, Table 2, and 5.5.2 shall not apply during start-up or shutdown, provided an operator complies with the requirements specified in Sections 5.6.1 through 5.6.5. Sections 5.6.1 through 5.6.5 require the following:

1. The duration of each start-up or each shutdown shall not exceed two hours, except as provided in Section 5.6.3.
2. The emission control system shall be in operation and emissions shall be minimized insofar as technologically feasible during start-up or shutdown.

The following conditions will be listed on the ATC to ensure compliance:

- During start-up and shutdown, emissions from this unit shall not exceed any of the following limits: 80 ppmvd NOx @ 3% O2 or 0.0971 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.003 lb-PM10/MMBtu, 200 ppmvd CO @ 3% O2 or 0.146 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306, and 4320]

- Total duration of startup shall not exceed 2 hr/day. [District Rules 2201, 4305, 4306, and 4320]

- Total duration of shutdown shall not exceed 2 hr/day. [District Rules 2201, 4305, 4306, and 4320]

- During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. [District Rules 4305, 4306, and 4320]

Section 5.7, Monitoring Provisions

Section 5.7.1 requires that permit units subject to District Rule 4320, Section 5.2 emissions limits shall either install and maintain Continuous Emission Monitoring (CEM) equipment for NO_X, CO, and oxygen, or install and maintain APCO-approved alternate monitoring system.

The applicant has proposed to use the pre-approved alternate monitoring scheme A (pursuant to District Policy SSP-1105), which requires that monitoring of NO_X, CO, and O_2 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 listed on the permit in order to assure compliance with the requirements of the proposed alternate monitoring plan:

- The permittee shall monitor and record the stack concentration of NOx, CO, NH3, and O2 at least once during each month in which source testing is not performed. NOx, CO, and O2 monitoring shall be conducted utilizing a portable analyzer that meets District specifications. NH3 monitoring shall be conducted utilizing Draeger tubes or a District approved equivalent method. 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 it has been performed within the last month. [District Rules 4305, 4306, and 4320]

- If the NOx, CO, or NH3 concentrations, as measured by the portable analyzer or the District approved ammonia monitoring equipment, exceed the permitted levels the permittee shall return the emissions to compliant levels as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer or the ammonia monitoring equipment continue to show emission limit violations after 1 hour of operation following 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 that is subject to enforcement action has occurred. 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]

- All NOx, CO, O2, and ammonia emission readings shall be taken with the unit operating at conditions representative of normal operation or under the conditions specified in the Permit to Operate. The NOx, CO, and O2 analyzer as well as the NH3 emission monitoring equipment shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Analyzer 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 readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320]

- The permittee shall maintain records of: (1) the date and time of NOx, CO, NH3, and O2 measurements, (2) the O2 concentration in percent by volume and the measured NOx,

CO, and NH3 concentrations corrected to 3% O2, (3) make and model of the portable analyzer, (4) portable analyzer calibration records, (5) the method of determining the NH3 emission concentration, and (6) a description of any corrective action taken to maintain the emissions at or below the acceptable levels. [District Rules 4305, 4306, and 4320]

Sections 5.7.2 and 5.7.3 specify monitoring requirements for units that are subject to the low-use requirements specified in Section 5.5. As discussed above, the proposed boiler is not subject to the low-use requirements of Section 5.5. Therefore, the requirements of Sections 5.7.2 and 5.7.3 are not applicable to this unit.

Section 5.7.4 allows units operated at seasonal sources and subject to 40 CFR 60 Subpart Db to install a parametric monitoring system in lieu of a CEMS. The boiler being modified in this project is not operated at a seasonal source. Therefore, this unit is not subject to the requirements of this section.

Section 5.7.6 outlines requirements for monitoring SO_X emissions. Section 5.7.6.1 states that 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.

The facility has proposed to show compliance using the requirement in sections 5.4.1.1, firing exclusively on PUC-regulated natural gas. The following condition will be placed on the permit as a mechanism to ensure compliance with this section.

- The unit shall only be fired on PUC-regulated natural gas. [District Rules 2201 and 4320]

- Permittee shall determine sulfur content of combusted gas annually or shall demonstrate that the combusted gas is provided from a PUC or FERC regulated source. [District Rules 1081 and 4320]

Section 5.8, Compliance Determination

Section 5.8.1 requires that the operator of any unit shall have the option of complying with either the applicable heat input (lb/MMBtu) emission limits or the concentration (ppmv) emission limits specified in Section 5.1. The emission limits selected to demonstrate compliance shall be specified in the source test proposal pursuant to Rule 1081 (Source Sampling). Therefore, the following condition will be listed on the permits as follows:

- The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 4320]

Section 5.8.2 requires that 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. Therefore, the following condition will be listed on the permit as follows:

- 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 Rules 4306 and 4320. [District Rules 4305, 4306, and 4320]

- Ammonia emission readings shall be conducted at the time the NOx, CO, and O2 readings are taken. The readings shall be converted to ppmvd @ 3% O2. [District Rules 4305, 4306, and 4320]

Section 5.8.4 requires that for emissions monitoring pursuant to Sections 5.7.1 and 6.3.1 using a portable NO_X analyzer as part of an APCO approved Alternate Emissions Monitoring System, emission readings 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. Therefore, the following previously listed permit condition will be on the permit as follows:

- All NOx, CO, O2, and ammonia emission readings shall be taken with the unit operating at conditions representative of normal operation or under the conditions specified in the Permit to Operate. The NOx, CO, and O2 analyzer as well as the NH3 emission monitoring equipment shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Analyzer 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 readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306 and 4320]

Section 5.8.5 requires that for emissions source testing performed pursuant to Section 6.3.1 for the purpose of determining compliance with an applicable standard or numerical limitation of this rule, the arithmetic average of three (3) 30-consecutive-minute test runs shall apply. If two (2) of three (3) runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. Therefore, the following condition will be listed on the permit as follows:

- 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 4320]

Section 6.1, Recordkeeping

Section 6.1 requires that the records required by Sections 6.1.1 through 6.1.5 shall be maintained for five calendar years and shall be made available to the APCO upon request. Failure to maintain records or information contained in the records that demonstrate

noncompliance with the applicable requirements of this rule shall constitute a violation of this rule.

The following conditions will be listed on the permit as a mechanism to assure continued compliance:

- 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]

Section 6.1.2 requires that the operator of a unit subject to Section 5.5 shall record the amount of fuel use at least on a monthly basis. Since the units are not subject to the requirements listed in Section 5.5, it is not subject to Section 6.1.2 requirements.

Section 6.1.3 requires that the operator of a unit subject to Section 5.5.1 or 6.3.1 shall maintain records to verify that the required tune-up and the required monitoring of the operational characteristics have been performed. The units are not subject to Section 5.5.1 or 6.1.3. Therefore, the requirements of this section do not apply to these units.

Section 6.1.4 requires that the operator of a unit with startup or shutdown provisions keep records of the duration of the startups or shutdowns. The unit is subject to Section 6.1.4.

Therefore, the following condition will be listed on the permit:

- Daily records of start-up and shutdown durations and number of occurrences of each shall be maintained. [District Rules 2201 and 4320]

Section 6.1.5 requires that the operator of a unit fired on liquid fuel during PUC-quality natural gas curtailment periods record the sulfur content of the fuel, amount of fuel used, and duration of the natural gas curtailment period. The facility has not proposed the use of curtailment fuels; therefore, the requirements of this section do not apply to these units.

Section 6.2, Test Methods

Section 6.2 identifies the following test methods as District-approved source testing methods for the pollutants listed:

Test Methods		
Pollutant	**Units**	**Test Method Required**
NO_X	ppmv	EPA Method 7E or ARB Method 100
NO_X	lb/MMBtu	EPA Method 19
CO	ppmv	EPA Method 10 or ARB Method 100
Stack Gas O_2	%	EPA Method 3 or 3A, or ARB Method 100
Stack Gas Velocities	ft/min	EPA Method 2
Stack Gas Moisture Content	%	EPA Method 4

The following conditions will be listed on the permits as a mechanism to assure continued compliance:

- 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, 4306, and 4320]

- CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306, and 4320]

- Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306, and 4320]

Section 6.3, Compliance Testing

Section 6.3.1 requires that these units be tested to determine compliance with the applicable requirements of section 5.2 not less than once every 12 months. Upon demonstrating compliance on two consecutive compliance source tests, the following source test may be deferred for up to thirty-six months.

The following conditions will be listed on the ATC:

- Source testing to measure NOx, CO, and NH3 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]

- Source testing to measure NOx, CO, and NH3 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]

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.

Section 6.4, Emission Control Plan (ECP)

Section 6.4.1 requires that the operator of any unit shall submit to the APCO for approval an Emissions Control Plan according to the compliance schedule in Section 7.0 of District Rule 4320.

The applicant is proposing to operate this modified boiler in compliance with the emissions limits listed in Section 5.2, Table 2, of this rule and with periodic monitoring and source testing requirements. Therefore, the application provided as a part of this project is considered their emission control plan, and the applicant will not be required to submit an additional Emission Control Plan for this unit. No further discussion is required.

Section 7.0, Compliance Schedule

Section 7.0 indicates that an operator of steam generator must be in compliance with both the ATC deadline and compliance deadlines listed in Tables 2 of Section 5.2.

The applicant has proposed to operate this modified boiler in compliance with the emissions limits listed in Section 5.2, Table 2 of this rule and with periodic monitoring and source testing requirements. Therefore, the compliance schedule requirements are satisfied, and no further discussion is required.

Conclusion

Conditions will be incorporated into the ATC permit as a mechanism to ensure compliance with each section of this rule (see attached draft ATC in Appendix A). 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_X Major Sources that are not located west of Interstate 5 in Fresno, Kings, or Kern counties. The facility in this project is not a NO_X Major Source; therefore, the provisions of this rule do not apply.

Rule 4801 Sulfur Compounds

Section 3.1 states that a person shall not discharge into the atmosphere sulfur compounds, which would exist as a liquid or gas at standard conditions, exceeding a concentration of two-tenths (0.2) percent by volume calculated as sulfur dioxide (SO_2) at the point of discharge on a dry basis averaged over 15 consecutive minutes.

Using the ideal gas equation, the sulfur compound emissions are calculated as follows:

Volume $SO_2 = \frac{n\ RT}{P}$

With:

N = moles SO_2
T (Standard Temperature) = 60°F = 520°R
P (Standard Pressure) = 14.7 psi
R (Universal Gas Constant) = $\frac{10.73 psi \cdot ft^3}{lb \cdot mol \cdot °R}$
EPA F-Factor: 8,578 dscf/MMBtu at 60 °F

$$\frac{0.00285\ lb - SO_x}{MMBtu} x\ \frac{MMBtu}{8{,}578\ dscf} x \frac{1\ lb - mol}{64\ lb} x \frac{10.73\ psi \cdot ft^3}{lb \cdot mol \cdot °R} x \frac{520°R}{14.7\ psi} x \frac{1{,}000{,}000\ parts}{million} = \frac{2.0\ parts}{million}$$

$$Sulfur\ Concentration\ = \frac{2.0\ parts}{milli} < 2{,}000 \text{ ppmv (or 0.2\%)}$$

Therefore, compliance with District Rule 4801 requirements is expected.

California Health & Safety Code 42301.6 (School Notice)

The District has verified that this site is located within 1,000 feet of a school. However, pursuant to California Health and Safety Code 42301.6, since this project will not result in an increase in emissions, a school notice is not required.

California Environmental Quality Act (CEQA)

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

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

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. Per District Policy, project-specific greenhouse gas emissions less than or equal to 230 metric tons-CO2e/year are considered to be zero for District permitting purposes and are exempt from further environmental review.

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 for each emissions unit affected by the project the potential project emission increase is equal to or less than 2 lbs per day per pollutant. Therefore, the potential project emission increase is considerably below all annual criteria emissions CEQA significant thresholds. The activity will occur at an existing facility and involves negligible expansion of the existing or former use. Furthermore, the District determined that the activity will not have a significant effect on the environment. Therefore, the District finds that the activity is categorically exempt from the provisions of CEQA pursuant to CEQA Guideline § 15301 (Existing Facilities), and finds that the project is exempt per the common sense exemption that CEQA applies only to projects which have the potential for causing a significant effect on the environment (CEQA Guidelines §15061(b)(3)).

Indemnification Agreement/Letter of Credit Determination

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

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

IX. Recommendation

Compliance with all applicable rules and regulations is expected. Pending a successful NSR Public Noticing period, issue ATC C-629-2-13 subject to the permit conditions on the attached draft ATC in Appendix A.

X. Billing Information

Annual Permit Fees			
Permit Number	**Fee Schedule**	**Fee Description**	**Annual Fee**
C-629-2-13	3020-02-H	42.5 MMBtu/hr	$1,238

Appendixes

A. Draft ATC
B: Current PTO
C: BACT Guideline
D. BACT Analysis
E: Quarterly Net Emissions Change
F. 2020 and 2021 Emissions Inventory
G. Compliance Certification Form and Compliance Affidavit
H. ppmv to lb/MMBtu Conversion

APPENDIX A
Draft ATC

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: C-629-2-13 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: O'NEILL BEVERAGES CO LLC
MAILING ADDRESS: 8418 S LAC JAC AVE
PARLIER, CA 93648-9708

LOCATION: 8418 S LAC JAC AVE
PARLIER, CA 93648

EQUIPMENT DESCRIPTION:
MODIFICATION OF 42.5 MMBTU/HR BABCOCK AND WILCOX NATURAL GAS-FIRED BOILER (SERIAL #NB21232) WITH A CLEAVER BROOKS/INDUSTRIAL COMBUSTION MODEL LNXLG-504 SZ-1 LOW NOX BURNER, INDUCED FLUE GAS RECIRCULATION, AND SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM: TUNE BOILER TO ACHIEVE 2.5 PPMV NOX @ 3% O2 FOR COMPLIANCE WITH RULE 4320

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. 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. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
5. 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
6. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] 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.

Samir Sheikh, Executive Director / APCO

Brian Clements, Director of Permit Services

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7. The flue gas recirculation system shall be in operation at all times when the boiler is firing. [District Rule 2201] Federally Enforceable Through Title V Permit

8. {1898} The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]

9. The unit shall only be fired on PUC-regulated natural gas. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

10. Permittee shall determine sulfur content of combusted gas annually or shall demonstrate that the combusted gas is provided from a PUC or FERC regulated source. [District Rules 1081 and 4320] Federally Enforceable Through Title V Permit

11. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of fuel combusted in the unit shall be installed, utilized, and maintained. [40 CFR 60.48c(g)] Federally Enforceable Through Title V Permit

12. Except during start-up and shutdown, emissions from this unit shall not exceed any of the following limits: 2.5 ppmvd NOx @ 3% O2 or 0.003 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.003 lb-PM10/MMBtu, 200 ppmvd CO @ 3% O2 or 0.146 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

13. During start-up and shutdown, emissions from this unit shall not exceed any of the following limits: 80 ppmvd NOx @ 3% O2 or 0.0971 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.003 lb-PM10/MMBtu, 200 ppmvd CO @ 3% O2 or 0.146 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

14. The ammonia emissions from the exhaust of the SCR system serving this boiler shall not exceed 10 ppmvd @ 3% O2. [District Rule 2201] Federally Enforceable Through Title V Permit

15. Total duration of startup shall not exceed 2 hr/day. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

16. Total duration of shutdown shall not exceed 2 hr/day. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

17. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

18. The permittee shall monitor and record the stack concentration of NOx, CO, NH3, and O2 at least once during each month in which source testing is not performed. NOx, CO, and O2 monitoring shall be conducted utilizing a portable analyzer that meets District specifications. NH3 monitoring shall be conducted utilizing Draeger tubes or a District approved equivalent method. 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 it has been performed within the last month. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

19. If the NOx, CO, or NH3 concentrations, as measured by the portable analyzer or the District approved ammonia monitoring equipment, exceed the permitted levels the permittee shall return the emissions to compliant levels as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer or the ammonia monitoring equipment continue to show emission limit violations after 1 hour of operation following 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 that is subject to enforcement action has occurred. 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

CONDITIONS CONTINUE ON NEXT PAGE

20. All NOx, CO, O2, and ammonia emission readings shall be taken with the unit operating at conditions representative of normal operation or under the conditions specified in the Permit to Operate. The NOx, CO, and O2 analyzer as well as the NH3 emission monitoring equipment shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Analyzer 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 readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

21. Ammonia emission readings shall be conducted at the time the NOx, CO, and O2 readings are taken. The readings shall be converted to ppmvd @ 3% O2. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

22. The permittee shall maintain records of: (1) the date and time of NOx, CO, NH3, and O2 measurements, (2) the O2 concentration in percent by volume and the measured NOx, CO, and NH3 concentrations corrected to 3% O2, (3) make and model of the portable analyzer, (4) portable analyzer calibration records, (5) the method of determining the NH3 emission concentration, and (6) a description of any corrective action taken to maintain the emissions at or below the acceptable levels. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

23. Source testing to measure NOx, CO, and NH3 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] Federally Enforceable Through Title V Permit

24. Source testing to measure NOx, CO, and NH3 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] Federally Enforceable Through Title V Permit

25. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

26. 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, 4306, and 4320] Federally Enforceable Through Title V Permit

27. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

28. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

29. Source testing for ammonia slip shall be conducted utilizing BAAQMD Method ST-1B. [District Rule 1081] Federally Enforceable Through Title V Permit

30. 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 Rules 4306 and 4320. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

31. 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 4320] Federally Enforceable Through Title V Permit

32. For the purpose of determining compliance with an applicable standard or numerical limitation, the arithmetic mean of three test runs shall apply, unless two of the three results are above the applicable limit. If two of three runs are above an applicable limit, the test cannot be used to demonstrate compliance with an applicable limit. [District Rule 1081] Federally Enforceable Through Title V Permit

33. A scheduled source test may not be discontinued solely due to the failure of one or more runs to meet applicable standards. [District Rule 1081] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

34. In the event that a sample is accidentally lost or conditions occur in which one of three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sampling train, extreme meteorological conditions presenting a hazard to the sampling team, or other circumstances beyond the owner or operators control, upon the APCO's approval, compliance may be determined using the arithmetic mean of the other two runs. [District Rule 1081] Federally Enforceable Through Title V Permit

35. 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

36. Source sampling to determine the compliance status of an emissions source shall be witnessed or authorized by District personnel. [District Rule 1081] Federally Enforceable Through Title V Permit

37. The results of each source test shall be submitted to the District within 60 days thereafter. Source tests must be submitted for all District authorized compliance source tests regardless of pass, fail, or reschedule because of failure status. A District authorized compliance source test shall not be discontinued solely due to the failure of one or more runs to meet applicable standards. [District Rule 1081] Federally Enforceable Through Title V Permit

38. The permittee shall keep daily records of the amount of natural gas combusted for a period of five years, and shall make records available for inspection upon request. [District Rule 2520 and 40 CFR 60.48c(g)] Federally Enforceable Through Title V Permit

39. Daily records of start-up and shutdown durations and number of occurrences of each shall be maintained. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

40. 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] Federally Enforceable Through Title V Permit

APPENDIX B
Current PTO

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-629-2-12 **EXPIRATION DATE:** 07/31/2025

EQUIPMENT DESCRIPTION:
42.5 MMBTU/HR BABCOCK AND WILCOX NATURAL GAS-FIRED BOILER (SERIAL #NB21232) WITH A CLEAVER BROOKS/INDUSTRIAL COMBUSTION MODEL LNXLG-504 SZ-1 LOW NOX BURNER, INDUCED FLUE GAS RECIRCULATION, AND SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM

PERMIT UNIT REQUIREMENTS

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 flue gas recirculation system shall be in operation at all times when the boiler is firing. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
5. The unit shall only be fired on PUC-regulated natural gas. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
6. Permittee shall determine sulfur content of combusted gas annually or shall demonstrate that the combusted gas is provided from a PUC or FERC regulated source. [District Rules 1081 and 4320] Federally Enforceable Through Title V Permit
7. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of fuel combusted in the unit shall be installed, utilized and maintained. [40 CFR 60.48 (c)(g)] Federally Enforceable Through Title V Permit
8. Except during start-up and shutdown, emissions from this unit shall not exceed any of the following limits: 5 ppmvd NOx @ 3% O2 or 0.0062 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.003 lb-PM10/MMBtu, 200 ppmvd CO @ 3% O2 or 0.146 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
9. During start-up and shutdown emissions from this unit shall not exceed any of the following limits: 80 ppmvd NOx @ 3% O2 or 0.0971 lb-NOx/MMBtu, 0.00285 lb-SOx/MMBtu, 0.003 lb-PM10/MMBtu, 200 ppmvd CO @ 3% O2 or 0.146 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
10. The ammonia emissions from the exhaust of the SCR system serving this boiler shall not exceed 10 ppmvd @ 3% O2. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Total duration of startup shall not exceed 2 hr/day. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
12. Total duration of shutdown shall not exceed 2 hr/day. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

14. The permittee shall monitor and record the stack concentration of NOx, CO, NH3, and O2 at least once during each month in which source testing is not performed. NOx, CO, and O2 monitoring shall be conducted utilizing a portable analyzer that meets District specifications. NH3 monitoring shall be conducted utilizing Draeger tubes or a District approved equivalent method. 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 it has been performed within the last month. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

15. If the NOx, CO, or NH3 concentrations, as measured by the portable analyzer or the District approved ammonia monitoring equipment, exceed the permitted levels the permittee shall return the emissions to compliant levels as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer or the ammonia monitoring equipment continue to show emission limit violations after 1 hour of operation following 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 that is subject to enforcement action has occurred. 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] Federally Enforceable Through Title V Permit

16. All NOx, CO, O2, and ammonia emission readings shall be taken with the unit operating at conditions representative of normal operation or under the conditions specified in the Permit to Operate. The NOx, CO, and O2 analyzer as well as the NH3 emission monitoring equipment shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Analyzer 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 readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

17. Ammonia emission readings shall be conducted at the time the NOx, CO, and O2 readings are taken. The readings shall be converted to ppmvd @ 3% O2. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

18. The permittee shall maintain records of: (1) the date and time of NOx, CO, NH3, and O2 measurements, (2) the O2 concentration in percent by volume and the measured NOx, CO, and NH3 concentrations corrected to 3% O2, (3) make and model of the portable analyzer, (4) portable analyzer calibration records, (5) the method of determining the NH3 emission concentration, and (6) a description of any corrective action taken to maintain the emissions at or below the acceptable levels. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

19. Source testing to measure NOx, CO, and NH3 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] Federally Enforceable Through Title V Permit

20. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

21. 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

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

22. 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, 4306, and 4320] Federally Enforceable Through Title V Permit

23. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

24. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

25. Source testing for ammonia slip shall be conducted utilizing BAAQMD Method ST-1B. [District Rule 1081] Federally Enforceable Through Title V Permit

26. 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 4320] Federally Enforceable Through Title V Permit

27. 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 4320] Federally Enforceable Through Title V Permit

28. In the event that a sample is accidentally lost or conditions occur in which one of three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sampling train, extreme meteorological conditions presenting a hazard to the sampling team, or other circumstances beyond the owner or operators control, upon the APCO's approval, compliance may be determined using the arithmetic mean of the other two runs. [District Rule 1081] Federally Enforceable Through Title V Permit

29. Source sampling to determine the compliance status of an emissions source shall be witnessed or authorized by District personnel. [District Rule 1081] Federally Enforceable Through Title V Permit

30. The results of each source test shall be submitted to the District within 60 days thereafter. Source tests must be submitted for all District authorized compliance source tests regardless of pass, fail or reschedule because of failure status. A District authorized compliance source test shall not be discontinued solely due to the failure of one or more runs to meet applicable standards. [District Rule 1081] Federally Enforceable Through Title V Permit

31. The permittee shall keep daily records of the amount of natural gas combusted for a period of five years, and shall make records available for inspection upon request. [District Rule 2520 and 40 CFR 60.48 (c)(g)] Federally Enforceable Through Title V Permit

32. Daily records of start-up and shutdown durations and number of occurrences of each shall be maintained. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

33. 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] Federally Enforceable Through Title V Permit

APPENDIX C
BACT Guideline

San Joaquin Valley
Unified Air Pollution Control District

Best Available Control Technology (BACT) Guideline 1.1.2*

Last Update: 11/30/2022

Natural gas or propane fired boilers/steam generators** with heat input rate greater than 20 MMBtu/hr

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
VOC	PUC quality natural gas or propane with LPG backup		
SOx	PUC quality natural gas or propane with LPG backup		
PM10	PUC quality natural gas or propane with LPG backup		
NOx	2.5 ppmvd @ 3% O2 (0.003 lb/MMBtu)		
CO	50 ppmvd @ 3% O2 (0.037 lb/MMBtu)		

* This is a Summary Page for this Class of Source.
** This guideline is applicable to units fired solely on natural gas from a PUC or FERC regulated source or propane/LPG. This guideline is not applicable to Oilfield Steam Generators or Electric Utility Steam Generating Units.

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

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

APPENDIX D
BACT Analysis

Top-Down BACT Analysis for 42.5 MMBtu/hr Natural Gas-Fired Boiler

The District did not have an approved BACT Guideline for this source category when the ATC application for this modification was deemed complete, June 16, 2022. However, on November 30, 2022, the District approved BACT Guideline 1.1.2, which applies to boilers fired on natural gas or propane with heat input rates greater than 20 MMBtu/hr. Since the BACT analysis for this guideline was also released on November 30, 2022, it is logical to assume a project specific BACT analysis completed today would produce the same results. Therefore, BACT Guideline 1.1.2 will be used to determine BACT for VOC emissions for the proposed modification of this 42.5 MMBtu/hr natural gas-fired boiler.

BACT Analysis for VOC Emissions:

a. Step 1 - Identify all control technologies

BACT Guideline 1.1.2 identifies only the following option:

- PUC quality natural gas or propane with LPG backup

b. Step 2 - Eliminate technologically infeasible options

The control option listed in Step 1 is not technologically infeasible.

c. Step 3 - Rank remaining options by control effectiveness

No ranking needs to be done because there is only one control option listed in Step 1.

d. Step 4 - Cost Effectiveness Analysis

The applicant has proposed the only control option remaining under consideration. Therefore, a cost effectiveness analysis is not required.

e. Step 5 - Select BACT

Pursuant to the above BACT Analysis, BACT for VOC emissions from the boiler is the use of PUC quality natural gas as fuel. The applicant has proposed to use only PUC quality natural gas (regulated by the PUC or FERC) as fuel. Therefore, the BACT requirements for VOC emissions from the modification of the existing 42.5 MMBtu/hr boiler will be satisfied.

APPENDIX E
Quarterly Net Emissions Change

Quarterly Net Emissions Change (QNEC)

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

QNEC = PE2 - PE1, where:

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

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

$PE2_{quarterly}$ = $PE2_{annual}$ ÷ 4 quarters/year
$PE2_{NOx,qtr}$ = $PE2_{NOx,annual}$ ÷ 4 quarters/year
= 6,956 lb/year ÷ 4 qtr/year
= 1,739 lb-NO_X/qtr

$PE1_{quarterly}$= $PE1_{annual}$ ÷ 4 quarters/year
$PE1_{NOx,qtr}$ = $PE1_{NOx,annual}$ ÷ 4 quarters/year
= 7,949 lb/year ÷ 4 qtr/year
= 1,987.25 lb-NO_X/qtr

Quarterly NEC [QNEC]			
Pollutant	**PE2 (lb/yr)**	**PE1 (lb/yr)**	**QNEC (lb/qtr)**
NO_X	6,956	7,949	-248.25
SO_X	1,061	1,061	0
PM_{10}	1,117	1,117	0
CO	54,356	54,356	0
VOC	2,047	2,047	0

APPENDIX F
2020 and 2021 Emissions Inventory

2021 year

Equipment Type	Yearly Process Rate	Units / Source Classification Code	NOX Lb / Unit	VOC Lb / Unit	SOX Lb / Unit	CO Lb / Unit	PM10 Lb / Unit
47.8 MMBtu/Hr Boiler - NG	64.54	MILLION CUBIC FEET BURNED	9.0	5.5	2.85	23.82	7.6
		10200602	.29	.18	.09	.77	.25

2020 year

Equipment Type	Yearly Process Rate	Units / Source Classification Code	NOX Lb / Unit	VOC Lb / Unit	SOX Lb / Unit	CO Lb / Unit	PM10 Lb / Unit
47.8 MMBtu/Hr Boiler - NG	91.456	MILLION CUBIC FEET BURNED	9.0	5.5	2.85	23.82	7.6
		10200602	.41	.25	.13	1.09	.35

APPENDIX G
Compliance Certification Form and Compliance Affidavit

San Joaquin Valley Air Pollution Control District

TITLE V MODIFICATION - COMPLIANCE CERTIFICATION FORM

I. TYPE OF PERMIT ACTION (Check appropriate box)

☐ ADMINISTRATIVE AMENDMENT ☐ MINOR MODIFICATION ☑ SIGNIFICANT MODIFICATION

COMPANY NAME: O'Neill Beverages Co.	FACILITY ID: C-629
1. Type of Organization: ☑ Corporation ☐ Sole Ownership ☐ Government ☐ Partnership ☐ Utility	
2. Owner's Name: Jeffrey B. O'Neill	
3. Agent to the Owner: Matthew S. Towers	

II. COMPLIANCE CERTIFICATION (Read each statement carefully and initial **applicable** circles for confirmation):

(EK) Based on information and belief formed after reasonable inquiry, the equipment identified in this application will continue to comply with the applicable federal requirement(s).

(EK) Based on information and belief formed after reasonable inquiry, the equipment identified in this application will comply with applicable federal requirement(s) that will become effective during the permit term, on a timely basis.

(EK) Corrected information will be provided to the District when I become aware that incorrect or incomplete information has been submitted.

(EK) Based on information and belief formed after reasonable inquiry, information and statements in the submitted application package, including all accompanying reports, and required certifications are true, accurate, and complete.

(EK) For minor modifications, this application meets the criteria for use of minor permit modification procedures pursuant to District Rule 2520.

I declare, under penalty of perjury under the laws of the state of California, that the forgoing is correct and true:

[signature] 12/6/22

Signature of Responsible Official — Date

Erik Ettner

Name of Responsible Official (please print)

Sr. Manager of Winery Operations

Title of Responsible Official (please print)

January 3rd, 2023

Mr. Nick Peirce

San Joaquin Valley Air Pollution Control District

4800 Enterprise Way

Modesto CA 95356-8718

Subject: Compliance Statement for O'Neill Beverages Co LLC

Dear Mr. Peirce:

In accordance with Rule 2201, Section 4.15, "Additional Requirements for New Major Sources and Federal Major Modifications," O'Neill Beverages Co LLC is pleased to provide this compliance statement regarding its proposed boiler-tuning project at a winery, N-1221149.

All major stationary sources in California owned or operated by O'Neill Beverages Co LLC, or by any entity controlling, controlled by, or under common control with O'Neill Beverages Co, LLC, and which are subject to emission limitations, are in compliance or on a schedule for compliance with all applicable emission limitations and standards. These sources include one or more of the following facilities:

Facility #1: O'Neill Vintners and Distillers, 8418 S. Lac Jac Avenue, Parlier, Ca, 93648

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

Please contact me if you have any questions regarding this certification.

Sincerely,

Erik Ettner, Senior Manager of Winery Operations

O'Neill Beverages Co LLC

APPENDIX H
ppmv to lb/MMBtu Conversion

	SELECTION #
GAS (NATURAL)	4

STANDARD O2 CORRECTION FOR EXTERNAL COMBUSTION IS 3%		
Type of fuel (use table above)	4	GAS
O2 correction (i.e., 3%)	3	%
Enter concentrations		
Ammonia	10	ppmv

CALCULATED EQUIVALENT LB/MMBTU VALUES		
NOx	0.0045	LB/MMBTU

pV = R*T		
pressure (p)	1	atm
universal gas constant (R*)	0.7302	atm-scf/lbmole-oR
temperature (oF)	60	oF
calculated molar specific volume (V)	379.5	scf/lbmole
Molecular weights Ammonia (NH3)	17.031	lb/lb-mole

F FACTORS FROM EPA METHOD 19			
GAS (NATURAL)	8710	DSCF/MMBTU	GAS
F FACTOR USED IN CALCULATIONS	8710	DSCF/MMBTU	GAS